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Report of the Expert Consultation on the Operationalisation of the Caribbean Sea Commission: building a science-policy interface for ocean governance in the Wider Caribbean

Solutions Centre, University of the West Indies, Cave Hill Campus, Barbados

July 7th – 9th, 2010



Centre for Resource Management and Environmental Studies (CERMES)
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SUMMARY

The ‘Expert Consultation on Operationalisation of the Caribbean Sea Commission: Building a science-policy interface for ocean governance in the Wider Caribbean, was held at the University of the West Indies, Cave Hill Campus, Barbados July 7-9, 2010. It was funded by the Ministry for Foreign Affairs of the Government of Finland and was organised by the Centre for Resource Management and Environmental Studies (CERMES) of University of the West Indies, Cave Hill Campus on behalf of the Association of Caribbean States (ACS). The ACS and partners have been pursuing the Caribbean Sea Initiative since 1998 through the UNGA Resolution (63-214) ‘Towards the sustainable development of the Caribbean Sea for present and future generations’ at the UN General Assembly. In the process, the CSC was established in 2008 to promote and oversee the sustainable use of the Caribbean Sea.

The CSC is envisaged as having the following characteristics:

- It would make best use of the full range of information and expertise available in the region by creating an effective network;
- It would allow for two-way communication and information flow: upwards from information sources through an advisory mechanism to policy makers and back down for feedback and queries;
- Its processes would be regular and transparent.

Since the establishment of the CSC, the ACS and the CSC have been working towards developing appropriate structures and arrangements for its work. The Expert Consultation was held to carry forward the process of establishing the CSC and its functions. The purpose of the Expert Consultation was to:

- Share information on the plans for and status of ‘Operationalisation of the Caribbean Sea Commission’ with critical partners;
- Obtain their feedback on the feasibility of the proposals and ideas for improvement of the plan;
- Build consensus on how the partners can work together to achieve the overall goal of ocean governance in the Wider Caribbean Region.

The 54 participants attending the Consultation were from a wide range of countries and organisations. Overall, 30 regional organisations or organisations operating in the region were represented. These included: Intergovernmental organisations, United Nations organisations, NGOs, Regional Projects, and Universities. Experts from the Black Sea and Baltic Sea Commissions as well as extra-regional institutions also provided inputs. There were over 30 technical presentations highlighting the work of the partners attending.

The Consultation was organised to address three topics that are significant for the CSC:

1. Regional ocean governance architecture and the role of the CSC
2. The science-policy interface of the CSC
3. The information system to support the interface.

As a basis for discussion of how to adapt and proceed with the plans of the CSC, each topic started with presentations about CSC plans to date as well as those of many different partner organisations. Next, in facilitated breakout sessions, Working Groups discussed the three consultation topics and provided their observations and recommendations. They pursued the three topics by addressing four questions:

1. What aspects of the approaches and proposals you have heard in the meeting seem feasible and beneficial in making the Caribbean Sea Commission more effective?
2. What aspects of these approaches and proposals would cause the most difficulty for implementation?
3. What aspects of these approaches and proposals would you change or improve to make the Caribbean Sea Commission more effective?
4. What would it take for you to buy into this overall process?

Participants concluded that:

- The Caribbean Sea is a common shared resource and that the function of the CSC should be to oversee and promote the sustainable use of the Caribbean Sea as a whole;
- Considerable expertise and information is available within the various groups present, but seldom used by decision makers;
- The likely reason is that many sources are unconnected to science-policy interfaces;
- There is the need for a regional science-policy interface;
- The CSC should focus on the connection between science, policy making and policy coherence at the regional level;
- The proposed structure was workable with modifications;
- They were committed to working together to build this interface.

The ideas, recommendations and constraints from the Working Groups were summarised in the following themes:

- The CSC can promote cooperation at both regional and national levels by facilitating networking among existing formal bodies and promoting mechanisms needed to build consensus at national and regional levels.
- The CSC should work as much as possible through existing mechanisms and organisations to avoid overlaps and duplication of effort. It must clearly define its own role in relation to regional partners.
- National level inputs and engagement are critical for success as decisions of the CSC are implemented by countries. Mechanisms are needed for obtaining national commitment for implementation
- Clear planning should underlie the development of the CSC in all areas to produce clear definitions of the roles and functions of the CSC and its Sub-commissions as well as of roles and responsibilities of partners. A Strategic Action Plan that includes regular evaluation of programmes to identify strengths, weaknesses and effectiveness is needed.
- Legal arrangements are important and ultimately a legally binding instrument under which there could be consequences or sanctions will be needed to protect the resources of the Caribbean.
- Dedicated financial and human resources are essential for the CSC to achieve its objectives. These include both start-up and sustainable financing. The CSC needs a dedicated Secretariat with staff, funding, and appropriate location to support its work and that of the Sub-commissions.
- Several key principles for success include: transparency of activities and open access to sharing of information; inclusivity, with national and regional partners being fully engaged in planning and decision-making; efficiency and effectiveness, ensured through regular monitoring and evaluation.

- The information system to support the science policy interface should be distributed rather than a central repository. It should provide a regional portal for data and information gathering and interpretation. It should facilitate equitable access to information in participating countries and by all organisations in the region.
- Communication will be the key to the success of the CSC. Information and communication strategies are needed for policy makers, national and regional partners and the general public. Communication should promote bringing science to policy makers and help policy makers frame appropriate questions for scientists. Public information is a key element if the benefits of the CSC are to be recognised in the region
- Capacity building is essential for success of the CSC especially the information system, owing to widely different capacities of countries to provide and generate information.

In conclusion, it was agreed that the proposed structure and operation of the CSC could provide considerable added-value to the current ocean governance arrangements in the Wider Caribbean Region. Many participants indicated their willingness and the readiness of their organisations to take part in the process of building the CSC

1 INTRODUCTION

The Association of Caribbean States (ACS) has been pursuing the Caribbean Sea Initiative since 1998 through the promotion of the UN Resolution ‘Towards the sustainable development of the Caribbean Sea for present and future generations’ at the UN General Assembly. An outcome of this process was the establishment of the Caribbean Sea Commission (CSC) in 2008 as a body to promote and oversee the sustainable use of the Caribbean Sea. Since its establishment the ACS and CSC have been working towards developing appropriate structures and arrangements for the work of the CSC.

The operation of the CSC is supported by three Sub-commissions: Scientific and Technical, Governance, Outreach and Public Information and the Legal Sub-commission. The key function of the Subcommissions is to acquire and synthesise information relevant to ocean governance in the Wider Caribbean Region (ACS region) and based on this to provide policy advice to the CSC for review and onward communication to the Council of Ministers.

The current challenge is to develop and operationalise the mechanism by which (1) the Sub-commissions will be able to fulfill their function, and (2) the CSC proper will review the information provided, transform it into advice for the ACS Council and facilitate feedback from the council through the Sub-commissions to stakeholders in the region.

As currently proposed the overall mechanism would have the following characteristics. It would:

- Make best use of the full range of information and expertise available in the region by creating an effective network;
- Allow for communication and information flow in two directions (1) upwards from information sources through synthesis mechanism to policy makers and (2) downwards, the reverse direction, for feedback and queries;
- Be regular and transparent.

The next steps are to operationalise these arrangements. This is envisaged as being initiated through a first phase of four years duration with a focus on living marine resources of the Wider Caribbean Region, including their linkages with productive sectors such as fisheries and tourism, and with reference to the threats posed by climate change.

The Expert Consultation on ‘Operationalisation of the Caribbean Sea Commission - Building a science-policy interface for ocean governance in the Wider Caribbean,’ was held to carry forward the process of establishing the CSC and its functions. The Consultation was structured so as to sequentially address three topics that are critical to the CSC: (1) regional ocean governance architecture and the role of the CSC, (2) processes for the science-policy interface that the CSC proposes to establish, and (3) the information system needed to support that interface. This structure reflects the considerable progress that has been made in developing approaches and plans for ocean governance in the Wider Caribbean Region over the past 10 years and in getting national endorsement for these.

2 OPENING CEREMONY

Professor Robin Mahon was Master of Ceremonies at the opening ceremony. Participants were welcomed by Professor Eudine Barriteau, Deputy Principal, University of the West Indies, Cave Hill Campus and Ambassador Luis Fernando Andrade Falla, Secretary General of the ACS. The

Meeting was then opened, in order of appearance by Dr. Angela Cropper, Deputy Executive Director UNEP; H.E. Mikko Pyhälä, Ambassador of Finland to CARICOM and the OECS and the Hon. Christopher Sinckler, MP Acting Minister of Foreign Affairs and Foreign Trade, Barbados.



Speakers at the opening ceremony, from left to right: Hon Christopher Sinckler, MP Acting Minister of Foreign Affairs and Foreign Trade, Barbados; Professor Eudine Barriteau, Deputy Principal, University of the West Indies Cave Hill Campus; H.E. Mikko Pyhälä, Ambassador of Finland to CARICOM and the OECS; Dr. Angela Cropper, Deputy Executive Director UNEP, Nairobi, Kenya; and Ambassador Luis Fernando Andrade Falla, Secretary General of the ACS.

2.1 Introduction by Master of Ceremonies

The Honourable Christopher Sinckler, MP Acting Minister of Foreign Affairs and Foreign Trade; His Excellency Mr. Mikko Pyhälä, Ambassador Extraordinary and Plenipotentiary of Finland to CARICOM and the OECS; Ambassador Luis Fernando Andrade Falla, Secretary General of the Association of Caribbean States; Dr. Eudine Barriteau, Professor of Gender and Public Policy and Deputy Principal, University of the West Indies, Cave Hill Campus; distinguished guests; ladies and gentlemen. Welcome to the Opening Ceremony for this ‘Expert Consultation on Operationalisation of the Caribbean Sea Commission: Building a science-policy interface for ocean governance in the Wider Caribbean’ that will be held here over the next three days, under the auspices of the Association of Caribbean States and the Caribbean Sea Commission with the financial support of the Government of Finland through its Ministry of Foreign Affairs.

CERMES was asked to organise this consultation – partly due to CERMES role as Co-chair of the Scientific and Technical Subcommission of the Caribbean Sea Commission (CSC), but I suspect also due to its reputation for putting on cost-effective meetings. So much so, that some regulars at CERMES organised meetings see it as an opportunity to lose some weight wandering around in Sunset Crest trying to find food.

But, members of the head table, I can assure you that the people before you in this room have no difficulty in ‘going the extra mile’ whether by air on foot in order to get the job done. Before you are the people whose dedication is making Caribbean ocean and coastal governance happen, and they can make much more happen if given appropriate support.

A little background to what we are trying to do here would be appropriate. The ACS has been pursuing the Caribbean Sea Initiative since 1998 through the promotion of the UN Resolution ‘Towards the sustainable development of the Caribbean Sea for present and future generations’ at the UN General Assembly. An outcome of this process was the establishment of the CSC in

2008 as a body to promote and oversee the sustainable use of the Caribbean Sea, including the full range of maritime uses.

Since its establishment the CSC has been working towards developing appropriate structures and arrangements for its work. This structure has been described and is now being adopted by the CSC. The next steps are to operationalise these arrangements.

Head table, colleagues, some have referred to the CSC as the best kept secret in the Caribbean. We need to move beyond that now. The purpose of this Expert Consultation is to:

- Share information on the plans for and status of ‘Operationalisation of the Caribbean Sea Commission’ with critical partners,
- Obtain their feedback on the feasibility of the proposals and ideas for improvement of the plan,
- Build a common vision of how the partners can work together to achieve the overall goal of ocean governance in the Wider Caribbean Region.

There is much more to be said about CSC which Ambassador Andrade will speak of later down in this morning programme. But I do not know what members of the head table have in store for us so I will stop here before I encroach too much on their presentations.

2.2 Welcome address by Professor Eudine Barriteau, Acting Principal, UWI, Cave Hill Campus

Chair, Professor Robin Mahon, the Honourable Christopher Sinckler, Member of Parliament and Acting Minister of Foreign Affairs and Foreign Trade, His Excellency, Mr. Mikko Pyhälä, Ambassador Extraordinary and Plenipotentiary of Finland to CARICOM and the OECS, Ambassador Luis Fernando Andrade Falla, Secretary General of the Association of Caribbean States (ACS), members of the diplomatic corps, distinguished guests, delegates, ladies and gentlemen, a very good morning to you. On behalf of Sir Hilary Beckles and the executive Management team, it gives me profound pleasure to welcome you this morning to the University of the West Indies, Cave Hill Campus. To those of you who are visiting from abroad, a very special welcome, both to our university and to Barbados. Even as you deliberate and determine effective strategies for ocean governance, I sincerely hope you will get to sample the delicacies from our surrounding seas, (and let me just assist, and insist that you whisper to your hosts, “Oistins Friday night Fish Lime”). This of course can only be capped by the many wonderful pleasures associated with our incredible beaches, all to be experienced within the laws of Barbados.

The Cave Hill Campus is particularly proud to host this conference which epitomises the ongoing collaborations among members of the diplomatic, scientific and academic communities. Given the cross-fertilisation of experts for this week’s deliberations, we expect your negotiations and planning will produce solutions and strategies for protecting a resource vital to the economic and cultural survival of the Caribbean. I am unable, and frankly do not want to entertain the idea of the Caribbean without the Caribbean Sea as we know it. It is an economic resource and geopolitical reality that has defined the contours of our history and is essential to our existence and survival.

The Cave Hill Campus is very pleased that your deliberations this week will also focus on safeguarding our marine resources from natural and man-made disasters and thus further the

founding principle of the Caribbean Sea Commission. The Association of Caribbean States established the Commission to promote and achieve the preservation and sustainable use of the Caribbean Sea through the formulation of guidelines for coastal and marine management.

We have all watched with horror the oil spill disaster within the Gulf of Mexico. Daily Caribbean people question the potential impact of this disaster, were it to reach Caribbean shores. No one has to tell us how such a calamity happening within the Caribbean Sea would imperil our economies. Tourism and fisheries, in particular, would suffer incalculable damage while there would be widespread environmental destruction of flora and fauna that could take decades, if not centuries, to recover. The Cave Hill Campus' concern to contribute to the protection of our ocean resources is more substantive than hoping we do not experience similar disasters.

In 2009 the University launched the Caribbean Reef Education Initiative (CREATive) Project to save the region's rapidly dying coral reefs, a resource that has been depleted by overexploitation, pollution and climate change. Coral reefs are the foundation of the Caribbean's tourism and fishing industries and account for a sixth of the region's jobs, a third of its income and 500,000 tonnes of its food. The Project funded by the European Union and executed by our marine biologists seeks to increase the number of skilled, Caribbean professionals with applicable knowledge of coral biology and management of conservation methods. It does so also by training lecturers from a number of regional institutions and Caribbean countries. The project will also produce a university-level text book and a degree course both of which will address coral biology and management from a Caribbean perspective. Indeed, the university's research relative to the region's marine resources incorporates legal studies to determine marine boundary delimitation and exclusive economic zones which have aided in Caribbean judicial decision-making.

It is not accidental that this conference is being hosted by CERMES at the Cave Hill Campus. Professor Mahon and CERMES are partners in the project on the Sustainable Development of the Caribbean Sea. As the region's leading research institution, UWI has contributed to the formulation of policy affecting every aspect of Caribbean economy and society and we will continue to do so. It is a responsibility the leaders of the University take very seriously. This underscores our role as a critical partner in the regional development process, our deep commitment to regionalism and the ongoing, useful application of our research to all aspects of regional development. Our research-intensive focus has strengthened UWI's reputation as an internationally-recognised research institution. Coastal and marine research, in particular, has enhanced UWI's image to such an extent that the reputation of CERMES is widely renowned. Caribbean women and men in the regional fishing industry benefit from CERMES' outstanding work. Other UWI marine research initiatives, such as the Barbados Sea Turtle Project, have gained regional and international recognition and respect.

Distinguished delegates, among the international supporters for this conference is the Government of Finland, one of the many countries with which Cave Hill has formed a strategic academic alliance. The Campus has actively pursued partnerships with Finnish universities because that country is one of the most innovative in Europe. Cave Hill has established cooperative exchange agreements with two Finnish universities, and will receive two students from Tampere University, and three from Laurea University in the coming semester. I wish to state, Ambassador, we can easily accommodate and look forward to welcoming many more. We are currently negotiating an exchange agreement with Aalto, the new Finnish university which

emphasizes interdisciplinary work as its core focus, and we are actively seeking other agreements. Of course, these agreements also enable Cave Hill students to spend up to a semester abroad where they may earn credits towards their degrees and gain valuable life experiences in an international environment. As a background to our developing programs in sports medicine, Dr. Subir Gupta from the Faculty of Medical Sciences at Cave Hill is consulting this summer with the Research Institute for Olympic Sports in Finland. Cave Hill employs a Professor of Vascular Surgery, Prof. Hannu Savolainen, who teaches in our Faculty of Medical Sciences and works at the Queen Elizabeth Hospital. He and our own Dr. Thea Scantlebury Manning of the Faculty of Pure and Applied Sciences have just begun collaborating on research related to diabetes in both countries. We have established links with the Institute of Biotechnology at the University of Helsinki, which has offered our researchers a place in their program. So in terms of internationalizing our research and programmes, Cave Hill has not been keeping still. We have been traversing the globe seeking partnerships of excellence, and in a cost cutting manner. In this regard, we welcome the collaboration, not only of our host Government – the Government of Barbados - but that of Finland.

Ladies and gentlemen, in closing I note that the purpose of this expert consultation is to establish mechanisms to facilitate the flow of communication and information to further operationalise the Caribbean Sea Commission. It is our hope that this information finds its way into channels that can inform Caribbean residents of the value of preserving their marine environment so we all can play our own part in the sustainable development of the Caribbean Sea. If in your discussions you can accomplish that latter objective of many this would be very commendable. As you head from this conference on the weekend, permit me to invoke my gender variation of a popular saying which states - give a woman a fish and you feed her for a day, teach a woman to fish - and you have got the whole weekend to yourself, and of course for Mullins, Browns Beach, Batts Rock, Bathsheba, Long Beach, Shark Hole, Schooner Bay... Excellencies, Ladies and Gentlemen, again, I bid you a warm welcome, and wish you a most successful conference.

2.3 Welcome by Ambassador Luis Fernando Andrade Falla, Secretary General of the Association of Caribbean States

Honourable Acting Minister of Foreign Affairs and Foreign Trade, Ambassador Pyhälä of Finland, and Deputy Principal Barriteau of the University of the West Indies. The ACS is very pleased to make opening remarks at this critical consultation. We have all been working very hard to move the process forward with the establishment of the Caribbean Sea Commission and this Consultation should make a significant difference in that process.

The UN declaration on the Caribbean Sea as a special area has been a high priority for the ACS and its partners for over a decade now. It has been put forward to several UN General Assemblies for their attention and endorsement. The most recent occasion was in 2008 when we decided to take a more technical approach and put the science issues before the UNGA. In that mission we were joined by Prof. Robin Mahon and Prof. John Agard and visited Secretary General Ban Ki-Moon as well as the Chairman of the General Assembly at the time, the Ambassador of Nicaragua, Miguel d' Escoto, the former Foreign Minister, and then we met with the Group of Latin America and the Caribbean (GRULAC) as well as the Group of 77. Finally we met with many national delegations.

At the time we took advantage of the political clout that the region had with the multilateral organisations; with Cuba being chair of the Allied Movement, Antigua & Barbuda as Chair of

GRULAC and the roles of Haiti and Nicaragua in the General Assembly. We strongly promoted the new resolution but with the focus on the scientific aspect.

The Caribbean Sea has been in a process of significant deterioration for many reasons, and we made a very strong case at that time at the UN. We were well received in general and we got a resolution that was very close to recognizing the region as a special area in the context of sustainable development. It was not easy to reach this point but based on the efforts of the scientists and experts in the international community we have been able to make good progress.

I also want to highlight Finland's participation in this process. In January 2009, I was invited to Finland for a day and a half visit, but it was the most fulfilling visit I have ever taken during my tenure as Secretary General. The agenda included the Baltic Sea Commission. Some may ask, what is the relation between the Baltic Sea Commission and the Caribbean Sea? The Baltic Sea is a very contaminated sea, and out of this situation, the Commission has developed the governance within the nine member countries to reverse that process. We in the Caribbean Sea are in the process of deterioration but we do not want to go to the extremes. Using that experience, Finland has been forthcoming with support for us, not only in regard to the Caribbean Sea but in other areas of interest to the Association of Caribbean States. Here, we have representatives of Finland and of the Baltic Sea Commission, and we also have a representative of the Black Sea Commission.

We are not going to reinvent anything here; but we are going to exchange experiences, knowledge and expertise. It is a unique gathering here in which the institutions of the region are represented. We started with Prof. Agard and Prof. Mahon, and now we have this wide group of experts; we even have people from the Gulf of Mexico, where so much is at stake with the oil spill and with unknown consequences linked to the Caribbean Sea later. This has to be highlighted as an issue for the wider region.

We are very proud to have representatives from CARICOM, SICA, Panama, Colombia, and Venezuela, allow me to highlight the contribution of Cuba here in Association of Caribbean States and this Commission. There are representatives from the United States and scientists from all around the region as well as Canada, Australia and the European Union.

This issue of the Caribbean Sea Commission is going to take off with this Consultation. The outcome of this meeting will give a clear perspective of how to rationalise the Caribbean Sea Commission. Although there are political pressures and threats, I hope that we will stand very strongly and have an endorsement, not only to the operation but to keep the networking of the people that are here. We are moving forward and are very optimistic that there will be fruitful and honest exchanges in the context of the forum. Make friends, and look forward to making the Caribbean Sea the top priority in the region.

2.4 Welcome by Dr Angela Cropper, Deputy Executive Director of the United Nations Environment Programme

Delegates, participants, colleagues and friends attending this meeting to put into place the operation of the Caribbean Sea Commission. Good morning to you. My name is Angela Cropper. I am the Deputy Executive Director of the United Nations Environment Programme, and I am delighted to have the opportunity to greet you as you gather to take part in this very important process. I would like to thank my colleague, Professor Robin Mahon, for giving me the opportunity to bring you greetings on this occasion and welcome you to this meeting. Also to

have the opportunity to identify with the cause of the Caribbean Sea, with which some of you know I have been associated, especially through the conduct of the Caribbean Sea Ecosystem Assessment that was done some time ago. I really am sorry that I am not there with you in the warmth of Barbados. As you can see, its winter here in Nairobi and we have to cover up a little bit more, but at least I am standing to greet you here in the gardens of the UNEP Headquarters; but know that I regret not being there to put my feet in the sand in the beaches of Barbados.

As we all know - and you would know especially since you are a participant in this meeting - the Caribbean Sea is a very complex ecosystem. This is not only because of its size, but also because of the large number of countries which share this Caribbean Sea and for whom the Caribbean Sea is an ecological and economic lifeline. We know, and say very often, that the Caribbean Sea unites all of these countries of the Association of Caribbean States who are represented in the Caribbean Sea Commission. At the same time, we know that the Caribbean Sea itself has been a waterway which was configured in history, to divide the Caribbean Sea and the people who share this Sea. It is because of that, that it is all the more important to recognise and provide for the complexity of its governance.

For those of you who are very familiar with the Caribbean - as I expect most of you are - you know there are many things being done in the Caribbean and for the Caribbean Sea. However, they tend to be disconnected, unable to form a coherent mass and the whole is never great than the sum of the parts; which is what we have to work towards. You know more than I do all the details of what makes the Caribbean Sea so important so I will not go into those details now, but I simply want to emphasise the importance of taking a good hold on the governance of the Caribbean Sea. We have some existing instruments that contribute to that, especially the Cartagena Convention, for which the Caribbean Regional Coordinating Unit of UNEP provides a Secretariat located in Kingston, Jamaica. This deals with one part of the issues with which we are concerned and ought to be concerned, but there are many more issues that need attention that fall outside the Cartagena Convention. As you know, there are economic and trade decisions that are taken in other parts of the world that affect the Caribbean Sea and its functioning as an ecosystem. As you know also, through the process of Climate Change, decisions about energy use and energy patterns taken elsewhere by other countries around the globe also have the potential to affect the Caribbean Sea in a negative way, calling into question and putting at risk its services upon which we so much depend in the Caribbean.

For this reason, it is important to focus on the governance of the Caribbean Sea, and to focus the science that is available about the sea into the processes of policy making and responses to what we need to do. It is also important to focus on the disparate activities taking place right now and to see how all of these can make a better whole, but also how the local relates to the regional and the regional to the global, in addition to the global to the regional and thereafter the local. These are all the issues of governance for which we need a more coherent, authoritative and comprehensive governance framework. I see the Caribbean Sea Commission as one instrument that could - if we are successful in putting it into operation - actually bring about that process of governance and help us realise the objective of protecting the Caribbean Sea, ensuring its sustainability and therefore the sustainability of all the societies that so much depend upon it.

So you have a great task at hand, in the course of that I think it would be important for you to recognise the instruments, processes and technical services already established to see how they can be brought into the operation of the Caribbean Sea Commission. I have in mind the Regional Coordinating Unit for the Caribbean Regional Seas Programme which is provided by

UNEP out of Jamaica, to see how its own data management services, for example can be useful to the needs of the Sub-commissions that might be created under the Caribbean Sea Commission.

Once again let me say that I regret not being there to be part of this exercise but you can imagine that my heart is there. I wish you a successful meeting and look forward to seeing the outcomes of it and I hope that with this one step we can come closer to putting into place the framework for giving effect to all the objectives that we and the UN have declared in the resolution that we have been pursuing for so many years in the UN General Assembly. To all my friends there hello, have a good time. Enjoy Barbados and hope to see you soon.

2.5 Remarks by Mr. Mikko Pyhälä, Ambassador of Finland to CARICOM and the OECS

Honourable Acting Minister of Foreign Affairs and Foreign Trade, The Secretary General of the Association of Caribbean States, The Deputy Principal of the University of the West Indies, Excellencies, ladies and Gentlemen. On behalf of the Finnish Government it is an honour to address this gathering of experts. This meeting, with the concrete aim of the operationalisation of the Caribbean Sea Commission, would not have come about without the energy and vision of quite a number of people. One of them, without any doubt, is Ambassador Luis Andrade, the Secretary General of the ACS. When visiting Helsinki in January 2009, Andrade made the acquaintance of the Helsinki Commission, or HELCOM, which is the sister organisation of the Caribbean Sea Commission in our northern corner of Europe.

Other key persons are the national representatives of the Caribbean states, who endorsed the initiative of professional contacts between the CSC and HELCOM. Also the Finnish Ministry of Foreign Affairs has welcomed this inter-regional collaboration and agreed to support it financially. During the past year of preparation, also many international organisations, universities and other agencies have given valuable inputs. We are happy to see so many of you represented here today. The Government of Barbados, as the current Chair of the CSC, has supported the initiative from the outset. Honourable Minister, may I thank your Government for your active and generous contribution. Last but not least, it is my pleasure to mention Professor Robin Mahon, who has acted as the *primus motor* for this initiative for a long time. As organisers of this gathering, he and his many collaborators in the Centre for Resource Management and Environmental Studies, at the University of the West Indies, deserve our sincere thanks and appreciation.

On this occasion, I am honoured to convey to you the greetings of the Finnish Minister for Trade and Development, who has taken a special interest in the cooperation between Finland and the Caribbean. Similarly, since the matters of the Baltic Sea environment, including HELCOM, lie with our Minister for the Environment, I am in a position to transmit also a second Minister's greetings. The Minister for the Environment says, in an address which I shall distribute, that she would have been delighted to attend this ceremony today, but it regrettably coincided with other duties abroad at this same moment.

Distinguished audience, the sea performs many functions. A regional sea is an ecosystem, a source of food and nutrition, it provides routes for transportation of people and goods, and is an excellent environment for recreation. These aspects are relevant here in the Caribbean, just as they are for us around the Baltic Sea. The Baltic Sea, however, is probably more fragile than most other regional seas. It is an inland sea, with narrow inlets through the Straits of Denmark.

Its waters are brackish, and salt water pulses into it from the North Sea are so small that the waters of the Baltic are renewed only every 25 to 30 years. It is shallow, with an average depth of 55 meters only, which makes the total amount of water limited. We are lucky that no oil has been found in the Baltic. Just think of an oil rig accident in these conditions! But transport of oil in tankers has increased from 80 million tonnes in 2000 to over 170 million tonnes last year. Ports in the region handle over 820 million tons of cargo per year. At each moment some 2 000 ships are plying the Baltic, including the narrow Gulf of Finland and Gulf of Bothnia. These ships include passenger ferries and cruise ships. The number of passengers each year exceeds 90 million. For the world's cruise line industry the Baltic Sea represents about 25 per cent of the total value. The port of Helsinki last month set a new record, when 13 cruise liners visited the city the same day. While serious maritime accidents have been largely avoided, the Baltic Sea has been polluted for other reasons. Almost 100 million people live in the catchment area of the Baltic and, for centuries, sewage and waste from the big cities around it have produced organic contaminants and caused eutrophication, as has the run-off into the water from agriculture.

Finland, at the bottom of the Baltic Sea, depends on maritime transport much as if it were an island. Our country has a sea coast so tortuous that it measures 6300 kilometers, not counting the shore lines of the islands. The islands of our archipelago total 80 000, counting those which exceed 10 by 10 meters. For all purposes - fishing, transport, dwelling, tourism and recreation - the Baltic Sea has been, and is, an essential part of the life of the Finns. It is no coincidence that Finland was one of the principal initiators to a convention to promote the protection of these beloved but delicate waters.

The first convention on the Baltic Sea was concluded in 1974. At that time, the Cold War divided the Baltic, with the Soviet Union and Poland to the east. No political regional cooperation was possible in those days, but the common concerns for the health of the Baltic Sea brought the leaders to the same table. It took 6 years, however, for the signatories to ratify the Convention. The secretariat started at an interim basis, and the Helsinki Commission or HELCOM became fully operative in 1980. Since then, many strategies and action plans have been drawn up and carried out. The Convention has been amplified and revised. In his statement this afternoon, Mr. Anders Alm will go into the details of the Commission's functions and the results achieved. Let me just say that while a lot has been done, even more can, and should be done.

The conditions for regional cooperation improved radically in the 1990s when the Cold War came to an end. In 1992 the first political platform for regional cooperation was set up, the Council of Baltic Sea States (CBSS). In some respects, it is a parallel organisation to the ACS. Today there are nine independent states around the Baltic, eight of them member states of the European Union, and Russia. The European Commission is a signatory to the new Baltic Sea Convention, and recently the EU adopted a regional strategy for this area. The experience of marine protection we have collected over the past 36 years point to the importance of certain key issues. First, it is important to have as a basis a legally binding convention. This adds to the commitment of the contracting parties and helps to ensure that the activities have financial support.

Secondly, the cooperation should be agreed to and carried out by all countries, large or small, on an equal footing. An efficient secretariat is needed for promotion, coordination and monitoring the actions. Using a lead country approach for certain tasks, facilitates the process.

Thirdly, many regionally important issues should be brought up for global consideration. One central forum is the International Maritime Organisation (IMO). For example, several locally more stringent rules concerning the Baltic Sea have been agreed to in the IMO on the initiative of the Baltic coastal states, having first been coordinated within HELCOM.

Finally, the ultimate political responsibility lies not with organisations but with states themselves. And while the participation of each and every one is essential, only joint and collective action will do to improve the condition of the sea and to solve its problems.

Indeed, a good example of the collective will to improve the protection of the Baltic Sea was given this year in January. At the initiative of a business-led action group, a Baltic Sea Action Summit was organised in Helsinki. The idea was to invite commitments for new actions to save or protect the environment. In the form of a public-private partnership, stakeholders ranging from NGOs, to small and big enterprises, to municipalities and government were invited. The meeting was attended by heads of state or government, including the King of Sweden. The organisers expected 50 commitments to be given, but the result was 137. One of the most important promises was that of Russia to treat the waste waters of Kaliningrad.

Distinguished audience, Finland is convinced that peace can be strengthened through poverty reduction and sustainable development. In this part of the world, our main bilateral partner is Nicaragua, while several states of the Wider Caribbean are included in the Finnish regional programmes in Central America. Finland is also contributing to many United Nations multilateral programmes which cover this region. And, of course, the European Union is another main channel of our multilateral aid.

But today our focus is the Caribbean Sea Commission. Let me conclude by expressing the great pleasure we have had in joining forces with you in the preparation of this Expert Consultation. We are looking forward to very interesting discussions, and we wish this meeting the best of success.

2.6 Remarks by The Honourable Christopher Sinckler, Acting Minister of Foreign Affairs and Foreign Trade

A pleasant good morning to all: His Excellency Mr. Mikko Pyhälä, Ambassador Extraordinary and Plenipotentiary of Finland to CARICOM and the OECS, Ambassador Luis Fernando Andrade Falla, Secretary General of the Association of Caribbean States (ACS), Dr. Eudine Barriteau, Professor of Gender and Public Policy and Deputy Principal, University of the West Indies (UWI), Cave Hill Campus, Distinguished guests, ladies and gentlemen.

Let me first on behalf of the Government and people of Barbados, welcome all visitors to the country, and in particular to the picturesque UWI Cave Hill Campus. I also wish on behalf of the Members of the ACS Caribbean Sea Commission (CSC) and on behalf of the Chair of the CSC, Senator the Honorable Maxine McClean, who regrettably could not be here today, to welcome you all to this most important regional expert consultation on operationalizing the CSC. Let me also take this opportunity to extend sincere thanks to all whose earnest and committed efforts made this consultation possible.

I am honored to have been invited to address this technical consultation, the central objective of which is to deliberate a vision and relevant structures for a body established to strategise a way forward for efforts to preserve and protect the Caribbean Sea. In 1999 a grouping of Caribbean States tabled a resolution in the United Nations General Assembly (UNGA) urging international

recognition of the Caribbean Sea as a special area within the context of sustainable development; what is commonly referred to as the Caribbean Sea Initiative. This proposal, informed by the Barbados Programme of Action (BPoA) adopted at the Global Conference on the Sustainable Development of Small Island Developing States (SIDs) held in Barbados in 1994, explicitly outlined the heavy dependence of SIDs on their coastal and marine resources, and urged the need for the urgent and effective management of these. This process was spearheaded by the ACS and buttressed by the technical support of the Economic Commission for Latin America and the Caribbean Sub-Regional Office, Port-of-Spain.

On considering the matter the General Assembly did not grant the special area designation, but conceded that given the many competing demands placed on the shared marine body and the concomitant vulnerabilities, there was need to formulate an integrated management approach to the Caribbean Sea. ACS States nonetheless remained committed to their pursuit of the CSI, and since 1999 six General Assembly resolutions have been adopted on the Caribbean Sea, none however, conferring the special area designation being pursued by the ACS countries. The Commission is currently working to implement the most recent of these accords, Resolution 63/214, '*Towards the sustainable development of the Caribbean Sea for present and future generations,*' and report to the Sixty-Fifth (65th) Session of the UNGA on these efforts in the fall of 2010. It is unlikely that the special area designation will be granted this year, but Members of the Commission are nonetheless committed to the multilateral process, and in particular the in-depth work required to clearly outline and articulate the nature and implications of the special area designation required. This was the mandate set for the CSC by the ACS, and its fulfillment remains integral to the progressive development of UN General Assembly resolutions on the Caribbean Sea.

The convocation of this technical consultation reinforces ACS Member States' commitment to this process, including working assiduously to outline the Commission's structures and work programme, all necessary to facilitating a functional and effective CSC. Our goal therefore, over the next three days is to advance this important process, and in particular to exchange ideas and foster feedback on a common vision for the CSC within the context of ocean governance in the Wider Caribbean Region (WCR). It is these structures to be articulated and deliberated here that will aid ACS Member States in formulating an integrated management framework for the Caribbean Sea, and ultimately provide the basis on which special recognition and treatment can be afforded to this marine body. Included in this, must be the various national and regional efforts necessary to compliment international activity. It must be understood that in addition to assistance of the international community, Caribbean efforts are also required to protect its common patrimony. There is therefore a need for synergies and mutual respect among all parties engaged in efforts to preserve and promote the Caribbean Sea.

The range of participants represented at this consultation reflects the breadth of interests and work currently involved in marine governance in the Wider Caribbean. Your participation here today also carries with it the opportunity to reach and garner broad-based support for the Caribbean Sea Initiative as you take back the valuable knowledge shared over the next few days to your various constituencies. Such support is vital to the ownership and commitment required by Caribbean people to advance the Caribbean Sea Initiative. This process is not simply a political pursuit. The Caribbean Sea belongs to Caribbean people. To the extent that our various islands and territories are divided by water, they are also brought together by the Caribbean Sea. It is on this basis therefore - this pillar of regional identity and cooperation -, that I urge us all

here today to focus our various resources, our diverse human, technical and financial assets, with those of the international community to elaborate a structured mechanism sufficiently robust and fully empowered to lead the way towards safeguarding our common patrimony.

Our outcomes at the end of day three will be important, and more so because they will be included in the Commission's report to the United Nations Secretary General on its implementation of UNGA Resolution 63/214. It is imperative therefore, that the international community be made privy to the sense of ownership and commitment that Caribbean people have with regards to their Sea. The recent and continuing oil spill in the Gulf of Mexico, the implications of which are still unknown for this region, has reinforced this need, and such tragic circumstances, if they could be imagined in this region would have immediate and long-term dire consequences for our people and our economies. Let us therefore seize this opportunity to act, and act forthrightly to operationalise and empower a Caribbean Sea Commission that is armed with the necessary wherewithal to strategically guide the most worthwhile pursuit of preservation and protection of the Caribbean Sea, for present and future generations within the context of sustainable development. Let us also use this consultation as a basis on which to reinforce for ourselves and to indicate to the international community as well, our unwavering commitment and determination to gain international recognition of the Caribbean Sea as a special area within the context of sustainable development. Ladies and gentlemen, I thank you.

3 THE CONSULTATION

3.1 Overview of the process

Prof. Mahon explained that the purpose of the Expert Consultation was to:

- Share information on the plans for and status of 'Operationalisation of the Caribbean Sea Commission' with critical partners,
- Obtain feedback on the feasibility of the proposals and ideas for improvement of the plan,
- Build consensus on how the partners can work together to achieve the overall goal of ocean governance in the Wider Caribbean Region.

He noted that the outputs will include: consensus on the way forward with establishing and operating the CSC, wider publicity for and awareness of the CSC, input to the report of the ACS SG to the UNGA 2010 outlining the way ahead.

The Consultation, he stated, addresses three interrelated topics that underpin the operationalisation of the CSC:

- Regional ocean governance arrangement (architecture),
- The science-policy interface for ocean governance,
- The data and information platform to support the science policy interface.

The process for each topic was outlined by Prof. Mahon:

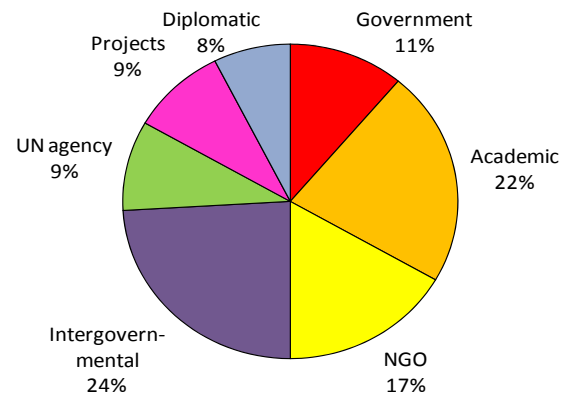
- Presentations with questions for clarification;

- An open microphone session, to provide an opportunity for participants, especially non-presenting organisations, to briefly share their ideas and perceived roles in regional ocean governance;
- A general discussion; and
- A breakout session.

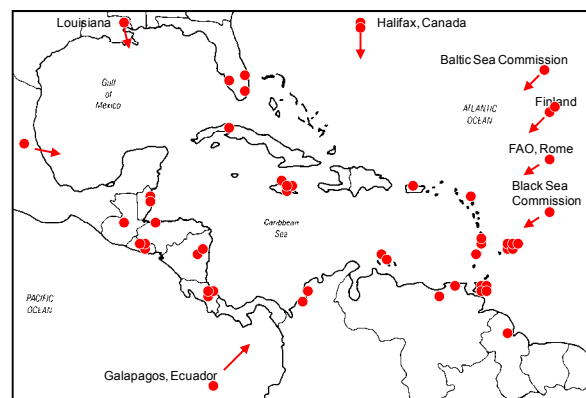
He closed by stating that the above process would be followed by panel comments, and an overall discussion of the working group reports.

3.2 The participants - who they were and where they came from

The 54 participants attending the Consultation were from a wide range of backgrounds, countries and organisations (Appendix 2). Overall, 30 regional organisations or organisations operating in the region were represented. These included: **Intergovernmental organisations** [Association of Caribbean States (ACS), Caribbean Regional Fisheries Mechanism (CRFM), Caribbean Community and Common Market (CARICOM), Sistema de la Integración Centroamericana (SICA), OECS Environment and Sustainable Development Unit, Organización del Sector Pesquero y Acuícola del Istmo Centroamericano (OSPESCA)]; **United Nations Organisations** (Economic Commission for Latin America and the Caribbean (ECLAC), Food and Agriculture Organisation (FAO), International Maritime Organisation (IMO), UNESCO-Intergovernmental Oceanographic Commission (IOC) IOCARIBE, United Nations Environment Programme, Caribbean Environment Programme (UNEP CEP RCU)); **NGOs** (Association of Marine Laboratories of the Caribbean (AMLC), Caribbean Natural Resources Institute (CANARI),



The affiliations of the participants



The geographic origin of the participants

Carmabi Foundation, Conservation International, Gulf and Caribbean Fisheries Institute, International Union for the Conservation of Nature (IUCN), Panos Caribbean, The Nature Conservancy (TNC)]; **Regional Projects** (ACP Fish II Programme, GEF Caribbean Large Marine Ecosystem (CLME) Project, GEF Programa Golfo de Honduras, GEF Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem, GEF Integrated Watershed and Coastal Area Management Programme (IWCAM)); and **Universities** (Universidad de la Habana, Universidad de Oriente of Venezuela, University of South Florida, University of the West Indies- Barbados, Jamaica, Trinidad & Tobago Campuses). There were experts from the Black Sea and Baltic Sea Commissions as well as extra-regional institutions (Dalhousie University, Atlantic Coastal Zone Information Steering Committee (ACZISC)).

4 MARINE GOVERNANCE ARCHITECTURE FOR THE REGION

4.1 Presentations

For the first session of the Expert Consultation Meeting which addressed the topic on ‘Marine Governance Architecture for the Region’, there were ten presentations. The session was chaired by Mr. Nestor Windevoxhel. Following are abstracts of the presentations, in order of appearance along with participants’ questions and answers.

4.1.1 Caribbean Sea Ecosystem Assessment - CARSEA (John Agard)

The aim of this consultation is to advance the operationalisation of the Caribbean Sea Commission of the ACS as it develops a holistic governance framework that will enable all stakeholders to contribute to managing the Caribbean Sea in a manner that will maintain the goods and services that are essential to human well-being. It aims to contribute to the implementation of Resolution 57/261 of the UN General Assembly on 20 December 2003 “Promoting an integrated management approach to the Caribbean Sea area in the context of sustainable development”.

Caribbean Sea Ecosystem Assessment (CARSEA), a regional component of the Millennium Ecosystem Assessment, provided a picture of the status of the Caribbean Sea and the implications of its degradations for human well-being in the region. The Caribbean Sea is a critical resource for the people of the region. It provides many ecosystem services that contribute to human well-being and poverty reduction. These include: provisioning services (e.g. fish); regulating services (e.g. climate regulation, disease control, detoxification); cultural services which are non-material benefits obtained from ecosystems (e.g. recreational, aesthetic, inspirational, educational); and supporting services that maintain the condition for life in the sea (e.g. nutrient cycling).

Overall fishery landings in the region have been declining since 1998. The Caribbean Sea fish landings are worth about 1 billion US\$ per annum. The mean trophic level of the Caribbean Sea has been declining since 1956. Fisheries provide jobs and fish protein: about 500,000 jobs, >US\$1 billion in exports and 7% of total protein consumption in the Caribbean. The insular Caribbean is the most dependent region in the world on tourism relative to its size. Most tourism is marine related. Tourism directly provides about 570,000 jobs, US\$ 6.5 billion contribution to GDP. It also indirectly provides about 1,857,000 jobs (12% of total employment) and contributes 23.1 billion to GDP (13% of total GDP). With regard to marine biodiversity, there have been long-term region-wide declines in Caribbean coral cover. The estimated potential economic losses due to coral reef degradation by 2050 (after WRI , 2005) due to loss of services such as fisheries tourism and shoreline protection is about 3.1 - 4.6 billion US\$.

To date responses have included many programmes, projects, policies, but these have not been adequate in achieving sustainable management of the sea. Some reasons are: disconnected programmes/lack of cooperation, ineffective legislation, and poor commitment. Institutional arrangements for Caribbean Sea have not been adequate for the complex task of governance of this transboundary resource. The operationalisation of the Caribbean Sea Commission can be expected to contribute to improved regional ocean governance.

Q: How do we persuade people of the importance of the services provided by live coral reefs compared to dead coral reefs?

A: There is a continuous sustainability of the sea when the coral is living. Dead reef will provide services for a while, but it will be eroded and then the services will cease. In response to these concerns there is a 6.6 million GEF funded project. Another project is currently looking at contingent valuation and willingness to pay. A global assessment of services is being done in order to value services. There are many projects, programmes and policies but these have not been adequate in achieving sustainable management due to disconnected programmes, lack of cooperation and ineffective legislation. We need to convince people of the Caribbean Sea's worth.

4.1.2 The large marine ecosystem governance framework as a model for the Wider Caribbean Region (Lucia Fanning, Robin Mahon, Patrick McConney)

The challenge of identifying the appropriate rights, rules and decision-making procedures that allow for the sustainable management of the shared resources of the Caribbean Sea is a daunting one. However, there are many lessons which can be learned in designing an effective governance system for the region so as to effectively manage human-environment interactions. These lessons originate from both an exogenous body of governance-related research and from work currently being undertaken within the Caribbean, guided by its specific environmental, social and economic context. Drawing on these lessons, this presentation will highlight key design characteristics of an effective governance system to sustainably manage the shared resources of the Caribbean Sea. It will also outline how the Large Marine Ecosystem (LME) Governance Framework that is currently being adopted within the Caribbean LME project, responds to both the need for a diagnostic assessment of the issues affecting sustainability and provides essential guidance on priorities for action at appropriate levels and scales.

Q: What are the measures of success of the framework?

A: The measures of success are context specific. It is suggested that you understand the context and let the system identify what will determine success. The focus should be on equity, participation, transparency and accountability. Effectiveness should be a means of measuring sustainable governance.

Q: Have you considered the possibility of dealing with the legal aspect? We must take into consideration that countries need to come up with policies for a Caribbean Sea communal assessment and an environmental assessment. Given that the countries have their own territorial waters it will be difficult to govern the Caribbean Sea through cooperation.

A: Regional and international agreements will come into play to deal with the legal aspect and they include principles such as cooperation.

4.1.3 National level interactions with regional organisations (Patricia Goff, Lucia Fanning, Robin Mahon, Patrick McConney, Kemraj Parsram, Tim Shaw, Bertha Simmons)

Countries engage with regional and international organisations and projects to pursue sustainable development. The nature of this engagement determines how effective, efficient and

representative these interactions are and ultimately the extent to which countries benefit from them. This study explores the nature of the interface between national and regional/international levels for ocean governance in the Wider Caribbean Region. It looks at national level mechanisms for interaction and their characteristics. It also examines the extent to which these mechanisms are formal, informal, transparent, intersectoral, engage a full range of national stakeholders, and involve feedback mechanisms. The research is based on the Large Marine Ecosystem Governance Framework and focuses on the part of the framework that relates to national-regional linkages and the underlying policy cycles at the national level. Initial results suggest that many countries have informal mechanisms, but few are truly intersectoral and they seldom extend beyond governmental stakeholders. These findings have consequences for how the Caribbean Sea Commission and initiatives such as the Caribbean Large Marine Ecosystem (CLME) Project prepare for engaging decision-making processes at national and regional levels.

Q: How was the information used from this project to identify persons for this meeting, given the inappropriate representation at meetings?

A: The intention of this meeting is at the regional level, the study focused at the national level.

Q: How does a person get selected? Were there any views on this in the study?

A: There are many outcome scenarios. This study is a preliminary study, the CLME goes deeper. The findings so far suggest that those not briefed did not feel that they had the knowledge to participate effectively.

4.1.4 Engaging stakeholders in generating advice – the case of fishers (Terrence Phillips)

The presentation pointed to the importance of small scale fisheries in the socio-economic development of the CARICOM/CARIFORUM region and the efforts being made to involve fishers and their organisations in generating advice and influencing the development of fisheries policy within the CRFM. It highlighted the results of the 2004 needs assessment study of Caribbean fisher folk organisations that was undertaken by the CRFM; the involvement of fisher folk leaders and their organisations in the review of the draft report and the subsequent development of the project to promote the formation of the Caribbean network of national fisher folk organisations as well as the strengthening of the capacities of fisher folk organisations at the local, regional and national levels in such areas as planning, management, communication and advocacy. The significance of the partnership of fisher folk organisations, national fisheries authorities, regional technical agencies and applied research institutes in project implementation, which covered such aspects as national consultations on the formation of national fisher folk organisations and the regional network, strategic and action planning, etc., was mentioned. It further demonstrated the means used by the Caribbean Network of Fisher Folk Organisations – Coordinating Unit (the body set up by the fisher folk leaders in 2007 to promote the formation of a network) to influence the development of fisheries policies, e.g. the elaboration of a Common Fisheries Policy for the CARICOM region, IUU fishing and trade in fish and fish products, at the levels of the Forum and Ministerial Council of the CRFM. Among the lessons learned were that effective participatory national resource management required an institutional culture that genuinely embraced shared policy and decision-making and collaborative management; a significant investment in capacity building is required over a period of several years in order to facilitate the development of a sustainable network or organisation; partnerships between

technical agencies, applied research institutions and resource users can contribute to enhanced capacity and understanding of all parties and lead to the development of consensual positions; and that effective policy influencing requires the use of multiple communication products and channels.

Q: Are fisher folk involved in data collection?

A: Yes fisher folk are contributing to data collection and most of the collection depends on them.

Q: Do you anticipate that you will be able to turn fisher folk organisations to function as independent organisations? Is that the goal?

A: This is the goal, maintain independence while being able to access support from other agencies, develop capacity and work independently towards their goals.

Q: We are having a lot of success with fisher folk consultation, information and work. They not only comply but begin to regulate. The buy-in of that level of stakeholders is very important for policy. Did you find that having fisher folk understand projects involved them in research buy-in with local stakeholders?

A: Yes we did. They have been sharing information at various meetings, discussions on their issues, development and improvement of their livelihoods. We make the connection between livelihoods, conservation and management.

CRFM Comment : Fisher folk organisations really need support from other organisations that have an interest. They make great sacrifices and there is little support for what they are doing. They can do so much more with the help from regional and international organisations.

4.1.5 The role of the Caribbean Sea Commission (CSC) in regional governance (Luis Fernando Andrade Falla)

This presentation provided background on the Caribbean Sea Initiative (CSI) and the Caribbean Sea Commission (CSC) as well as a perspective on its role in regional ocean governance. The ACS and partners have been pursuing the CSI since 1998 mainly through promotion of the UN Resolution '*Towards the sustainable development of the Caribbean Sea for present and future generations*' at the UN General Assembly. It was first adopted in 1999. It was then reported upon, revised and readopted in 2000, 2002, 2004, 2006 and 2008 (Res 63.214). In the resolution the UNGA '*Recognises that the Caribbean Sea is an area of unique biodiversity and a highly fragile ecosystem that requires relevant regional and international development partners to work together to develop and implement regional initiatives to promote the sustainable conservation and management of coastal and marine resources, including, inter alia, the consideration of the concept of the Caribbean Sea as a special area in the context of sustainable development, including its designation as such without prejudice to relevant international law*'. The CSC was established in 2008 to promote and oversee the sustainable use of the Caribbean Sea. The Commission comprises: National delegations of Members and Associate Members, The Secretary General of the Association, several organisations (The Economic Commission of Latin America and the Caribbean (ECLAC), The Caribbean Community (CARICOM), The Latin American Economic System (CELA), The Central American Integration System (SICA), The Permanent Secretariat for the General Agreement on Central American Economic Integration (SIECA), The Caribbean Tourism Organisation (CTO)) and three experts appointed by the Secretary General in consultation with Members and Associate Members. The Caribbean Sea

Commission consists of: a Bureau comprising the Chair, the two Vice-chairs, and the Secretariat; a Legal Sub-commission; a Scientific and Technical Sub-commission; a Governance, Public Information and Outreach Sub-commission; a Budget Committee. The Sub-commissions will support the mandate of the CSC by: clarifying information that the CSC needs to meet its mandate to provide advice to the ACS council; identifying individuals, organisations or projects that can provide the expertise and information needed; coordinating the acquisition, review and synthesis of the information needed; formulating or overseeing the formulation of draft advisory documents for consideration by the CSC; obtaining and providing clarification as requested by the CSC on any submitted draft advisory documents in a timely manner. The CSC adopted the LME Governance Framework as its working model for regional ocean governance arrangements. It will focus first on living marine resources which are the basis for livelihoods in fisheries, tourism and domestic recreation, as well as providing many other ecosystem services. Based on partnership with CLME Project with focus on transboundary living marine resources in the Wider Caribbean Region

Q: How does OECS fit into the ACS?

A: The ACS is strong as long as the OECS is a part of it. We understand the importance of the OECS' cooperation and this fundamental concern will hopefully be addressed at this meeting.

4.1.6 Role of the Caribbean Regional Fisheries Mechanism (CRFM) in governance of the Caribbean Sea (Milton Haughton)

The ecosystems and marine biological diversity of the Caribbean Sea are valuable natural assets which have been providing the people of the region with a broad range of services and can make enhanced and sustained contributions to the region's economic and social development if adequate governance and management systems are put in place. Given the geopolitical characteristics of the region with a mosaic of overlapping maritime boundaries in a semi-enclosed sea where most of the living marine resources are shared between two or more states, regional cooperation is a necessity for sustainable development.

The CRFM, established in 2002 by a treaty among the CARICOM States, is an independent, indigenous, regional fisheries body established to promote sustainable use of the living marine resources by the development, efficient management and conservation of such resources. The specific objectives as laid down in Article 4 of the Agreement establishing the Organisation are: efficient management and sustainable development of marine resources within the jurisdictions of Member States; promotion and establishment of co-operative arrangements among interested States for the efficient management of shared, straddling or highly migratory marine resources; and provision of technical advisory and consultative services to Member States.

The CRFM thus provides a governance framework for closer cooperation and effective management of the living marine resources of the Caribbean Sea. Since its establishment, the CRFM has contributed significantly to all aspects of fisheries management planning and decision-making in its Member States, including, *inter alia*: data collection, analysis and research; dissemination of information and knowledge; preparation of fisheries management plans; strengthening the capacity of national fisheries administrations and fisher folk organisations, mobilisation of resources; and coordinating the development and implementation of projects and other policy instruments for closer regional cooperation.

While there are currently 17 Caribbean States and Territories that are Members of the CRFM, any State or Territory in the Caribbean may become an Associate Member subject to approval by the Ministerial Council (Ministers Responsible for Fisheries of the Members).

Q: Addressing the understanding of the Caribbean states' reluctance to give up their sovereignty. What is the main problem being faced?

A: It is only a perceived giving up of sovereignty. Because, if they really feel that they are not happy, they can get out of the organisation. But it does involve some compromise. There is a need for a common, harmonised approach. But we think that we are making progress. The main problem is the lack of commitment and the mind set to implement the things that are to be done. Countries have not signed on to agreements. Signing on is the first step, legislation has been enacted that apply rules to the situation on the ground. This requires capacity and resources. A big challenge is to ensure implementation at the ground level. We need to review change and adapt. Governance is the key to the ACS proposal; it is a broad approach which can be used to address a number of factors.

4.1.7 Organisation of the fisheries and aquaculture sector for the Central American Isthmus (OSPESCA) (Mario Gonzáles Recinos)

The objective of OSPESCA is to promote sustainable and coordinated fisheries and aquaculture development, within the framework of the Central American integration process, defining, approving and setting up regional projects and programmes, policies and strategies regarding fishery and aquaculture. The Council of Ministers is the highest OSPESCA authority which represents the political level. The Vice Ministers Committee is the organisation's executive level. The Fisheries and Aquaculture Commission is at the scientific and technical level. The Vice Ministers follow up and evaluate the regional agreements, they are known as the “steering committee”, and are assisted by the Directors of Fisheries and Aquaculture.

There is a Regional Fisheries and Aquaculture Unit within the SICA General Secretariat (SG SICA), known as the SICA/OSPESCA Unit. It has a technical support office located in Panama. Fishery and aquaculture are directed by the Ministries of Agriculture and Livestock of Belize, El Salvador, Guatemala and Honduras; in Nicaragua and Costa Rica is the Fishing Institute, and in Panama there is an Aquatic Resources Authority. Fishery topics of a regional level are addressed following the legal framework and directives from the Central American integration process. Since July, 2005 the Central American Isthmus Fishery and Aquaculture Integration Policy was approved for a 10 years period, which constitutes the legal and technical framework that governs the work of the Organisation. The majority of the Central American countries have managed to regionally harmonise their legislation. Intersectoral collaboration is promoted and both the artisanal and industrial fishers have organised at a regional level. Artisanal fishers are part of the SICA Advisory Council. Decision making is carried out in a participatory manner through work groups, national and regional consultation workshops, technical and legal base discussions, from where a proposal emerges to be approved by the OSPESCA Steering Committee. Once approved, the proposal is presented to the Council of Ministers and deposited at the SG – SICA. This makes it a binding decision.

Q: How are the fisheries? What are the major challenges for the governance of fisheries resources? What are the conflicts in the Central American region?

A: These were noted to be complicated issues and included:

- Coastal fisheries that were challenging to manage given the significant economic benefits provided for those users,
- A tuna fishery that is new and therefore requires management,
- Increased involvement by small fishers in the aquaculture sector,
- A crab and lobster project,
- Transboundary issues for areas of lower production,
- Overfishing and climatic changes.

Q: SICA and OSPESCA seem to have achieved some of the goals in principle that CSC is trying to achieve. What types of challenges might the CSC face in achieving similar successes and results?

A: When the process started there were many agreements made, but countries were not living up to the agreements. The Ministers decided to change the process and an organisation monitors for compliance with these agreements. It was serious to be considered as a non-cooperating country. The countries who have met their agreements have been thought to be successful in moving towards integration. The countries have now agreed to harmonise in times, periods and technical criteria. However, this is not enough for example with the lobster fishery as there are fishers from outside. We need to harmonise with the rest of the Caribbean so that the lobster fishery will be protected.

Q: You underscored the work of SICA OSPESCA in the spiny lobster fishery, noting its influence on the CARICOM region's approach to the development of a harmonised regional agreement on spiny lobster.

A: There is still more work to be done and there are lessons that can be shared with CRFM.

4.1.8 The Role of the Organisation of Eastern Caribbean States (OECS) in regional ocean governance (Peter A. Murray)

This presentation outlines the mandate given to the Organisation of Eastern Caribbean States and its Secretariat in the context of ocean governance. Reference is made to the Treaty Establishing the OECS of 18 June 1981; the St. Georges Declaration of Principles for Environmental Sustainability in the OECS of April 2001, as revised in 2006; and, the Revised Treaty of Basseterre establishing the Organisation of Eastern Caribbean States Economic Union, signed at Gros Islet, Saint Lucia on 18 June 2010. Relevant articles of these instruments of agreement are cited. The objective, foci and issues pertinent to Sustainable Oceans Governance in the OECS, a framework for OECS ocean governance, together with the associated programme of work are presented.

Q: You noted that the OECS has had some success in cooperation on maritime matters and specifically in fisheries and how their legislation and policies fit together, and asked that some of the successes be shared with the meeting.

A: The OECS has achieved harmonised fisheries legislation and at least three other CARICOM countries have used this model for their own legislation. There also exists a surveillance mechanism among the countries that allows for monitoring of vessels. Standard operating

procedures (SOPs) for training were also developed for example, related to fisheries enforcement. There is also training for magistrates to take them through the many issues so that they have a better understanding for legislation and carrying out their jobs. It was further noted that political will is not about politicians, it is about public servants.

Q: How can the OECS Secretariat work with the CSC?

A: The OECS is committed and supportive of the work of the CSC. Given the fact that member countries cannot attend the meeting as individuals, the Secretariat will represent the nine countries as it collaborates with the CSC.

4.1.9 Cartagena Convention – framework for sustainable development of the Wider Caribbean (Christopher Corbin)

The Caribbean Environment Programme (CEP) is one of 18 Regional Seas Programmes and was established by UNEP in 1981 in response to a request from governments of the Wider Caribbean Region. The Mission of the CEP is to promote regional co-operation for the protection and development of the Wider Caribbean Region. The overall objective is to achieve sustainable development of marine and coastal resources in the Wider Caribbean Region through effective, integrated management that allows for economic growth and sustainable livelihoods. The development of the CEP and its Caribbean Action Plan formed the basis for the formulation of the only legally binding regional agreement for the protection and management of the Caribbean Sea, the Cartagena Convention for the Protection and Development of the Wider Caribbean Region.

Work under the Convention involves environmental assessments, coastal and marine resource management, development of environmental policy and legislation, and strengthening national and regional institutional mechanisms. These have been reflected in national and regional projects on capacity building, policy and legislative reforms, assessments and monitoring, best management practices and technologies, environmental education and awareness, and sustainable financing.

Some of the main achievements of the CEP include improved environmental baseline information, leverage of donor funding, enhanced regional collaboration, increased awareness, and strengthened partnerships with NGOs, academia, Multilateral Environmental Agreement (MEA) Secretariats and regional and international agencies.

The Cartagena Convention provides support to the implementation of sub-regional, regional and global initiatives involving the countries of the Wider Caribbean. These include the Saint Georges Declaration for OECS, Barbados SIDS POA, Johannesburg POI, Mauritius Strategy for SIDS, Caribbean Sea Commission, Millennium Development Goals and several multilateral environmental agreements.

In support of future Governance efforts, the Secretariat of the Cartagena Convention offers access to data and information, policy and technical advice through its expert committees, a decision-making framework through meetings of Contracting Parties, networking and partnerships through national and technical governmental focal points, Regional Activity Centres and partner agencies.

The Caribbean Environment Programme comprises 28 countries of the Wider Caribbean and thus forms a valuable framework for cooperation and collaboration for sustainable development of the Caribbean Sea.

Q: How can the UNEP link their experience and agenda with that of the CSC?

A: There are different levels. The complementarities with the CSC were highlighted as guided by the mandate and role of the Cartagena Convention and its three protocols on land based sources of pollution (LBS), oil spills and specially protected areas and wildlife (SPAW). I would like to say that UNEP's entire programme is therefore relevant. Furthermore I may add that there is a wide scope for data and information sharing with the CSC. We have been concerned at the political level whereby clear roles and responsibilities will require further discussion. The CSC should seek to execute some of its work through existing agencies.

Comment: It would seem that the CSC can facilitate cooperation and in particular it can be a mechanism to facilitate joint agendas.

Comment: Many of the Regional Seas areas have gone through this process. The information and lessons on the process can therefore assist our region. One must admit however that not all lessons are positive.

4.1.10 The FAO Western Central Atlantic Fishery Commission (WECAFC) (Angel Gummy)

The WECAFC was established in 1973 by Resolution 4/61 of the FAO Council as an advisory body under Article VI (1) of the FAO Constitution and has held since then thirteen sessions. The general objective of the Commission is to promote in the Western Central Atlantic Ocean the effective conservation, management and development of the living marine resources as established in the FAO Code of Conduct for Responsible Fisheries, and to address common problems of fisheries management and development faced by its members. WECAFC membership is open to coastal states whose territories are situated wholly or partly within the area of the Commission (all of them are members) or states whose vessels engage in fishing in the area of competence of the Commission that notify in writing to the Director-General of the FAO of their desire to be considered as members of the Commission.

WECAFC functions, which clearly relate to ocean governance in its area of competence, are the following:

- To contribute to improved governance through institutional arrangements that encourage cooperation amongst members;
- To assist its members in implementing relevant international fisheries instruments, in particular the CCRF and its related International Plans of Action;
- To promote, coordinate and, as appropriate, undertake the collection, exchange and dissemination of statistical, biological, environmental and socio-economic data and other marine fishery information as well as its analysis or study;
- To promote, coordinate and, as appropriate, strengthen the development of institutional capacity and human resources, particularly through education, training and extension activities in the areas of competence of the Commission;

- To promote and facilitate harmonizing of relevant national laws and regulations, and compatibility of conservation and management measures;
- To assist its members in and facilitate, as appropriate and upon their request, the conservation, management and development of transboundary and straddling stocks under their respective national jurisdictions;
- To seek funds and other resources to ensure the long-term operations of the Commission and establish, as appropriate, a trust fund for voluntary contributions to this end;
- To serve as a conduit of independent funding to its members for initiatives related to conservation, management and development of the living resources in the area of competence of the Commission.

The structure of WECAFC is composed by the Commission which is its principal body, the Scientific Advisory Group, and several Working Groups (Working Group on Shrimp and Groundfish Fisheries in the Brazil-Guianas Shelf Large Marine Ecosystem; Working Groups on Caribbean Spiny Lobster; Queen Conch and Flying Fish respectively and the Working Group on Anchored Fish Attracting Devices in the Lesser Antilles). The Secretariat is provided by FAO and it is based in the FAO Subregional Office for the Caribbean (SLC).

Expert Consultation on Operationalisation of the Caribbean Sea Commission

Building a science-policy interface for ocean governance in the Wider Caribbean



Association of Caribbean States - Caribbean Sea Commission

University of the West Indies, Cave Hill Campus, Barbados, July 7-9, 2010



4.2 Open Microphone

One of the problems in the Caribbean is that there are a lot of initiatives but do we necessarily communicate with one another as it relates to the same spatial extent and time periods? There are lots of organisations that often do not communicate but have overlapping objectives, aims and problems with access to data. The data are difficult to find and often have to be recreated and there is duplication of effort. These are governance issues especially in academia. There is also a lack of cooperative, interactive governance in the Caribbean. The International Community-University Research Alliance (ICURA) Project funded by IDRC and the Social Sciences and Humanities Research Council (SSHRC) is focused on two geographic spaces –the Caribbean and Canada. SALISES is also collaborating on the Project. It will look at coastal communities dealing with climate change in Trinidad, Belize, Guyana and St. Vincent and the Grenadines. Key activities will be the collection and processing of data to support adaptation and mitigation strategies in terms of social and economic impacts of climate change. Indicators will be developed by the social scientists which will be based on spatial modeling. (M. Sutherland)

GCFI is a non-profit organisation since 1948 and meets yearly on a variety of subjects. The organisation remains neutral in objectives. It does not take a particular stance but rather, it gives the opportunity to bring people together in a forum that does not have an agenda. One initiative that complements what is happening at the regional level with fishers is the Fisheries for Fishers initiative. This initiative has a number of different activities including a small grants programme

supported by UNEP and in some cases the SPAW programme that provides funds to help develop capacity for fishers. One such grant was to contribute to the establishment of the Caribbean Regional Fisher Folk Network. The Gladding Memorial Award is another activity that recognises fishers in the region that have a long-term commitment to sustainability of marine resources. It is awarded to a fisher each year who serves as a model of success or as an ambassador for their island. The aim in this award is to 'scale up' this success from the community level to the regional level and empower fishers who have made efforts to conserve resources. There is also a partnership called Caribbean Marine Protected Area Managers Networking Forum (CaMPAM) that is funded through the SPAW programme and the National Oceanic and Atmospheric Administration (NOAA). CaMPAM involves developing protected area capacity in terms of training for local managers and there is a database associated with it. GCFI was described as a partnership at the NGO level. (R. Glazer)

The Black Sea Commission was project-based rather than initiated under the Regional Seas Programme. The Black Sea Convention is the Bucharest Convention. For about seven years the UNDP had a project implementing unit working with the Commission. They worked in the same building and fought against each other on how best to do the environmental work. The Black Sea Commission is trying to know about all projects in the areas, no matter who is doing it. This is to ensure coordination and ensure that there are no overlaps and that all projects are working towards the goals of the Black Sea Commission. There is need for cooperation although it is simpler in the Black Sea where there is only one organisation dealing with all the environmental issues. One positive benefit for having one organisation was that all personnel were located in one building while the one negative identified was that they are not able to manage all the work with the small number of persons. The WCR may actually be more comparable to the Mediterranean in terms of the large number of organisations in that region. There is an organisation for everything but lack of coordination among them. (V. Velikova)

The Caribbean Natural Resources Institute (CANARI) is a regional non-profit organisation undertaking technical, research and capacity building activities. The mission is to facilitate and promote participatory natural resource management both in coastal marine and terrestrial areas. There is collaboration through projects with organisations such as CERMES. Our work is relevant to the governance agenda in that we are able to bring different countries together at the regional level in an informal forum. The institute works at the local level, facilitating both horizontal and vertical linkages. CANARI is interested in the action learning approach which is related to adaptive management approach that was highlighted in one of the presentations. (N. Leotaud)

4.3 Discussion

The Commission is not starting from scratch because there is a lot of information and many organisations that can be a relevant part of the Commission. There have been expressions of support from these organisations like OSPESCA to provide information and experience that can be used for this Commission. Some of the structures that we have at different levels from different organisations and perspectives can be building blocks for the Commission. We must be aware that for this kind of work, political will - which can mobilise political interest - is a requirement to make it effective and efficient and to produce change. (N. Windevoxhel)

The CSC has a number of building blocks based on the number of organisations involved that can be used to generate ideas on how the Commission can go to the next stage. Data collection

and sharing were identified as feasible ways for the CFMC to work with the Commission. The various CFMC meetings with representatives for 30 countries were also highlighted as opportunities to contribute to information sharing. Opportunities for including CSC related information in the organisation's meeting agenda would also be feasible. The exchange of information is a key avenue for supporting the Commission's work. The budget is every five years and the organisation can contribute to CSC events. If the CSC thinks that there is something specific that the CFMC can contribute to, they can let CFMC know. (M. Rolon)

This is a clear example of what they are experiencing in the Gulf of Honduras, where there is the need for technical and scientific information to aid decision making at the political level. There is also a need to establish a high body to support projects, leading to policies that are harmonised. We need to take advantage of opportunities, like we see in Central America that takes decisions at the highest level. We need to look at all these examples to establish procedures (E. Muñoz)

Some of the issues being dealt with in the Caribbean Sea are similar to Australia. In relation to coral reefs management, marine protection and vulnerable ecosystems area management; Australia has a lot of experience in this area and can share expertise with the regional organisations in the future. Australia has started to look into a coral reef initiative dealing from a different perspective from that of the Law of the Sea to a shift in looking at corals as supporting livelihoods of SIDS. It will focus on issues such as food security, sustainable development and biodiversity. Sovereign rights and political will were important points raised during the presentations. It is recognised that the countries would not want give up sovereign rights and this is not necessary for working together. There are examples of how difficult areas have been managed around sovereign rights issues. It will however require a lot of attention and hard work. (E. Luck)

We (members of the conference) are a group that has watched the Caribbean and generally subscribe to the opinion that there is a decline in the status of living marine resources in the Wider Caribbean Region. We are therefore preaching to the choir. The 800lb gorilla is not in the room. How can we bring tourism into this mix? (J. Ogden)

TNC has a Caribbean Challenge which is a regional programme working with eight governments in the region towards increasing Marine Protected Areas, sustainable financing and projects that deal with ecosystem-based adaptation within marine environments. We are working with the UNEP-CEP to develop the appropriate governance arrangements. This forum is therefore particularly useful. Noting the challenges related to the complexity of the region, there may levels of diplomacy needed as countries have different views and opportunities. Countries need to express their sovereignty to ensure that they are not being disadvantaged in a setting where the goals expressed may not match entirely those at the national level. Note also that the TNC possesses GIS capacity, science and data that they are willing to share in the effort at collaboration. (D. Blake)

The inventory of resources of the Caribbean Sea also includes non-living marine resources. While we tacitly refer to these *en passant*, we need to explicitly remind ourselves of these resources such as beaches with their associated sediment transport management and issues related to mineral resources considering also presently non-exploited resources. Any governance arrangements should consider the use of presently non-exploited resources and feasible plans for their use. Reference was made to resources such as manganese and iron nodules. Although they may not be currently economically exploitable, they will become even more important as land-based sources become depleted. (L. Nurse)

We set out to develop the idea of the region as being one in which a multilevel framework was required for governance and some of the characteristics that were going to be necessary for such a structure to be successful. There are many organisations existing with excellent programmes ongoing that can fill the space at the regional level in that framework. There is still however a need for a higher level policy-oriented integrating organisation and that is the role that we see the CSC fulfilling. (R. Mahon)

5 TRANSLATING INFORMATION INTO POLICY ADVICE

The second session of the Expert Consultation dealt with the topic ‘Translating Information for Policy Advice’. There were four presentations. Abstracts of the presentations, in order of appearance along with participants’ questions and answers as they relate to the presentation are provided below followed by the open microphone and discussion sessions. This session was chaired by Dr. Patrick McConney.

5.1 Presentations

5.1.1 The proposed science policy interface process for the Caribbean Sea Commission (Robin Mahon)

With regard to a science policy interface for ocean governance in the Wider Caribbean, the perceived need is for: a regular reporting and advisory process for the regional status of oceans and ocean governance in the Wider Caribbean Region; a mechanism that can serve to alert policy makers about emerging, regional issues that require policy intervention; and a mechanism that regional policy makers can use to obtain advice on matters of concern to them.

In November 2009 the UNGA approved the development of the, ‘Regular process for global reporting and assessment of the state of the marine environment, including socio-economic aspects’. As currently proposed, the overall mechanism would: make best use of the full range of information and expertise available in the region by developing an effective network; allow for communication and information flows in two directions (1) upwards from information sources through synthesis mechanism to policy makers and (2) downwards - the reverse direction - for feedback and queries; and be a regular and transparent process. In technical terms establishing this means that ACS/CSC must have access to timely and comprehensive information and analyses on matters of importance. This should be on a regular cycle, but also when gaps are identified, there can be activities targeted to filling those gaps. However, the CSC does not have resources to carry out the information gathering and analysis that would be required, so must develop relationships with organisations and institutions already doing this in the region and promote their development to fill gaps. The next steps are: (1) develop a clear plan for how to proceed over the next four to five years to engage partners and allow funders to see where they can contribute; and (2) communicate this intention to the UNGA. The key elements of the plan are: the funding required, coordination of the CSC, and development of an information and expertise sharing network. It should include the resources to take the Commission and its Subcommissions through the review process by addressing some key science-policy questions. In so doing it should explicitly engage policy makers to determine their needs and interests and explore use of indicators at the science policy interface.

Q: Are we trying to ensure that when policy is enacted it is done with the knowledge of science, or we are trying to direct or influence science policy? There have been examples of decisions made going against scientific advice, but the decisions were made in light of other reasons or for other reasons.

A: We want to provide best advice with information available and to give options. We do not want to provide data. We are often unable to provide serious advice that includes economic implications of the decisions; the role of the CSC would be to provide advice to the best of our ability. Lobbying will probably not be part of a well-functioned advisory committee. We would also want to be able to track whether advice given is taken or not, and the consequences of advice not taken.

Q: Not all models are equal; a lot depends on the conditions. The experiences of Central America because of the characteristics of the countries will be different to that of the Caribbean. We need to have active participation between several sectors in the decision-making process, incorporate fishers and business to identify knowledge, and influence political decisions which will enrich the process. We also need to bring the political aspects together, look at other sectors that are being productive, and play a role in which the science and the political can work together.

A: I think you are asking how we would integrate different organisations within the region and their approaches to this problem. It would not be the job of the CSC to provide fishermen, for example, with advice. An organisation of this kind has to observe the subsidiarity principle. We should go through some of the other organisations that already exist to get to the fishers (CRFM or OSPESCA). An organisation of this kind should not be trying to create direct links with fishers, wherever another organisation can be used, or gone through, we should be doing that. Effort should not be duplicated

Comment: EU countries rely heavily on criteria indicators. From their experiences, a maximum of 100 indicators are manageable (they currently use about 200 and many are country specific). The EU experience may be helpful if the CSC is developing indicators.

5.1.2 Ocean governance, science policy and sustainable development: challenges for the wider Caribbean region (Franklin MacDonald)

The land, coastal and inshore marine resources of the Caribbean have long been recognised and appreciated in Caribbean sustainability initiatives. In contrast, the vital role of (and our dependence upon) the Caribbean Sea has not been as fully appreciated. Ocean governance and management therefore may not be accorded the priority it deserves in national, regional and sectoral strategies and policy initiatives (including science policy!). The Wider Caribbean region is characterised by great diversity in scale – including territorial sizes ranging from small islands to continental states - and many other characteristics. There are however uneven but expanding arrangements for technical cooperation related to ocean science and governance including a few integrated approaches to transboundary issues (e.g. Gulf of Honduras).

Science policy is an area of public policy usually concerned with supporting, facilitation and funding of science and with the regulation of technology produced by scientific research. Science policy is the intersection between scientific research and public policy. While some Caribbean states have evolved structured and effective strategic and policy making mechanisms, in many of the smaller Caribbean jurisdictions the public policy framework is still in the process of

evolution and the science and technology capacities are immature or underdeveloped. Policy cohesion is still a challenge for many jurisdictions of the region. Coordinated effective public policy based on science and cohesive national science policy frameworks and action plans are the exception rather than the rule.

As a consequence, both ocean policy and science policy initiatives may lack clear, coherent, consistent regional support, champions and facilitating actions. In more developed states it is recognised that “good science is imperative for good government”. The UK for example has a Chief Scientific Adviser (CSA) responsible for the quality of scientific advice within government and for advising on government’s science and technology (S&T) policy as well as on specific S&T issues. Such a mechanism seeks to ensure co-ordination of science policy issues and address reactive issues (e.g. lessons from past experiences); as well as proactive and strategic issues (e.g. trends and emerging challenges). In addition this kind of focal point promotes the integration of scientific advice into policy making; and promotes foresighting.

Several post -Rio diagnostics have pointed out global, and regional ocean governance gaps . These diagnostics include work related to the global and regional (WSSD, MDG, CSD, GIWA, GEO, GPA, BPOA review and Mauritius Strategy) approaches stimulated by the Rio process. The diagnostic work suggests that there are opportunities for convergent sustainability-based strategies (e.g. NSSD; IWCAM; fisheries management etc). Many of the diagnostic reviews also confirm significant (they may even be expanding?) gaps between our marine and ocean science knowledge base and the policy, programmatic and project responses at the regional, sub regional, national and sectoral levels. Some larger states with navies, maritime tradition, S&T research capacity do have well articulated integrated approaches. There are also regional and sub-regional S&T based initiatives building on shared sectoral issues (e.g. fisheries, environmental management). These are supported to some extent by university based knowledge networks (e.g. CARICOMP) and technical partnerships.

Partnerships are vital for ocean governance as they provide integrated structured frameworks for strategies, policies and programmes as well as projects, activities (and events). Some suggested actions at the national level are: establish functioning national focal points, commissions with influence, authority, capacity, clear roles, responsibilities and relationships including sectoral stakeholders’ interests. There is the need for an enhanced regional initiative to complement and support national and sub-regional efforts. This should harness regional research and university-based entities; the regional hubs of the UN entities (UNEP, FAO, IMO, IAEA, UNESCO etc.); and significant non regional partners (The Nature Conservancy, IUCN, etc). Making ocean science a seamless component of national science policy could be a regional priority supported by the UN (UNEP, FAO, IMO, etc). The process must also more meaningfully engage traditional bilateral partners (EU, Canada, Australia) in new innovative modalities. Ultimately, Caribbean sustainable development and security depends heavily on the state of well being of the coastal, marine, and ocean resources. At all levels policy efforts need strengthening and significant capacity building. This is an area that is apparently not popular with traditional technical assistance. Emerging tools like marine spatial planning are available but still underutilised in the region.

Comment by speaker on oil in the Gulf: There will certainly be challenges faced by all the governments of countries touching the sea. And once it moves around in the future, we may have to think about how this affects the Caribbean.

Q: How do you see science guiding policy and ensure the quality of scientific data. We have a lot of data, but it is not being packaged.

A: We need to improve the data collation, and packaging. A lot of our scientific work is being written for each other, rather than for the decision makers. We need to follow the climate change scientists, get the word out there and to the decision makers. How much of the science has already influenced policy making? It is probably a very small percentage. There is room for improvement. We need to engage people to convert their hard data into something that can influence policy.

Q: One of the problems with democracy and political support, and science advice for policy, is that the person in power changes and maybe the first person in power may understand and the next may not. One political body may take the advice more than the next, and scientific advice is not law. How do we address this?

A: This is something that needs to be discussed within governance. There is a culture of strong secrecy in the Caribbean. We need to get out of this culture, we need transparency. We need to look at the public and give them fair access to the information. Civil society and professional organisations can help to get some of the information out, but information flow needs to be far more fluid. The region is largely made of democracies, but there are many examples where not everyone is as involved as they should be. We need to bring in the private sector in a meaningful way. We need to also apply that to ourselves at the regional level. There is often a lack of coordination at the national and regional level. We need to be aware of the state of knowledge of the day and keep current. There is lots of competition for turf at the regional level.

5.1.3 The role of HELCOM in protecting the marine environment of the Baltic Sea (Anders Alm)

The Baltic Sea is a young, shallow, brackish and semi enclosed regional sea with low water exchange, low temperature and relatively low, but unique biodiversity. The total area is 415,000 kilometers with a catchment area four times as big with about 85 million inhabitants. Because of its characteristics, the Baltic Sea is very sensitive to human impact and the main environmental problems are related to land based pollution, in particular eutrophication, shipping activities, habitat destruction and unsustainable fishing activities. The Baltic Sea is surrounded by nine riparian countries which in 1974 signed the Convention on the Protection of the Marine Environment of the Baltic Sea and established the HELCOM Commission as the governing body of the Convention which has its Secretariat in Helsinki, Finland. Today the Convention has 10 contracting parties (nine EU member states, Russia and the EU). The HELCOM Commission acts as environmental policy maker, focal point and coordinates regional monitoring and produces regularly scientifically sound assessment reports. HELCOM occasionally conducts high level ministerial meetings, annual Commission meetings, biannual Heads of Delegation meetings and numerous technical meetings in five major working groups and several project groups.

The unique environmental problems in the Baltic Sea require special regional considerations. Apart from the work to implement the Helsinki Convention, HELCOM has produced over 200 recommendations, conducted several ministerial meetings, acts to implement the regional components of international agreements, provides input to regional and global fora, implements joint projects and in 2007 developed the Baltic Sea Action Plan. The Baltic Sea Action Plan has

become a cornerstone in several other regional processes such as the EU Strategy for the Baltic Sea Region, and the meeting of Heads of Countries and Heads of Governments during the Baltic Sea Action Summit.

The Baltic Sea Action Plan includes over 150 actions to address the main environmental problems. Countries have developed their National Implementation Plans which describe how each country will implement relevant actions in the Plan. The national Implementation Plans were presented at a ministerial meeting in May 2010 and their effectiveness will be reviewed at another ministerial meeting in 2013.

Through well established regional cooperation, high public awareness, good scientific knowledge, harmonised environmental legislation at the regional level, and increasing political will and funding commitment, the HELCOM has developed a model on a well functioning regional cooperation network. HELCOM is of course willing to share experiences and knowledge with other regions.

5.1.4 Science-Policy Interface: The Black Sea Commission System (Violeta Velikova, Ahmet Kideys)

Since the beginning of the 1990s, the six Black Sea countries have cooperated at the regional level in promoting sustainable use of Black Sea resources while protecting its valuable ecosystem. The 1992 Bucharest Convention (Convention on the Protection of the Black Sea Against Pollution) and its Four Protocols, the 1993 Odessa Declaration and the 1996 Black Sea Strategic Action Plan for the Protection of the Black Sea have provided the impetus and framework for this regional co-operation.

Established in implementation of the Bucharest Convention, the Commission on the Protection of the Black Sea Against Pollution (the Black Sea Commission (BSC), sometimes also referred to as the Istanbul Commission) is the regional Focal Point in environmental protection, dealing with monitoring activities, policy and legislation development, state of environment assessments, recommendations for decision-making, programs of measures, harmonisation in different aspects (standards, methodologies, policies), emergency situations, capacity building, etc. The Permanent Secretariat was established in 2000 to assist the Black Sea Commission on implementation of provisions of the Convention on the Protection of the Black Sea against Pollution (Bucharest Convention) and the Black Sea Strategic Action Plan (BS SAP - the main regional policy document in Black Sea environment protection). The BSC PS is located in Istanbul, Turkey (web site: <http://www.blacksea-commission.org>)

The BSC PS coordinates activities of the Advisory Groups to the Black Sea Commission, which are its main source of expertise, data/information, support and communication between policy makers and scientists. The Advisory Groups are an integral part of the institutional structure of the Commission and function as specialised subsidiary bodies. In many ways, they are to serve not only as specialised technical bodies but also as the ‘eyes and ears’ of the Commission so as to promote more harmonious implementation of policy, based on a scientific advice, and to consequently advance the objectives of the Bucharest Convention and the BS SAP.

There are seven advisory groups (AG): Pollution Monitoring and Assessment; Control of Pollution from Land Based Sources; Conservation of Biological Diversity; Environmental Aspects of the Management of Fisheries and other Marine Living Resources; Environmental

Safety Aspects of Shipping; Information and Data Exchange; and Development of Common Methodologies for Integrated Coastal Zone Management.

The BSC PS works also with expert pools (marine biology, chemistry, physics, jurisdiction and others), comprising the best scientists and experts in the region, who participate together with the AGs in elaboration of main BSC reports and policy/legal documents development. The BSC PS serves as a regional data center for environmental and socio-economic data and information collected by the AGs and within the Black Sea Integrated Monitoring and Assessment Programme (BSIMAP) with the support of the scientific community in the region. BSIMAP has been implemented since 2001. It is addressed to the main transboundary environmental problems in the Black Sea region: eutrophication, water pollution and water quality, biodiversity change and decline, habitat destruction.

The BSC PS produces different annual and five-yearly reports on transboundary diagnostic analyses, state of the Black Sea, implementation of the Strategic Action Plan, and others (e.g. on Marine Litter). For the period 2000-2006/7 the five-yearly reports were published in 2008/9 and they served as the basis for the revision of the BS SAP which was undertaken in 2006-2008 to incorporate the most up-to-date notions and principles widely accepted and employed in the field of marine environment protection. Three world-wide new environmental management approaches became the core of the revised BS SAP: Integrated Coastal Zone Management (ICZM), The Ecosystem Approach, and Integrated River Basin Management (IRBM).

New paradigms in environmental protection were taken into consideration in the revised BS SAP to incorporate ‘market-based’ instruments — principally pollution taxes and tradable permits — rather than so-called ‘command-and-control’ instruments, and to design standards, which require the use of clean technologies and phasing-out high waste and waste-generating technologies, including the use of BAT and BEP.

Knowing the priority transboundary environmental problems (drivers, pressures, ecosystem state, impacts, needed response); the BSC formulated the following Black Sea ecosystem quality objectives in the revised BS SAP:

- Preserve commercial marine living resources through sustainable use of commercial fish stocks and other marine living resources, restoring/rehabilitating stocks of commercial marine living resources;
- Conservation of Black Sea biodiversity and habitats through reducing the risk of extinction of threatened species, conserving coastal and marine habitats and landscapes and, reducing and managing human mediated species introductions;
- Reduce eutrophication through reducing nutrients originating from land based sources, including atmospheric emissions;
- Ensure good water quality for human health, recreational use and aquatic biota through reducing pollutants originating from land based sources, including atmospheric emissions, reducing pollutants originating from shipping activities and offshore installations.

The revised BS SAP outlines the logical chain of ‘monitoring - scientific advice -programs of measures – indicators of success - monitoring’ with short-, mid- and long-term targets to tackle the sources of possible degradation – municipal, industrial and riverine discharges, overfishing, habitat destruction, ballast waters, illegal discharges from ships and other ship-related threats,

climate change, lack of integrated coastal zone management and spatial planning, and others. The intention is to reach ‘Good environmental status’ of the whole Black Sea and to sustain it. And a key issue here is the thorough understanding and proper valuation of ecosystem goods and services to avoid managing only those ecosystem functions which directly affect human welfare. The related socio-economy studies are also becoming an integral part of the work of the BSC.

Presently, as a result of the efforts of the countries’ signatories to the Convention on the Protection of the Black Sea Against Pollution, numerous coastal and marine protected areas have been designated and new protected areas are assigned continuously, hot spots are addressed, environmental safety aspects of shipping are better ensured, the populations of endangered species are given time to recover while applying different measures of protection, sensitive areas are identified to proceed thoughtfully to spatial planning, dumping is prohibited, in fishery bans, fishing-free zones, prohibited gears and other protection measures are in place (though there is no legally binding document in fisheries yet). Decreasing trends in emissions and atmospheric deposition of pollutants were observed and the amount of insufficiently treated or untreated waters decreased during the last years.

The Black Sea States are now in a period of time when they are ‘acting nationally’ and thinking ‘regionally’ as they embrace a adaptive management, which is impossible without scientific advice. Committing themselves to fulfilling the objectives and carrying out the measures outlined in the revised BS SAP (adopted in Sofia, 2009), the states showed their political will to provide good, scientifically based governance; governance that will lead to preserving the Black Sea ecosystem as a valuable natural endowment of the region, whilst ensuring the protection of its marine and coastal living resources as a condition for sustainable development of the Black Sea coastal states, well-being, health and security of their populations.

Q: Regarding the Baltic Sea there is lesson to be learned: we only believe that a decision is valid if the ministers make it, but in the Baltic they only meet every three years. I am looking for clarification on whether it is that the officials make the decisions, maybe this is what we can learn from the region.

A: In HELCOM decisions are made by consensus; there is no need to go to the ministers. Should there not be any consensus then we go to the ministers. In the Black Sea it depends on the decision to be made. Some decisions like signed protocols need the minister, others do not. Regarding each country’s wish list, it is not the Black Sea Commission job to cut the list.

Q: It looks like both Commissions were set up to respond to government – similar to Caribbean UNDP programs. How valuable has the regional framework been in helping with that science-policy debate and getting commitment from the government? How helpful has the Bucharest framework been to help to get the government to do something at the national level?

A: HELCOM is the only commission dealing with marine environmental issues. We receive a lot of political attention and high political priority. It is in the news every day during the summer.

A: In the Black Sea, protocols specifically mention the need to have scientific input, and revisions.

Comment from ACS: I foresee stronger cooperation for this region and we can raise this issue to a global level. Eventually we need to work with commissions around the world. We need to deepen relationships with both Baltic and Black Sea Commissions to help share knowledge and information. We need permission to give more time to these commissions to help share information and expand on these presentations.

A: All reports, newsletters, etc. are on our website and the Baltic Sea Commission (BSC) is willing to share as there is no need to reinvent. That is in fact the first thing they did when the Baltic Commission started. It is always helpful to share information with regions with similar experiences.

6 THE INFORMATION SYSTEM TO SUPPORT THE SCIENCE POLICY INTERFACE

The final session of the Expert Consultation Meeting presentations was entitled ‘The Information System to Support the Science – Policy Interface’. This session had the largest number of presenters with a total of 15 speakers. It was chaired by Ms. Deirdre Shurland. Abstracts of the presentations, in order of appearance along with participants’ questions and answers as they relate to the presentations are provided below.

6.1 Presentations

6.1.1 The proposed Caribbean Sea Commission information system (Robin Mahon)

A key issue for the data, information and expertise platform is that a lot of technical work has been done but has had little impact on governance. While this is partly due to the lack of a good science policy interface from an institutional point of view, it is also due to the fact that much of the information is not readily accessible. There have been many local efforts at data compilation and management which are uncoordinated and disconnected at the regional level leading to duplication of effort. The proposed system will adopt a network approach that will: be distributed versus centralised, allow different levels of buy-in by partners, accept different levels of data aggregation, promote access to historical data and information, allow access to and networking of expertise to allow for integration that true ecosystem-based management (EBM) will require and be open for everyone. An example of how it might be used for integration information from around the region is the case of economic valuation of goods and services of marine ecosystems. Many organisations are interested in economic valuation of ecosystem goods and services: fisheries (small-scale, commercial, recreational), tourism (reefs, beaches, MPAs), seascapes, biodiversity, local recreation, etc.), and there is a diversity of studies from around the region. The platform could be used to pull those together, as well as the experts who have been involved in them, to develop a regional picture of value.

6.1.2 COINATLANTIC as a Model for a COINCARIBBEAN (Paul R. Boudreau, Michael J.A. Butler and Claudette LeBlanc)

Integrated coastal and ocean management is complex and a difficult task requiring information from the land, estuaries, coast and oceans. As a result, information is required from a wide range of organisations including national, international, academia, community groups, etc. No one agency can, or should attempt to, manage all of the information. COINAtlantic – the Coastal and Ocean Information Network for Atlantic Canada is an initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC). The goal is to develop, implement and sustain a network of data providers and users that will support secure access to data and information, for decision-making by managers and users of coastal and ocean space and resources.

The ACZISC experience, with over 20 members and about two decades of work, shows that the success of an information network is the willingness and ability of people to provide access to their information. In Atlantic Canada, the work of the various agencies has resulted in a large number of on-line datasets but, in most instances, the information is published on stand-alone websites using isolated mapping engines to display and work with the information. This makes it impossible for the non-technical user to find, overlay and compare information with relevant data from other sources.

To address this challenge, COINAtlantic has been working to establish a network of people, information and technology. Through this initiative there is an increased awareness and capacity to publish geospatial information on the internet with improved discovery metadata. Using existing open standards, such as Web Mapping Services (WMS) and ISO metadata standards, and a newly developed on-line Google-based search tool, users are able to find information wherever it resides and can display it on any internet browser.

Although there are many differences between Atlantic Canada and the wider Caribbean, it must be recognised that they share many similarities in the challenges of information management. There are numerous nations, agencies, NGOs, etc. that manage relevant information. For many reasons each entity must be supported in properly managing their information such that others can have appropriate access.

Based on shared challenges and a common interest to facilitate improved management, COINAtlantic provides an excellent example for collaboration with Caribbean states in developing a COINCaribbean information network system for implementation within a Caribbean Seas Commission. For more information consult <http://COINAtlantic.ca>.

Q: What does it cost per year to maintain a system like this?

A: Over a two year period US\$1 million was spent on this project to develop the system. However, the online search tool is free and ongoing maintenance is carried out by a very small team with salary being the main budget item.

6.1.3 The Caribbean Marine Atlas (Ramon Roach)

The Caribbean Marine Atlas is a project of IOCARIBE and seeks to bring oceanographic information on the region together in an accessible format.

Q: Is the sharing of the information a formal or informal arrangement? What is the sustainability of this project is there a plan after funding is finished?

A: The sharing of information is by informal arrangements mostly. All data are from the national organisation and its mandate is to provide the data so there are no trust issues. So there is no problem with access rights, or getting the information. It is intended that it gets to a national level and becomes a part of institutional operations. If all goes as planned then funding will not be an issue.

6.1.4 The Association of Marine Laboratories of the Caribbean (AMLC): A source of scientific data, information, and resources for the Greater Caribbean (Paul W. Sammarco)

The Association of Marine Laboratories of the Caribbean (AMLC; founded 1957) represents a forum for information exchange and collaboration between 33 labs in 20 countries and approximately 300 individual members. Biennial conferences rotate between labs and feature numerous oral and poster presentations. Its proceedings (peer-reviewed) are published in the *Revista de Biología Tropical*. Its mission is to - 1) advance common interest in Caribbean marine science, 2) initiate/assist cooperative research/education programs; 3) facilitate scientific/technical information exchange; 4) foster relations among members; 5) publish conference proceeding; and 6) cooperate with governments/other organisations. Institutional members: Barbados – Bellairs Research Institute; Belize – Glover’s Research Station; Bermuda – Bermuda Institute. Ocean Sciences, Bermuda Department of Conservation Services; Colombia – Instituto de Investigaciones de Marinas y Costeras (INVEMAR); Dominica – Institute of Tropical Marine Ecology (ITME); Costa Rica – Centro de Investigación en Ciencias del Mar y Limnología (CIMAR); Dominican Republic – Centro de Investigación de Biología Marina; Grenada – Marine Biology Programme, St. George University; Jamaica – Discovery Bay Marine Lab, Port Royal Lab.; Mexico - Centro de Investigaciones y de Estudios Avanzados de IPN - Unidad Merida; Netherlands Antilles – The CARMABI Foundation, Curacao Sea Aquarium, CIEE Research Station; Panama – Smithsonian Tropical Research Institute (STRI); San Salvador, Bahamas – Gerace Research Center; Trinidad and Tobago – Institute of Marine Affairs; Turks and Caicos Islands – Center for Marine Resource Studies, School for Field Studies; USA – Keys Marine Lab - Florida Institute of Oceanography; Department of Marine Sciences - Florida International University, Southeastern Environmental Research Center FIU; Louisiana Universities Marine Consortium (LUMCON); Mote Marine Lab; National Coral Reef Institute - NOVA Southeastern University; The Living Ocean Foundation, Rosenstiel School of Marine and Atmospheric Science – University of Miami; Perry Institute of Marine Science (Bahamas); Department of Marine Sciences – Universidad de Puerto Rico Mayaguez; Maclean Marine Science Center – University of Virgin Islands USVI, Virgin Islands Environmental Resource Station, USVI; and Venezuela – Instituto Oceanografico Univeriste de Oriente. Many are associated with larger institutions and additional researchers. Lab facilities are available for use; their personnel are available for scientific advice. The AMLC has participated in coordinated Caribbean-wide research programs, e.g., CARICOMP and is well-suited to interact with the CSC in constructing a science-based approach to regional oceanic governance in the Caribbean.

Q: I have been interested in hearing what you are doing. The map looks at the infrastructure in Central America. Is there a framework for the methodology of common research throughout the Caribbean?

A: We look forward to working and sharing information. At this point, other than the focused CARICOMP, the programme is very loose. Databases are not coordinated and data are housed within people and organisations. Information needs to be shared. There is still much room to grow. CSC will need to coordinate so that the information is accessible to everyone. Presently the AMLC is just at its entry point into this system. We look forward to sharing information both ways with the Central American system.

Q: How are U.S. federal or state government institutions related to this information and what is the impact on state and federal policy?

A: The federal government is involved on the board, both the National Oceanic and Atmospheric Administration (NOAA) and United States Geological Survey (USGS) are represented. We are currently opening the door to federal government to be involved. Only in the last few years has government join the board. Aligned policies are the outcome of the collaboration.

Q: How can we overcome political roadblocks to involve Cuba in the CSC. The oil spill eventually will affect us. How can we get information through your network on the oil spills as we believe it can affect us? This is a dramatic situation. I encourage you to link to the CSC.

A: Cuba was an early member in AMLC. There were three members but they have been inactive for the past 10 years. I am not sure about the situation with the labs there. Probably in the next six months honorary lifetime membership will be granted when they re-join as we have much respect for these labs.

Comment by presenter: When catastrophe hits, if a proper emergency response programme is not in place then chaos will result. In the gulf oil spill situation there was no place to go for information or to seek scientific advice. I wish that the AMLC was contacted in this response, because they could find people with experience and knowledge in the specific areas. There was insecurity, paranoia and chaos and the walls went up around BP, Coast guard and state government because so many people tried to contact the agencies.

6.1.5 The Intergovernmental Oceanographic Commission of UNESCO and its role in marine science data and information in the Caribbean and adjacent regions (Lorna Inniss and Cesar Toro)

The Intergovernmental Oceanographic Commission of UNESCO is a specialised mechanism of the United Nations to coordinate global scientific ocean research and ocean services. The regional Sub-commission for the Caribbean and adjacent regions was established in 1982, to promote and coordinate regional ocean and coastal sciences. The IOC's programming generates significant data and information on the region's oceans and coasts through a number of programmes, including the Caribbean Large Marine Ecosystem, Tsunamis and Coastal Hazards Warning System, and Harmful Algal Blooms. However, data and information from these and other programmes are shared through the Ocean Data and Information Network for the Caribbean and South America (ODINCARSA). This network is built on the IOC Data Policy, which calls for the "free and open exchange of marine data and information" for the benefit of decision making.

The Sub-commission works with, and understands the division of labor in science among Governments, universities and industry, where underlying goals and timelines are different in each case. Governments require science for strategies within a one to five year window, whereas universities are more long-term in focus, building science careers. Thus, their timeline is well in excess of five years. Science for use in industry is very short-term, requiring results within a year to achieve economic returns. In essence, industry science is much more market driven, whereas universities are more science driven.

Against this background, the Sub-commission recognises the need for a reliable flow of information between scientists and decision makers, so that regional science programmes are

based on identified needs of leaders, and a binding agreement would ensure that leaders utilise the results of science to make decisions that lead to sustainable use of the resources of the Caribbean Sea.

Q: Have any studies been done to determine appropriate information for the region?

A: There are a series of data centres under the International Oceanographic Data and Information Exchange (IODE) programme which feed up one to the other. There is open access and results are sent to countries. There is work across levels of partnership. The reason why we are not moving is that there is a disconnection between scientist and policy makers. If the problems are solved at a national level then the problem can be solved at the regional level.

Q: Based on the IOC and your experience, what role are the policy makers willing to play in influencing the policy?

A: Policy makers are as interested in informing scientific research as they are trained to be. For example, at the global level, the IOC has round table sessions in which the policy makers are trained/sensitised. There is a failing of capacity building on our part as scientists. I do not know if the region is ready to deal with the amount of money coming down in terms of climate change. The policy makers do not know what to do with this amount of money; they think it is the scientist job to decide what to do with the money. But after a sit-down with the financial minister he was ready to take control of it with a list of what climate change will affect.

Comment: The economic costs of the impacts, for example, need to be packaged differently for our policy makers to make sense of it in terms of dollars and cents.

6.1.6 Data and information components of the Caribbean Large Marine Ecosystem Project (Néstor Windevoxhel)

Q: This project developed along a more governance theme which is somewhat different from other LME projects. Would there be a challenge in getting other relevant information as the budget seems limited to governance activities?

A: There is the assumption that most of the scientific information is in place. We will use the information from the organisations that are already working on these issues. There are opportunities over the next two years for these regional organisations to work with their partners in the field and to engage others through their processes at the national and regional levels to bring this information together. The mechanism to be put in place that will bring this together will be the governance framework. This is why the governance framework is so important. It will be the soul that will get other activities going.

6.1.7 Regional Experience of the project on prevention and control of contamination in the Gulf of Honduras (Edas Muñoz Galeano)

The "Environmental Protection and Control of the Contamination originated by the Maritime Transportation in the Gulf of Honduras" project, better known as the Gulf of Honduras Project; is a Tri-National project implemented by the Central American Maritime Transportation Commission (COCATRAM), between Belize, Guatemala and Honduras. Its development objective is to contribute to reverting the degradation of the coastal and marine ecosystems within the Gulf of Honduras. Other more specific objectives are: a) to improve the prevention

and control of the contamination related to the marine transportation in the main ports and maritime routes, b) to increase maritime safety and to avoid grounding of ships and spills, c) to decrease land base pollution sources that are washed into the gulf, and d) to implement a Strategic Action Plan. The project activities include collecting, analyzing, administering and publishing scientific and technical information regarding characterisation, productivity, vulnerability, state of the marine and coastal ecosystems, port activity rotations and adopting innovative technological approaches in order to achieve institutional strengthening of its key actors and assist the environmental, maritime and port management process of its member states. This way the Gulf of Honduras Project has made an effort to endow each country with hydrographic equipment that will make it possible to generate quality data and information to actualise existing nautical and hydrographic information within the five ports being assisted. The five project components address aspects such as training, establishment of networks for management assistance, socio-economic and environmental monitoring, application of maritime route norms, operational aspects, transfer of communication technologies and pilot projects *inter alia*. Among the tangible products we can mention are the Key Actors Network for the Prevention and Control of Contamination (GOLFONET),¹ Transboundary Diagnostic Analysis and its Action Plan (TDA/SAP), the Virtual Information System Study on Maritime Risks and its proposal for legal and institutional reform. Other products that are in a developmental stage are the Regional Capacity Building Plan, the implementation of the Regional Communication Strategy, the establishment of the Environmental Information Module and the establishment of the Environmental Port Management Unit. In the short term we expect to move ahead with the implementation of the Demonstrative Projects, share experience with other international projects, provide practical training on environmental management on risk reduction projects, establish five users in each regional port and purchase equipment for each of the ports to assist in cases of hydrocarbon spillage.

6.1.8 Cartagena Convention - Promoting information sharing within the Wider Caribbean (Christopher Corbin)

The Cartagena Convention is the only regional legally binding agreement for the protection and development of the Caribbean Sea. It has been ratified by 23 out of the 28 countries representing the Wider Caribbean Region and is enhanced by three protocols on oil spills, biodiversity, and land based sources of marine pollution. Contracting parties to the Convention under Article 22 regarding the “TRANSMISSION OF INFORMATION” are obligated to transmit to the Organisation (namely UNEP Caribbean Environment Programme UNEP CEP as Secretariat to the Convention) information on the measures adopted by them in the implementation of this Convention and of protocols to which they are parties, in such form and at such intervals as the meetings of Contracting Parties may determine.

The Secretariat has recently developed a draft reporting template for the Cartagena Convention and its protocols which is expected to be adopted at the next Intergovernmental Meeting and Meeting of Contracting Parties in Jamaica in October 2010.

Information Management is facilitated through one of the three sub-programmes of UNEP CEP: the Communications, Education, Training and Awareness (CETA) sub-programme which provides support to the two technical sub-programmes on Biodiversity (Specially Protected Areas and Wildlife – SPAW) and Pollution (Assessment and Management of Environmental Pollution – AMEP).

UNEP CEP has generated information products including best practices, experience notes, toolkits, manuals, guidelines, audio visual material, and environmental data from national and regional projects and activities. It also offers various mechanisms for sharing and dissemination of these products. These include list serves, web sites, a clearing house mechanism, online E forum, regular meetings and conferences, interactive web-based map platform, online pollution and protected area data bases and GIS decision-support systems.

UNEP CAR/RCU will be hosting the clearing house mechanism for the GEF Integrating Watersheds and Coastal Area Management (IWCAM) Project and is expected to do the same for a new GEF project - Caribbean Regional Fund for Wastewater Management (CreW).

The increased availability, access and use of data and information in the wider Caribbean is critical to sustainable development. However, existing mechanisms and linkages should be used and enhanced to avoid overlap, duplication and wastage of limited resources.

Comment: There is need for open-mindedness and to take note of this experience. The ACS looks forward to strengthening cooperation, relationships and learning.

6.1.9 GEF-IWCAM Project data and information management (Donna Spencer)

The Global Environment Facility-funded Integrating Watershed and Coastal Areas Management in Caribbean Small Island Developing States (GEF-IWCAM) Project aims to assist Caribbean SIDS to adopt an integrated approach to watershed and coastal areas management. The Project is currently being implemented in thirteen countries; it began in 2006 and ends in July 2011. The presentation looks at the Project's approach to data and information management and lessons learned.

The shortage of data and information for decision-making in Participating Countries (PCs) meant that the assessment of capacity to utilise and monitor indicators for the IWCAM approach, and the development of an indicators template based on GEF International Waters Indicators (Process, Stress Reduction and Environmental Status indicators) were key activities. PCs had to identify a suite of basic, priority IWCAM indicators addressing national needs and priorities. A set of core indicators is currently being tested in a pilot activity in Barbados.

The project has nine demonstration projects in eight of the PCs. The challenges of data collection, archiving and dissemination are described, as well as the approach being used to document lessons learned and good practices. This is the preparation of a series of long- and short-form case studies and experience notes developed using the triple bottom line approach (which looks at social, environmental and economic impacts of activities).

Considerations in the development of the IWCAM Clearing House Mechanism (CHM), which will make Project outputs available, are also discussed as these have implications for IWCAM sustainability in the region.

Lessons learned in data and information management and the implications of these for project planning are reviewed. Among other things, it is noted that: the most successful demonstration projects use data and results of analysis to inform project activities and build public awareness during project life and; from early stages of a project there should be a strategy for the development of systems and mechanisms for the dissemination of data and information into decision making. Project activities reinforce that good data and information management are ultimately about reaching people.

Q: In light of the problems related to metadata, is there metadata for this project and what are the arrangements made by UNEP for dealing with such information?

A: There are many agencies involved so a lot of time has been taken to think about the approach. There was a lot of talk about the sustainability of the project and this is why the CAR/RCU in Kingston was selected to continue the management of the project's metadata. There is a system of metadata that can be used to ensure standardisation which can then be used to link to the wider system through IWLEARN. The training is also important.

Q: What is the definition for a coastal region in the Caribbean?

A: Regarding SIDS, the entire island is considered to be a coastal region.

Q: Where do you get your information and how much of it was from governments, NGOs etc.? How will the project ensure that once it is finished, the data will have ongoing collection?

A: Some of the information was historical while some was new information. It was noted that there were pilot projects selected that would have an impact. These pilot projects utilised data where they existed. In some cases, there were gaps in the data and to address this, indicators were developed at each level to ensure stress reduction with the assistance of the technical coordinator and with GEF guidance. The challenge of dealing with data collection after the project is finished is something that continues to be of concern. There is a clearing house mechanism that will have linkages with many of the other databases. Contact database will be included to identify people or partners that may want to continue with some of this work. It is important however to ensure that the information is kept updated.

Q: What has been the Project's experience with the Plone software?

A: The first version of the website was in Plone which was developed for the project through the GEF IWLEARN. The website is not fancy but it is an excellent content management system and is very logical. The website is the Project's archive for completed work. To maintain the website, it is necessary to have a staff member designated for the update of the website. I must add that Plone is quite user friendly.

6.1.10 The role of Panos Caribbean in information sharing and networking (Jan J. Voordouw)

Panos Caribbean has worked in the region for over 20 years and has been based in Haiti since 1997. It engages in its activities specific groups of marginalised local people that are affected by certain development issues, who tend to be "voiceless." They have important contributions to make about what affects them. Panos Caribbean has developed a number of specific methodologies to amplify the voices of poor and marginalised at the science/policy interface. Some that could fit well in the work of the Caribbean Sea Commission are:

- (a) Oral testimony collection,
- (b) Journalistic fellowships, and
- (c) The promotion of collaboration between researchers and media.

Oral testimonies are a very natural form of communicating information, linking all spheres of life and therefore applicable to informing science and articulating policy. It is accessible to everybody (including illiterate people), is participatory and very useful for local research. The

direct voices can be used by CSC, interpreted by scientists, shared through the media and brought to policy.

Journalistic fellowships provide opportunities to investigate under-reported and misunderstood issues, resulting in a series of in depth media reports. The CSC could mobilise journalists to support the science/policy interface since they are trained to process large bodies of information and communicate the results clearly to audiences.

CSC could also usefully support the communication of research through the media, by helping journalists and scientists to create partnerships resulting in series of interviews and media productions, which should be disseminated to targeted audiences. Over the years, Panos has researched fisheries issues, children's rights, land (watershed) degradation, climate change, vulnerability, etc.

Panos' role in information sharing can therefore be summarised as empowering local people to articulate their issues and channel it through the media; produce briefings to reach policy makers and store the information (stories/expertise) with NGO/CBOs, universities and media. The role of Panos' with respect to networking is to bring representatives of affected people forward, ensure media coverage, engage scientists in media debate, create functional links between agencies and media, and help accessing stories and expertise.

Comment: We have been collaborating with PANOS to build awareness of climate change in three countries in the Caribbean and the feedback has been positive. PANOS was commended for their work.

Q: Do you track the influence that your communication has? Have you been able to say that policies have changed because of your work?

A: This work has started. In Jamaica for example, we have been checking with the data registries in terms of the policies and how they are changing and what types of meetings are there now between local or national authorities. Monitoring has been done over the last four years and can now be analyzed for changes. There is the challenge, for example, in Haiti where few policies are being enforced. In Jamaica it is better. A lot has changed because of the media coverage. For example, the child trafficking in Haiti, because of this and media coverage on CNN, now every child is checked when crossing the border to the Dominican Republic.

Q: PANOS operates in all the languages. To what extent is cultural material used?

A: Various forms of expression were used including music, art and videos. The art work, for example, has been exhibited and sold as tourist products. Recently there has been work with musicians to create a video on climate change in Jamaica. These artists have given freely of their time and resources in some cases. The hope is to make such projects more regional in scope. The video has been shown repeatedly at climate change meetings. We did work on HIV/AIDS and held concerts in different villages around the country (Haiti). More people showed up than lived in the village.

Q: Is IOCARIBE taking steps to incorporate social sciences including environmental economics and cost benefit analyses as part of the wide process of integrating biochemical and physical science?

A: This topic is being discussed especially within the context of sustainable development in marine and ocean science and management as opposed to the sectoral way of management. The IOC system also expects projects to incorporate the social and economic components.

6.1.11 Mexico's science based decision making process in ocean issues (Porfirio Alvarez Torres)

This presentation reviews current scientific research institutional structure and its relationship with decision making processes in Mexico. It discusses ongoing ocean policy activities in Mexico and scientific research in support of decision making processes. In 2001, the Ministry of the Environment and Natural Resources (SEMARNAT) established the Sea and Coast Monitoring Group, and tasked it with devising a strategy for integrating the environmental management of the marine and coastal zones of the country. In 2004, the Organisation for Economic Cooperation and Development (OECD) observed that Mexico did not have a commission or administrative agency that ensured proper coordination of the marine activities of government departments. At the same time, the National Advisory Council for Sustainable Development, representing civil society, asked SEMARNAT to set up a policy framework for the coastal zone. The response was the formulation of the national environmental policy for the sustainable development of oceans and coasts (NEPSDOC), which was published in 2006 and established a strategic framework for their conservation and sustainable use. The NEPSDOC sets environmental guidelines aimed at aligning and coordinating the Government's public and sectoral policies; and proposes a management model that is holistic, flexible, multidisciplinary and participatory. The main reason for NEPSDOC was that each federal agency worked in isolation resulting in a lack of coordination with other.

Mexico's ocean policy is focused on the development of an inclusive, accessible information system for guiding, communicating and coordinating scientific and technological research, with the aim of fostering the generation and exchange of knowledge, in order to support decision-making, environmental management and spatial planning, implement sustainable production systems and support the evaluation and monitoring of the environmental situation of oceans and coasts.

Given the scope of ocean issues and multi-sectoral participation, it is highly recommended that decision making should be based in science and technological development. That will certainly help to solve problems during the design and implementation of any decision making processes.

As part of the current government's priority actions, territorial land and sea use planning in oceans and coasts was proposed. The objective of this action is that the country's oceans and coasts rely on planning programs that determine potential and suitable zones for the development of industrial, tourism, agricultural, aquacultural, fishing and other productive activities. The Ministry of Environment and Natural Resources (SEMARNAT) has promoted the linkage between the three government levels in the local land use planning processes of coastal municipalities. The Land and Sea Use Planning (LSUP) is a vital instrument to advance sustainable development, as it fosters structural changes that may have an effect on economic and social behavior and in the maintenance of goods and services obtained from those natural assets.

Mexico has also created the Inter-ministerial Commission for the Sustainable Development of Oceans and Coasts (CIMARES) to aid the multi-sectoral development and concrete actions in oceans and coastal areas under the paradigm of environmental sustainability and based on robust science based decision making. CIMARES provides a new governance framework that engages with a wider stakeholder community and is co-responsible to conduct this new effort to develop

a new administration scope for oceans and coastal areas linked to the different government structures to generate integrated and coordinated management actions.

Q: Mexico is one of the few countries of the Wider Caribbean that cannot benefit from the SPAW protocol and CaMPAM technical assistance and training programs for MPA managers and fishers. Does your program include working with the government to make them sign this protocol?

A: I do not know specifically. It does not look as though Mexico will sign on to SPAW, but it does look like they will take on other protocols.

Q: How difficult was the exchange in Mexico; was there some sort of policy to facilitate the exchange?

A: We set two years, but it took us three years. We had to visit all over Mexico, it was very challenging. Once the products of the effort were seen it was very different. The civil society and everyone was sitting at the same table. The whole process is on the internet and logged. The legal aspect is another story, but we are getting there.

6.1.12 Science and information capacity in Venezuela (Jeremy J. Mendoza Hill)

Venezuela with a total area of 916,445 km² (continental area and islands) has a coastline of 2,813km bordering the Caribbean Sea. The extension of its continental platform, existing ecosystems diversity and the wealth of natural resource have made it possible for a diverse number of public and private institutions to generate scientific knowledge information on these aquatic spaces. At a governmental level the ministries of Science, Technology and Innovation; Environment and Natural Resources; Agriculture and Land and also Defense participate in the definition of policies, research finance and the registry of physical – natural variables, especially as they relate to seismic risk, hydrology, climatology, satellite observation applications and assisting with fishery research.

Public universities concentrate the majority of the country's marine science capacity. In particular, the University of Oriente (UDO) on its Cumana (Venezuela Oceanography Institute) and Margarita campuses (School of Applied Ocean Science and Institute of Scientific researches) and the Simon Bolivar University (USB), with its Technology and Marine Science Institute located in Caracas together total approximately 80 researchers in various disciplines, with a predominance in living resources. Other public universities such as Venezuela Central University, University of Zulia and the University Francisco de Miranda have laboratories related to marine research. Regarding the non- governmental organisations (NGOs) that are exclusively dedicated to the marine environment, the most outstanding ones are the Margarita Marine Research Station of the La Salle Foundation and the Los Roques Scientific Foundation. There are other NGOs with a wider interest specter however that are active within the marine environment such as The Nature Conservancy and PROVITA among others. Although there is no formal structure for marine research within the country, there are diverse nexus of inter institutional cooperation on multidisciplinary projects such as, the CARIACO project (active since 1995) and the different environmental baseline studies required by Petroleum of Venezuela (PDVSA) as part of their far shore activities, just to mention a few of the most recent ones.

Q: For all speakers this afternoon: Do you think the expertise that you have in your organisation would be available to link into a regional system?

A: I think that a great percentage would be available. I work at a university, and most expertise at universities would be available; they are happy to share. Government can be more protective. I think that the sharing of information would help to inspire marine science in Venezuela which in my view has been stagnant.

6.1.13 Information and science capacity in Cuba (Ana María Suárez Alfonso)

Communications and IT, Science administration and capacity building in Science and Technology, are directed by the ministries of Computer Science and Communications, Science, Technology and Environment and Higher Education respectively. Research priorities are discussed at the Cuban Science Academy. All Institutions relate themselves at the Cuban Scientific Network

Marine Science Institutions: Research related to Marine Science is conducted by several institutions, centres and laboratories located throughout the country. The more experienced ones are: Fishery Research Centre, Oceanography Institute, Marine Research Centre, Cuba National Aquarium, Geology and Paleontology Institute, Meteorology Institute, GEOCUBA Marine Studies, Bays and Coastal Engineering and Environmental Management Centre, Ecosystem and Biodiversity Eastern Centre, Cienfuegos Centre for Environmental studies, Centre for Marine Bioproducts, Centre for Coastal Ecosystems Research, Centre for Environment and Coastal Zone Studies. Also in each province, guided by CITMA, we have the Centres for management and Environmental Services Studies. In Cuba there is a Protected Areas National System, with several protected categories, of which several are marine areas.

State Commission: National Oceanographic Committee (CON) and MAB National Committee.

The main NGOs related to marine environment: Cuban Botanical Society, Cuban Zoology Society and the Nature Protection Society. Also the operational International Oceanographic Institute (IOI) Centre attached to the University of Havana.

Marine Science Universities: University of Oriente with its Centre for Environmental and Coastal Zone Study, University of Cienfuegos in collaboration with Cienfuegos Centre for Environmental Study and the University of Havana, with its Marine Research Centre (CIM-UH). These three universities offer a Masters Programme in Integrated Coastal Zone Management. CIM-UH has been, for 40 years, forming Cuban Marine biologist as well as some from Latin America and the Caribbean.

Latin American and Caribbean Integrated Coastal Management Network: Latin American and Caribbean Universities with masters' degree programmes related to Integrated Coastal Management.

Q: There is clearly a lot of information available in Cuba and human resources regarding marine sciences. Is there a list of these sources, and information and contacts for these people that you are aware of?

A: I did not bring such a list, but I do have one. There is a lot of information in the brochure I brought.

Q: The Bay of Havana is the tenth most polluted in the world, and you have improved it considerably. This is very relevant. How did you get the government on board and working towards making this better?

A: CIMAR was created at the same time; it only worked in the Bay of Havana at that time. Through this institution they gathered information relevant to this bay; it was a huge joint effort in the 80s. It was horrible to go in the water of the bay due to pollution. Everyone worked together; the science institutes, CIMAR, created a group that is part of the Ministry of Transport because most of the pollutants came from this sector. Also a research center was set up for the bay.

6.1.14 The Nature Conservancy's conservation data and decision-support tools for the Caribbean (Donna Blake)

The Nature Conservancy's Caribbean Science Team supports conservation work in the Caribbean by developing spatial datasets and decision-support tools. Our objective for gathering and creating GIS data is to turn these data into information products for use by conservation decision-makers. The Caribbean Decision Support System (CDSS) is at the core of our work and is designed to identify priorities in conservation action and assist with strategy development. There are three components of the system: (1) the insular-Caribbean-wide regional database of conservation targets, protected areas, and threats; (2) the tools and methods that can be used with the database, including tools to create threat surfaces, ways to identify biodiversity richness, and methods for identifying optimal areas for meeting conservation goals; and (3) a series of conservation "portfolios" that have been identified as important areas to protect in the Caribbean. The CDSS offers a unique, multiple scale management tool that integrates not only terrestrial, freshwater, and marine habitats, but important socioeconomic activities that influence the health of ecosystems. These data and tools can be used to gain insight into potential implications of environmental and economic decisions in a spatially explicit environment. Many decision-support tools have been developed for the CDSS and continue to be refined and made useful for a variety of conservation applications. Below are a few examples of conservation decision-support tools that have been developed for the CDSS and are available for anyone to freely download.

Protected Area Tools (PAT) (<http://www.gispatools.org>) provides a systematic, logical, and repeatable toolkit that helps planners evaluate activities or events that may be threatening habitat health and identify an optimal solution for meeting conservation goals.

Caribbean Protected Areas Map Viewer (<http://maps.tnc.org/CARIBPA/index.html>) provides an online tool for browsing and querying the latest protected area information in an easy-to-use web browser.

The Ecosystem Assessment and Reporting (EAR) Tool (<http://gg.usm.edu/ear/ear>) is a new tool that permits users to generate conservation action maps and graphs based on an ecosystems viability, threat, and management status.

The Caribbean Sea Level Visualisation Tool (<http://gg.usm.edu/slr>) is an online tool for assessing climate change impacts, in particular potential habitat impacts due to sea-level rise.

Q: I am interested in the experts that are talked to for the data. Where are the experts drawn from? Who do they work for?

A: Some data we collected, some we bought, some were given. The experts were drawn from a broad Caribbean pool, scientists, NGOs, civil society partners that could contribute to the

analysis of the information being put out. There was stakeholder participation from a regional, broad participatory process, and stakeholders could say if they wanted to be involved.

Q: In the habitat mapping, which habitats were you mapping? Is benthic included? Do you use equipment?

A: There has been some benthic habitat mapping done. There are different requirements for each situation; some of the information is too broad. We need to base decision making tools on data that is consistent throughout the region. We use five criteria for the information and combine those to create the map. We map both threats and biological parameters.

Q: Regarding the sea level tool – what were you doing with that?

A: We were able to look at a certain type of area e.g. mangrove, and look at what of that will be affected.

Q: Is sea level in relative terms, or absolute?

A: Relative I believe, but I am not sure; I will need to direct you to my colleague. We are working on metadata and will develop that further and get it online.

6.1.15 The Marine and Coastal Research Institute (INVEMAR) experience on data and information management (Pilar Lozano-Rivera, Daniel Mauricio Rozo, Julio Bohórquez, Leonardo Arias, Paula Cristina Sierra)

The Coastal and Marine Research Institute (INVEMAR), an entity linked to the Colombia's Ministry of Environment, Housing and Territorial Development, have among others, a mission responsibility to gather, analyze, provide and disseminate scientific and technical information regarding the characterisation, productivity and state of the coastal and marine environment, their resources and dynamics as a way to assist the relevant government management processes. In this manner, INVEMAR has made a continuous effort seeking the incorporation of information technology in all its mission processes. The activities address the normative aspects as well as the operatives, developmental and transfer of software solutions, all of these framed within the Colombia Marine Environment Information System – SIAM. Among the most utilised and available information products we have the Marine Biodiversity System – SIBM, Colombia Coral Reef Monitoring System – SISMAC, Coastal and Marine Water Quality Network – REDCAM, Fishery Information System – SIPEIN, Ocean Observation System – GOOS and the online Geographic Information Services – Geoportal. Other systems that are in a development phase are the coastal management indicator and the decision support system for the Marine Protected Areas Subsystem. In the short term we are expected to have advance on the consolidation of document and geographic management warehouses, the development of an integrated search engine and link the ocean observation stations with the Wider Caribbean. In the long term efforts will be directed to topics such as Business Intelligence and DSS (Decision Support System) and the strengthening of coastal erosion, climate and geology topics and especially to expand the coverage of the automatic monitoring stations (Caribbean and Pacific).

6.2 Open microphone

In regards to collection and sharing data the OECS has created the Caribbean Biodiversity Database which consists primarily of fisheries, ecosystems, and social data. It is meant to be a

web-based application. It is currently in a pilot phase and is expected to be up and running shortly. (P. Murray)

ACP Fish II is a brand new project which provides funds to Caribbean fisheries departments to look at research, private sector development, etc. The idea is to develop a knowledge exchange system which we see as generating information. My question to you however is: when we have all of this information how do we link it with what is going on within the CSC? (S. Grant)

Prior data is important. In decision-making it is important to look backward when looking forward. We use the past data to look at trends. The CaMPAM database is in a testing phase but will help determine the success of different MPAs. The cost to develop these databases varies. The historical database had a cost of approximately US\$10,000, which was established with a grant from NOAA; the cost of the MPA database was US\$6000. It was established with funds received from UNEP. (R. Glazer)

6.3 Discussion

Regarding how information from various agencies can be linked, as part of the preparatory work of this commission and part of its function, there needs to be a great effort to sort out the information from all the organisations; many have information available online. Maybe we need a few priorities to start to sort out. (S. Grant)

We have spoken about many different databases. My organisation is an organisation of nine very small states, with staff ranging from 1-15 or so. The mode is about 3-4. These people have to collect data, manage it, etc. Please be reminded of this. There is a dearth of capacity when it comes to data sharing. It takes a lot of time and people. Projects have no time to lose, but the need for changes of ways of thinking actually make it take longer in-country than it should. There is a lack of human capacity both in terms of quantity as well as quality. J. Voordouw's presentation brought an aspect we tend to forget as scientists which is the social side. The Caribbean Sea is not just fish and coral, there is also the child. Should we or should we not pay attention to the more social aspects? (P. Murray)

Regarding data and databases, we are going to be putting out an atlas of risk for hurricanes and natural hazards. We will need base maps. In respect to all the information we have been hearing about, how much is actually in public domain – or is it only available in picture (e.g. some final maps are available as pictures). Are the original baseline data available, or do you have to reacquire the baseline data? (D. Smith)

What difference is there between some existing regional marine science and conservation programs, and what this commission is planning to do regarding geographic coverage, thematic focus and partner institutions? (Online participant)

In regards to bathymetric charts, there are lots of free maps available, but resolution varies quite a bit from place to place within the region. Quite a bit is in the public domain. (R. Mahon)

I appreciate that they are using the internet for questions. Geographically all CSC members are attached to the Caribbean Sea. CSC is moving in terms of structure using the feedback from institutions that are already doing something in the Caribbean Sea. We want the feedback from other institutions that are not yet involved. We have the experts and institutions here that for years have been working with us. We have here member states involved and institutions. We have the support of the UN General Assembly through a resolution that gives support as back up

to this structure. We are, however, still in the stage where we are building the structure. (L. Andrade)

From almost all the GEF funded projects there is a database or information network created, but there will be a limit to how many of these databases and information networks we can develop and sustain. At some point we will need to convince the GEF that there will be a limit and need to synchronise these efforts. On a positive note, there has been great concern about data from our project and the sharing this data. In response to this, all countries involved have agreed to be the repository of the data. It is a difficult and sensitive project. The data will be going back to individual committees back in each country. Currently people are sitting down, analyzing the data to see how it will be used (C. Corbin)

My perception has been reinforced that we have a huge amount of information and expertise. One of the things that struck me is that the methods are only loosely connected to a functioning policy cycle - in targeted efforts, yes, but not in regular processes. We need to move into putting these policy cycles into regular processes. There seems to be a clear impression that a lot of these efforts are disconnected. My recommendations would be:

- CSC starts small, not try to attempt to build a data system that covers everything at once;
- Start with a few priorities that members have agreed are priorities;
- Then build a system to address those particular issues and prove that it [CSC] can provide advice on these;
- Then add a few ad hoc requests and show that it can respond to these requests;
- Then once it has demonstrated that it can respond, it should grow slowly from there. (R. Mahon)

With permitting of ships coming through waters, preliminary reports were due within six months and full report in two years. After putting them in the library, I looked back later to see who requested the information from these reports – very few – and maybe one request was a SIDS asking for the information. We seem to lack the capacity to digest and use this data. If we do not address the capacity need, this will not change. We can collect and archive the data, but if we do not address training then nothing will happen. In starting any strategy, do we try to identify knowledge and understanding of expectation, and knowledge and capabilities of the decision makers? Does anyone do this? We talk a lot about collection, quality of data, accessing – but for who, and how can they use it? (D. Blake)

We have lots of information, although it is not adequate, therefore we need more. However what we have, we are not using effectively. Decisions need to be guided by information available. There are different types of information. Take fisheries for example; we may consider a lot of fisheries information, but there is other information that could improve quality of decisions. We are not getting integration. In terms of the CSC, it would help if can provide this integration. The CLME project is correct in focusing on the governance dimension as we need to make more progress in governance. How can we use the information we have to make the best decisions? We need to look at both the regional and national levels for decision making on how we use science in these decisions. We also need to use the best information we can gather. Unless these policies are translated into legislation, then there is no long-term policy. A level of commitment beyond the current party in power needs to be addressed in order to bring in scientific information on key subjects. (M. Haughton)

I must admit that the day has been fascinating. We can see that there is a wealth of information out there; our challenge is how to deal with it. Things have improved from the days of libraries. I do not think you are going to outdo Google as a search tool. It is a great resource. There is so much to do, information to be collected, outreach, etc.; do not try to recreate that search engine. What a system is in 2010 is quite different than before all of this talk of information systems – be careful, do not try to recreate this. The fact that no one has tried to use Google in our field should not deter us; we should contact people at Google and talk to them about how to address these problems. Let us not try to create another database; we should be able to use the tools available. (P. Boudreau)

The problem lies elsewhere, not in the technical part. We are not making effective use of things already done. The problem is in the science - policy interface. Dealing with politicians there is a mismatch of timeframe – politicians are short-term, environment is long-term. I am not seeing CSC as managing the database.

We need to feed summaries up into a political body. Take an example from HELCOM. Ministers go back home asking for guidance – this is the thing we are not good at. The thinking that goes on at political levels is not just based on facts; it requires a different type of discussion. The Ministers meet once a year. We need day-to-day communication, sending information back and forth to the capitals. We need more contact and different kinds of information with the political side. IPCC has been making assessments every five years. It took a long while to get the subject on the international agenda. There is an interface with politicians and policy makers and science. In Indonesia IPCC rules are used to make that sort of interface. This is the same sort of thing we want to replicate at a regional level in the WCR. We need to get input from the political level. There is a lot of good information available, but it does not go anywhere – this is the pattern we need to change. There is a need for strong prior authorisation – if we do studies and present politicians with reports, they will ask who authorised the work. We need to get the politicians to ask us for information and work to be done. We need that prior authorisation to move this along. (J. Agard)

The first thing is to find the right questions to answer. If we are going to have a system to analyze this, it will produce answers for key questions we need to address. We need to hear the right people. Next we need to identify the mechanisms to use the information that already exists. There are already many people gathering information. We already have indicators prioritised by users in some areas. We already have status of key indicators and in some places they have already gone to government. We need to follow these examples at Caribbean scale. We also need a chart a minister can use to see the situation is not good. We do not need the large papers for the ministers, what we must do is to create something that can make an impact that in turn will create the political will; something that will make it personal to the policy makers but to the good of all. Another step is to use the information to influence three levels: local, minister/national, regional. We need to take into account, when we ask people to have a closed area for fisheries, that we are imposing a very strong restriction against the fishers' culture. This is what they do, they want to do, and they WILL do it. Therefore we need to convince the fishers that a closed area is an improvement for them, not the next village, but their village and their children. We need to get this through to them, so they can go to the government and ask for these networks. To convince the fishers we need the right information. (N. Windevoxhel)

There have been several repeated themes. The questions then are: How to package the information? How to get it accepted? How to get it to the top, not on the shelves, and act on it?

From previous experience I can add that having worked on the personal commission of the Prime Minister of Australia we had to work next door to Director of Economic Research and Director of Social Research. We had to work together, though we did not agree on all issues. We had heavy issues and the general public was so upset at these issues there were demonstrations, etc. To pass decisions they looked at hard scientific data, looked at facts, then according to the facts, they gave recommendations that they should do a, b, or c. And each had the social, environmental, and economic impact listed. Giving a single option was not an option; we had to give choices, justification, and impacts. Decisions were final – very tough, and there were no discussions afterwards. My thought for the day: gifts of sound scientific and technical advice should be delivered in a wrapping paper of sound social, economic, and political advice and choices. (P. Sammarco)

I often felt I was being taken for a ride during these presentations as I was not always told how these initiatives contribute to the CSC. The CSC, according to its mandate, should identify individuals, organisations, projects that can help the CSC as well as coordinate the acquisition, review and synthesis of this information. Regarding governance, does the CSC have the authority to get decisions made? Politicians do not make logical decisions they make political decisions. We should focus during the working groups on how to meet the mandate of the CSC. We need cooperation, collaboration, and integration of groups to help meet this mandate. Tomorrow we should not lose focus on why we are here; we are here to meet the mandate of the consultation. (M. Sutherland)

I wonder how much information is available from within the groups that has not come to the meeting. It would be a paradox if we talk about the information, but there is no coherence on what is done at a political level. In our experience in Central America, the political is getting close to the scientific. When there are wrong decisions, the public has demonstrated. There has been a demand that the politicians send out more information. When we make a recommendation the politician identifies more with a decision that can get lateral and political responses. The CSC could be a coordinator of thoughts in this meeting and those of partners not here, and act as a filter for what goes to the political level. We are looking at two levels, the regional and the national level. Some national issues can be regionalised, but not always; some have to be referred straight to the country. The CSC needs to produce a political proposal that can ensure the required elements are present so the political level can identify with the proposal. (M. Gonzalez)

The art of complexity is moving. CARICOM is moving to Spanish speaking countries. With the oil spill in the Gulf politicians will raise their head and look for information. CARICOM is the most vulnerable link to the Caribbean Sea. Central America is the most integrated system of the wider Caribbean and there are very advanced systems in Mexico. They all have a lot of experience to add. The CARICOM countries are the nucleus of the CSC. From diplomatic and political aspects we are moving and receiving response. We are moving in a coherent manner. International aspects are represented here at the meeting. And we are internally represented. We know the importance of the media and tried to get a journalist here. People should know what we are doing. The Advocate (Barbados newspaper) had this as front page news. Your participation has been crucial, and we would like feedback from you at the end of this. Give us ideas so we can endorse this body in the process of constructing an efficient mechanism. There is a demand for this. Demand from the CSC to get this endorsement. Demand the need to articulate what is

being done. Do not be concerned too much with politics, we have to handle it, but we are moving forward. (L Andrade)

I want to amplify on the excellent point made by Michael Sutherland. We are not as concerned about the journey over the past two days as it provides excellent context for what we have to do next. Tomorrow we should really focus on what we are here to do, thinking and working at the regional levels about mechanisms that will allow us to speak to policy makers, and find out what they need, and how we can provide it. Keeping focus tomorrow will make it easier (R. Mahon).

7 THE WORKING GROUP SESSIONS AND PLENARY

7.1 Methodology for breakout sessions

Working from a basis of shared-knowledge from previous experience and the past two days of presentations, participants worked in three breakout groups to address one of the three topic areas of the Consultation:

- Regional marine governance and the roles of the key agencies,
- Building a science-policy interface for ocean governance in the Wider Caribbean Region, and
- The information system needed to support the science-policy interface.

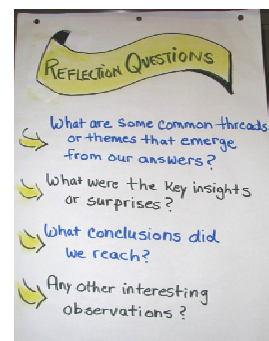
Each breakout group had a neutral facilitator and a rapporteur. The breakout process for each group was the same and consisted of two sessions. In the first session each working group discussed their specific topic in depth at tables of four or five participants. Each table addressed the following four questions:

1. In your opinion what aspects of the proposals you have heard in the meeting seem feasible and beneficial in making the Caribbean Sea Commission more effective?
2. In your opinion what aspects of these proposals would cause the most difficulty for implementation?
3. From your perspective what aspects of these proposals would you change or improve to make the Caribbean Sea Commission more effective?
4. What would it take for you to buy into this overall process?

At each table, a different person was asked to take notes on each of the four questions.

In the second session the tables were reorganised according to questions with all persons who took notes on a particular question being at the same table, i.e. all persons who took notes on question one got together; those who took notes on question two got together, and so forth. In the four new groups (one per question), participants compared their notes and synthesised the information on a flip chart using the following reflective questions as a general guide:

- What are some common threads or themes that emerge from our answers?
- Are there any key insights or surprises?
- What conclusions can we reach?
- Are there any other interesting observations?



Once these four groups had synthesised their information, there was a ‘walkabout’ to view the results of each group of note takers. Finally the rapporteurs and facilitators pulled together the key points pertaining to each of the four questions in a PowerPoint presentation for the plenary session to follow.

7.2 Final Plenary

In the plenary session the three reports from the three working group sessions were presented. For this session a panel comprising members of key agencies was asked to respond to the three reports and to discuss any connections or learning points. Participants then had the opportunity to provide input and feedback. The session was moderated by Prof. Robin Mahon.

7.2.1 Working group presentations

The PowerPoint presentations from the three Working Groups are provided in Appendix 3. Participants noted difficulty in considering each of the three topic areas in isolation from the others as they are all so closely linked. There was quite a bit of overlap between the reports. For ease of assimilation the points in the three presentations were compiled into conclusions and recommendations.

Participants concluded that:

- The Caribbean Sea is a common shared resource and that the function of the CSC should be to oversee and promote the sustainable use of the Caribbean Sea as a whole.
- Considerable expertise and information was available within the various groups present, but seldom used by decision makers.
- The likely reason is that many sources are unconnected to science-policy interfaces.
- There is the need for a regional science-policy interface.
- The CSC should focus on the connection between science, policy making and policy coherence at the regional level.
- The proposed structure was workable with modifications.
- Those present were committed to working together to build this interface.
- The proposed structure and operation of the CSC could provide considerable added-value to the current ocean governance arrangements in the Wider Caribbean Region.

Ideas, recommendations and constraints from the Working Groups are summarised in the following themes:

- **The CSC can promote cooperation at both regional and national levels** by facilitating networking among existing formal bodies and promoting mechanisms needed to build consensus at national and regional levels. The CSC should work as much as possible through existing mechanisms and organisations to avoid overlaps and duplication of effort. It must clearly define its own role in relation to regional partners.

- **National level inputs and engagement are critical for success** as decisions of the CSC are implemented by countries. Mechanisms are needed for obtaining national commitment for implementation
- **Clear planning** should underlie the development of the CSC in all areas to produce clear definitions of the roles and functions of the CSC and its Sub-commissions as well as of roles and responsibilities of partners. A Strategic Action Plan that includes regular evaluation of programmes to identify strengths, weaknesses and effectiveness is needed.
- **Legal arrangements** are important and ultimately a legally binding instrument under which there could be consequences or sanctions will be needed to protect the resources of the Caribbean.
- **Dedicated financial and human resources** are essential for the CSC to achieve its objectives. These include both start-up and sustainable financing. The CSC needs a dedicated Secretariat with staff, funding, and appropriate location to support its work and that of the Sub-commissions.
- **Several key principles** for success include: transparency of activities and open access to/sharing of information; inclusivity, with national and regional partners being fully engaged in planning and decision-making; efficiency and effectiveness, ensured through regular monitoring and evaluation.
- **The information system** to support the science policy interface should be distributed rather than a central repository. It should provide a regional portal for data and information gathering and interpretation. It should facilitate equitable access to information in participating countries and by all organisations in the region.
- **Communication will be the key to the success of the CSC.** Information and communication strategies are needed for policy makers, national and regional partners and the general public. Communication should promote bringing science to policy makers and help policy makers frame appropriate questions for scientists. Public information is a key element if the benefits of the CSC are to be recognised in the region
- **Capacity building** is essential for success of the CSC, especially the information system, owing to widely different capacities of countries to provide and generate information.

Further details of the outputs from the Working Groups can be found in Appendix 4.

7.2.2 Panel comments

The moderator invited Panel Members to provide their comments.

Ana Maria Suarez

I am in agreement with the conclusions of group one. It is essential that the CSC has a role of exchange coordinator and facilitator among everyone: regions, countries and islands, as well as with regional organisations. The CSC needs to have a small team to assist with coordination work between meetings and which should also coordinate the Sub-commissions. It must make use also of the existing networks. This secretariat - why should it be formed? Who would

designate it? If there is a member per nation it would then cease been small. Sometimes we tend to speak as if the CSC was not composed of persons. We repeat over and over that the CSC must close the existing gaps, but I believe that primarily it must view what is there with respect to other regional organisations and complement it. Building capacities is essential in order to achieve the proposed CSC goals.

The central node must exist with a multidisciplinary team. It is necessary to have a filing centre, simple and accessible to all, which must contain all useful information. This way, links can be shared with data providers. Not everyone is willing to share their data; until CSC becomes a fully credible entity this will continue to be a challenge. Mega-data must be made available not only to the scientists but to all sectors.

There is a need to clarify the CSC structure. It is difficult to have frequent meetings among scientist as there are insufficient funds, however networking or e-forums can be a substitute for meetings and the themes can be discussed. Within these spaces it will be possible for non-scientist persons to also participate.

The media are essential to the Caribbean Sea Commission and little has been said regarding this aspect. This is one of the reasons why the CSC is the grand secret. The communities must be capable to reach out to the scientist, politicians, businesses and the general population. It is they who will divulge the successes.

There must be a strategic action plan, we must learn by doing, as was previously said by Lucia. It is not enough to compile data. Projects that are already ongoing in some of the regions need to be implemented and made Caribbean, i.e. take the Central American example on the lobster study, larvae connectivity, migratory species such as turtles and pelagic species.

We must be vigilant with regards to the oil spill and the Gulf of Mexico, we still do not know what will happen if we have high intensity hurricanes. It is also an experience to be considered seriously, since such an accident could also have occurred within the Caribbean.

There is no doubt that there is a necessity to have credible regional leaders. We have them. It is now a matter of identifying who they are.

Franklin MacDonald

Thank you very much, and it is a pleasure to be in this position at the end of the three days. I have been part of the process up to now, trying to represent the Regional Seas Programme on the Commission, while also wearing a little hat for the University of the West Indies and even wearing a very small hat for the Jamaican National Commission on Ocean and Coastal Zone management.

I have been struck in the working group presentations and in what has occurred over the last few days by the degree of consensus. Nonetheless one of the presentations concluded that there are challenges that we must address, and I would like to focus a bit on that. First of all I think it is



The final plenary: (L to R) Prof Robin Mahon, Moderator and Panel Members, Ambassador Luis Fernando Andrade Falla, Mr Franklin MacDonald, Dr. Bob Glazer, Mr Christopher Corbin (Dr. Ana Maria Suarez is missing from the picture)

extremely important that we deal with the issue of how the Commission will articulate itself, how it will be operationalised; how the coordination takes place and about the internal culture, ethics and transparency which will be taken on board, because it is the intention that the CSC be transparent and accountable to all its partners.

The Commission needs to consistently and continually look at adding value. What I have heard over the last couple of days and was confirmed by the working sessions is that, while there is a lot happening, we are not satisfied that we have gotten to the point that we must get to. There is a sense of urgency which existed even before the affairs that are happening in the Gulf. I think what we need to look at is how we generate from what has happened over the last few days - some short, medium and long-term actions to bring about what the ACS and the early thinking of the Commission have tried to articulate. Then we need to mobilise the resources to get things going and begin the process of synthesising much of this work. There has been some discussion about inhibiting factors, and we have to deal with the issue of turf. I really do not think this is as big a problem as it was before. We need to move forward and bring on board the existing institutions because they bring a lot of value, experience and resources.

I must emphasise the need to facilitate national systems. There are some national systems which are structured, strong and have been sustained for some time. However, there are some national systems that are in need of support, and there are various entry points for providing this. Some of the partner territories have not signed into all the agreements that are available, some of which are facilitating mechanisms. There are also discontinuous efforts. Some countries have well articulated statements of intention which need to be acted upon. We also need to look at the issue of facilitating mechanisms. In many cases the multilateral agreements have come along with facilitating mechanisms so there is some experience in doing it, and we must look very hard at how some of those stimuli can be applied in this area. We have to get statements from the political level about how important this is. If it takes matters such as sea level rise or what is happening in the Gulf of Mexico to get their attention, then we should be addressing the issues with some of the concerns we have with the media. Finally, it is important that we communicate effectively with the region's journalists and media houses in a manner that will bring about more of the results we want.

I do not think I have much more to add. I think what was said about developing strategic action plans would cover some of my concerns. What we need to do now is to press on and make this happen. As one of the persons who have been involved in the interactions among the key partners such as the ACS and UNEP, I appreciate the input of HELCOM and the support of the Government of Finland. I certainly think that we owe the latter a vote of thanks.

Bob Glazer

Overall Impression: It was overwhelmingly evident throughout the workshop that there was a recognised need for this Commission and that it filled an important gap. With that in mind, I felt that it is our role, and I would argue, our obligation to ensure that each of us does all we can to ensure the success of the objectives of the CSC. Rather than summarise all that had been stated so eloquently before, I want to step back a little and reflect on where we have been and how we need to get where we are going

Reflections: Strategic Plan Development. Throughout the meeting, we have generally accepted the principal that there is no single model that can fit the Commission. However, I would argue that there is much to be gained by considering the model of successful businesses. In all cases,

these businesses have started with a comprehensive business plan that was realistic with goals that were achievable, defined in part by the available resources.

In this spirit, I want to emphasise the importance of developing a comprehensive and well-articulated strategic plan. The strategic plan should be based upon a realistic assessment of resources. The incorporation of clear and concise mission and vision statements will help to define the role of the Commission both for internal as well as external guidance. The roles and responsibilities of the various Sub-commissions should be defined with the plan. Goals and milestones should be tied to actions with measurable outcomes and should be achievable. Both short-term and long-term goals should be well-defined. Short-term goals could be attained with little effort e.g., development of a searchable metadata database. However, more ambitious objectives may be either longer-term objectives or unattainable with current resources. The roadmap created in a strategic plan will both outline and importantly, limit the scope of activities in which the Commission engages.

Recognition that not all issues are Caribbean-wide in scope: The structure of the Commission should address the complexities related to culture, location, language, and governance structure and recognise that issues may be very local in scope. The Commission may want to address this issue by creation of offices or units that are limited by culture, location, or governance structure.

Creation of offices/positions: I was struck by the recommendation of one breakout group on the creation of a position of Scientific Advisor. I agree that a credible scientist will go a long way towards adding legitimacy to this Commission. In the same regard, a great deal of emphasis should be focused on the Sub-commission on Governance, Communications and Outreach. In fact, given the demonstrated importance of communication and outreach, it may be in the interest of the Commission to develop an Office of the Ombudsman, an Office of Communications and Outreach, or even a position of Press Officer. This office or position should be responsive to both incoming requests as well as outgoing notifications on emerging issues.

The CSC as a source of defining priorities for funding: One role of the Commission that was not addressed but may be significant is that of defining priorities for funding. GOs and NGOs are always looking for input into developing funding priorities and the CSC can serve an important role in this regard.

Conclusions: In my view, there was already a great deal of buy-in related to those organisations and individuals in the room. Beyond those present, the United Nations also recognised the importance of this body with their resolution. However, there are still challenges related to endorsement of the Commission in the more regional sense and development of a well-structured and realistic Strategic Plan will go a long ways towards addressing this issue, allaying fears and creating more comprehensive buy in.

Christopher Corbin

There is a need to have a better overview and picture of the management/policy/use issues related to coastal and marine resource management in the region. This needs to consider concerns/issues at all levels - regional, national and local and would reflect the input of policy makers, government technocrats, private sector, scientists, NGOs and local users such as fishermen.

It is important to recognise that existing international, regional agencies and Government Ministries have established mandates and specific roles and responsibilities. These should be considered in ensuring we move forward with a common purpose in the operationalising of the

CSC. In that regard, it is important to identify who is doing what? What are their mandates? And what are the gaps where the CSC can bring the greatest value added?

There are several opportunities to work towards common/shared objectives, but it must be through mutual beneficial partnerships that bring value added to all agencies involved. It will be important to build on what already exists to make interventions more effective rather than re-inventing the wheel and not "waste" resources on things which are not working or cannot be fixed.

The Process moving forward must be as inclusive as possible – all stakeholders must be involved at the earliest opportunity, especially the Member Governments, to ensure full endorsement of the process. Mechanisms such as the Cartagena Convention could be used to facilitate dialogue with countries not part of the ACS such as the United States.

The CSC should promote cooperation at the political level rather than attempting to coordinate other agency activities at the operational, project and technical level. It should also recognise that apart from the ACS other political fora exist which must be engaged.

For the work of the CSC to be most effective, it must also support capacity building especially at local and national levels. Such capacity would directly contribute to long-term sustainability and efforts should be made to have relevant issues of the CSC incorporated into formal educational curricula.

In conclusion:

- ACS/CSC needs to play both a proactive role and responsive role in providing policy advice and information and coordinating work across sectors and in various political fora;
- There needs to be improved communication about the entire process, roles and responsibilities, objectives, what specific gaps are the CSC aiming to fill, a clear work plan and so forth to ensure transparency and credibility;
- CSC should start small with high priority, high impact, short-term activities to gain buy-in and support; and
- Finally, while recognizing that resource mobilisation will be key to get the process going, it is important that efforts are made to source new and additional resources and not compete with existing agencies for the limited resources for ongoing work on the protection and development of the Caribbean Sea.

Luis Andrade Falla

This meeting has not been improvised, the resources have not fallen from the sky, the team of experts that is here working is doing it out of a profound commitment. They are very prestigious within the region. Dr. Robin Mahon and his team would not be here wasting their time during these past three days if they did not believe in this project. If the UN did not believe in this initiative, Secretary General Ban Ki-moon would not have received us two years ago, and there would not have been any resolution on our aspiration for the Caribbean Sea to be recognised as a special area.

Two years ago Dr. Agard, who is here with us, and I, had a conversation, and an idea was born. Everything begins with an idea - a strategic vision. Resources are not a problem. That is not the

issue. The thing is to be creative, form strategic alliances that the idea can be bought into, and be of interest. Here I would like to quote Robert Glazer, "Is there a need, yes; is it a generalised need, yes; is there interest in this, yes". We are working along these lines and precisely because of this, we have been advancing.

Why is the Baltic Sea Commission here a second time? It is not the first time they have participated, it is their second time. Why is the delegate from the Black Sea Commission here? Why did we insist that she be here? Why are Counselor Ingmar Ström and his assistant here? Ambassador Mikko Pyhälä was also here with us. Why has the Barbados Minister of Foreign Affairs been participating in the past commission meetings and continues to participate? I reflect on these issues to point out that behind this event there is the work of many people, not only the experts or the secretary here before you; there has been a lot of work, meetings and more meetings as well as consensus at very high professional level regarding the way forward and the importance of this meeting. We wanted to hear you more, than for you to listen to us.

I recognise there is a deficiency as to people knowing what the CSC is all about. This exercise is about bringing all of you together, your concerns and ideas - above all the ideas. We realise of course that you did not have sufficient information to present proposals. They are however very good ideas. We have taken due notice of these ideas. We have a record of this meeting and have no fear to open it to the public. With regards to mass communication, whatever achievements we experience, we share it with them. I would have liked to have a journalist here with us; we made the effort however we were not successful.

We have here select and privileged human resources with vast and diverse working experience within the Caribbean Region. We also have million dollar projects ongoing within the region in need of support and others that are still in the concept phase but which can obtain resources. I ask of them not to fear contacting this Commission as it is here to assist such projects, to make information sharing possible. I believe that this will permit us to strengthen our ability and make it possible that, as a region, we get closer to the international community. This includes CARICOM and Central America who present themselves separate, yet with similar voices, and clear objectives.

The strategic plan is to be seen as united with plans, as serious, transparent and credible entities all which you have outlined. We are working on this. However for the international community we are small developing states. The OECS countries, and I was speaking with Peter Murray, are priority countries, the countries in most need, we need to support them, and that needs to appear in the strategic plan. We need to take into account the Central American experiences.

This is a process. It is not to be pushed beyond what is reasonable. It is a natural evolutionary process but where is the secret? I return to the issue Bob Glazer addressed when he stated that both you and the organisations may not seem to wish to make a commitment, however you are willing to aid the process. If after this meeting there are still doubts, we will see how much we can advance and if it is possible for us to unite along the way. We can then see this as an outcome. What we expect to come out of this meeting is your support and commitment to the process. We need to report back what went on here. A report is due to the UN. We have already submitted a previous report, however they are giving us the opportunity to add the results of this meeting to that report which will be presented to the UNGA as evidence that we are advancing. We have demonstrated that we have the power to convene. There are resources, not much, but we have some, plus there is an international community interested in providing assistance although not all are with us at this meeting.

To conclude, I would like, in the name of the ACS, to thank everyone for their active participation. You are the essence of this project. Diplomats, I consider myself a diplomat, and political leaders must receive from you quality information and proposals. They are now overwhelmed with diagnostics; they need to be provided with options. Take the example of the CLME Project, an idea that was presented by Dr. Robin Mahon. I was present at the meeting in Cartagena for its official launching. Imagine my surprise when I saw over 20 countries represented in the project. Project such as these are tailor-made for the ACS and specifically for the CSC. We have then a clear example of something we can all work on and establish links for agreements, cooperation and information. This project can serve as a reference and it may also result in the development of other projects. I invite all of you, as part of a select Caribbean group to show your support towards the Commission

I wish to make a public recognition to CERMES for their deep involvement in this process and to all three campuses of the University of the West Indies. We are hereby working on a proposal that seeks to commit UWI's assistance to the overall CSC process as they are already engaged in marine affairs studies. We also take into account that there is within CERMES, committed human capital with high international recognition. Dr. Mahon has both credibility and a contact network which is proven by the fact that you all are here. Through his work he has shown that he believes in the CSC.

Please be reminded that this is a process highly based on your commitment. I continue to be optimistic and believe that as we manage to put things in place, which in turn will benefit the member states, we will see countries taking on more active participation. This journey has not been easy. Initially we had practically nothing on which to go and now as you can see we have managed to bring together a large and diverse number of people. I truly appreciate your participation and intellectual honesty. Thank you.

7.2.3 General comments and discussion

Following the panel comments participants gave brief insights of the impact of the meeting as they perceived it. They also reaffirmed their commitment to assist the CSC to achieve its mandate. Below are their words to that effect.

I agree with what has been said, and I offer my support to you. We have our role and we do it simply by participating. We have an example of the possible things that we have done. In the case of the lobster fishery we started with one organisation. We got help from Cuba; there are a lot of scientist and information there. Thanks for inviting me and I am committed to participate. You can contact me at the Fisheries Institute in Puerto Rico. There is a lot of talent here that we have, and we have gone about it in a positive and professional way. I reiterate that we are at your disposal. (M. Rolon)

For the first time I see how advanced the Caribbean region is in environmental protection. You are bringing your achievements to not only the region, but to the world, and I will take this back to the Black Sea. The projects are great, if you can get some money given to the region, it will create commitment. With this commitment already there, it is easier to attract other donors. The IMO contacts the Black Sea Commission because they do not get required information from the given states. It is important to know who the one contact for the region is when you want information. It is not a beauty contest; that is why the idea of having one focal point is important. Everyone should not be competing. When I want to know something in the Baltic region, I do

not go to each website; I go to HELCOM, because most of the information is already there. There is one webpage with links to direct you to where the information is. There should be a regional picture with all the states updating annually. Regional success on national agreements will make things go faster and easier. Of course it makes no sense to duplicate effort - you know each other. I wish you well (V. Velikova)

The CSC has the full support of the Secretariat of SICA and the Central American region. We are happy to offer our mechanisms. We comprise eight states and observer states. We also have the support of the Ministers of Environment, Security, and Agriculture. They meet twice a year so SICA can help in any initiative the CSC initiates. We can be a strong arm given our support and experience. We have permanent governability, so we can help to implement your recommendations. SICA supports this organisation and will go with you, hand in hand. (C. Salazar)

I ponder on Christopher Corbin's words very often. Let us not reinvent the wheel. There is a five year old report that is a sort of map on the Caribbean initiatives; the ACS commissioned this report. We have heard many of these initiatives that have been implemented, but we have not heard from all of them. I think that as a first step we should revisit that report and update it. (C. Gomez)

I have learned a lot from this project. I am in charge of a project that is very similar in the Gulf of Mexico. In Mexico we see it as our responsibility to give what we can to support the Caribbean. I am personally very committed to this. There are a lot of programs and initiatives already. As the Ambassador said, the resources should not be a problem, but we should have a strategic plan to use resources wisely. We should bring in line the budgets and have an action plan. We should support and strengthen the CLME project. We should have concrete schemes to define goals and objectives of this region. Cuba always enriches our meetings and adds a different perspective. The project in the Gulf of Mexico is trying to get a bi- or tri-national agreement. It is important to be here and understand all the problems in the area, we want to help and support this project. We should all not be working in isolation. We will create a space of communication, to understand problems and obstacles that have been difficult to work with. We will work together to move forward. Congratulations (P. Alvarez)

It is good to see the progress we are making. We need to go about this very carefully, slowly, and do it the right way. I think the basic thing we are trying to do in the region is to improve governance. We have many bodies that are not functioning properly. The truth is that it is very easy to have an organisation that is not functioning properly. We have many different views, and while there are some common interests, we need to keep this in mind as we move from here. I think that governance is important. The principles of governance keep coming up, time after time. We need to put systems in place to have this as a reality. That is our big challenge. I think we are moving in the right direction. (M. Haughton)

It has been a pleasure to learn from all of you. We have a vision, an idea. We know that the capacity exists. It makes me optimistic that we will have success in the future. You can rely on my support in this project. This CSC is the perfect vehicle for the governance model that we have developed in the CLME Project. This will be sustainable, because it will move forward with each of the organisations involved. You can count on my personal and professional commitment. (N. Windevoxhel)

The OECS has two legal categories with two types of members – full and associate membership and the non-independent. This came up because in some of the initiatives we were not able to bring them on board because of their political status. We took the statement as a directive to ensure that the non-participating members are able to participate. We have countries that are impacted by the Caribbean Sea, whose people’s livelihoods are impacted, but which by virtue of their political status cannot participate in the ACS or the CSC. It is incumbent upon us to ensure there is some mechanism for their representation or at least we must always be mindful of their needs. This is what I bring to you. If we are revising our framework even by way of a diagram, we must have something in there for the non-independent countries. The fact is that they are an integral part of this community of the Caribbean Sea. The ACS states are just a part of this community. We must be mindful the needs of all our people, whether or not we are thinking, planning or looking ahead. This is not the time for passion but the time to think and chart the way ahead. (P. Murray)

When I came here a few days ago, I did not, like many people here, have any idea of what this Commission was, what it had done and where it could go. I think the great success of this meeting is that we have all started to feel that this is possible. This is a wonderful group of people that have been invited, but when I look at those objectives, I think some follow-on activity is needed that includes some other sectors. We have been talking a lot about inclusion, inclusiveness. I can imagine the next steps in the near future. There can be an activity at some business convention to include the business sector, especially tourism and shipping. Also, there can be another event to include the cultural sector, music that is also separated by language. We could think of course of marketing, media or something like that; also some kind of activity to share information and obtain feedback with the educational sector. Many of the problems in the Caribbean still originate at the school level where we are taught more that we belong to the English speaking Caribbean or the Spanish and not to the Caribbean. There is still not the uniform identity. (J. Voordouw)

You really have a great amount of talent. Governance is a concern, and people have been disappointed in the past. Hopefully we can assist you with that in the future. Others have mentioned the need to know who you are giving information to. The more accessible information is, the more useful it is to the policy makers. We look forward to ways we can support the ACS and CSC and for all of these minds to continue the good work. (E. Luck)

I consider this meeting to be relevant because it responds to the needs of the countries of the region. This is an initiative of a group of member countries which has been formed. Bear in mind we are the oldest fishing organisation in the region with our commission called WECAFC. We have seen how the region has grown in terms of its human resources and in strengthening its institutions. We are willing and open to work closely with this organisation to strengthen our links (exchange and cooperation) with you and help as far as we can. (A. Gumy)

7.3 Closing

The moderator brought the session and the consultation to a close by first reflecting briefly on its purpose and whether these had been achieved. He agreed with previous comments that considerable progress had been made in the course of the Consultation. He noted that there was evidently a common understanding of the direction for the CSC and consensus on what needed to be done in order to move it forward. He expressed the hope that participants were leaving with a much better view of what the purpose of the CSC is and of the roles that the many partners in

the region could play to improve ocean governance. He then invited Counselor Ingmar Ström of the Ministry for Foreign Affairs, Finland to make some final remarks.

Counselor Ström addressed participants. After three days this group has become a group of friends. I have not taken the floor many times because I have been listening, and it has been fascinating to be here and learn. Now at the point of closing, it is possible to evaluate. When our government funds a project we like it to be relevant, to have good organisation, an appropriate and extensive participation and, finally, a concrete outcome.

I think we can confidently say that in this project we had full success on all points. It has been very relevant indeed, and the organisation has been absolutely perfect. We owe our thanks to Prof. Robin Mahon and all the staff at CERMES and at the University of the West Indies. We know that you personally believe in this approach to governance, and the sustainable development, of the Caribbean Sea, that you like to be right - and we believe you are right in this. The idea of an interchange of experiences between the Baltic and the Caribbean came about at the initiative of Ambassador Andrade when he visited Helsinki. But this expert meeting has turned out to be an even larger exchange of opinions and information, with very focused and stimulating discussions, which can certainly benefit the governance of the Caribbean Sea in an even larger context.

I would like to thank the participants, from many corners of this region but also from far away, such as the US, Canada, the Black Sea, Sweden, the Galapagos, and Australia (though actually based in Trinidad). You have given us both words of caution and of optimism and that should provide for a balanced approach in going forward.

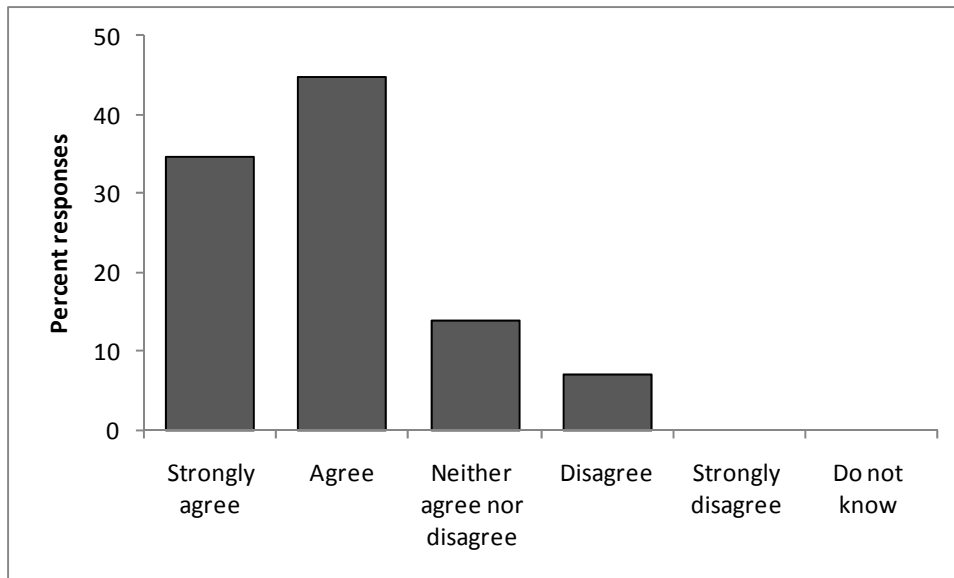
This meeting confirms that Finland has good reasons to be present in the Caribbean and that it will be a pleasure to continue to work with you in matters of sustainable development. I can also assure you that HELCOM is willing to actively collaborate as necessary. We are looking forward to a long term relationship.

The consultation concluded.

8 PARTICIPANT EVALUATION

Participants were asked to complete a brief evaluation survey which was emailed to them after the Consultation and which could be completed on line. There were 29 responses. These are summarised below.

To what extent do you agree with the statement below? (Select the response that comes closest to your opinion) The presentations, on the first and second day provided me with adequate context for strategic level understanding of the possible role of and opportunities for the CSC in the Wider Caribbean Region.



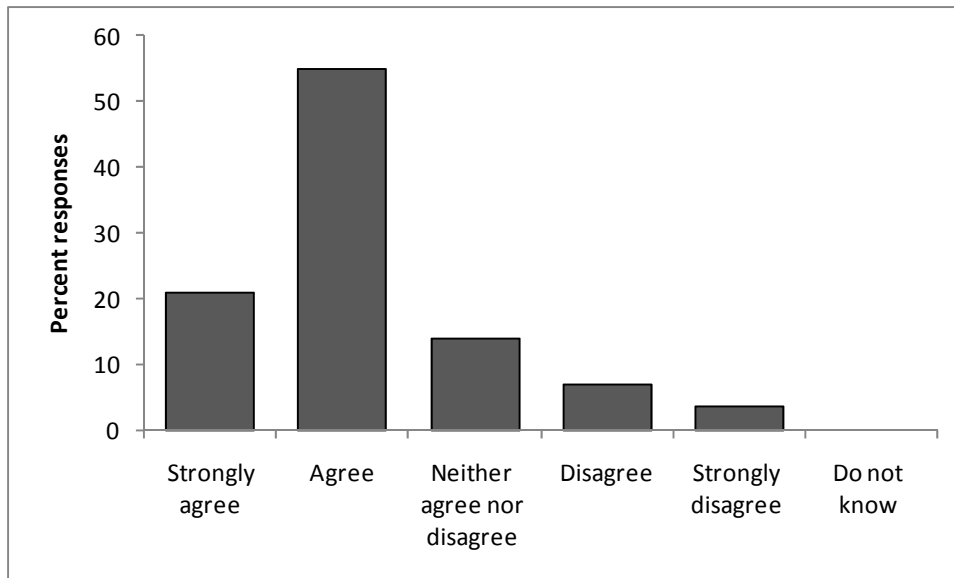
What did you LIKE MOST about the presentation sessions?

- Informative as they gave a broad overview of activities within the region and provided excellent background information -- 12 responses
- Comprehensive, well moderated and kept to time -- 7 responses
- Diversity of Caribbean activities/organisations presented -- 6 responses
- Well designed and organised with good flow of ideas -- 3 responses
- Information on the CSC – 1 response

What did you LIKE LEAST about the presentation sessions?

- Needed more time for discussion -- 8 responses
- Too many presentations for one day -- 7 responses
- No direct Link to the CSC -- 6 responses
- No Dislikes -- 5 responses
- More helpful background Information Needed -- 3 responses
- Room too small – 2 responses
- Feeling that much has still has to be done, mainly at the political level, for the CSC to become operational – 1 response
- Some presentations overly technical – 1 response

To what extent do you agree with the statement below? (select the response that comes closest to your opinion) The workshop sessions on the last day provided me with enough opportunities to contribute my ideas on the role and structure of the CSC.



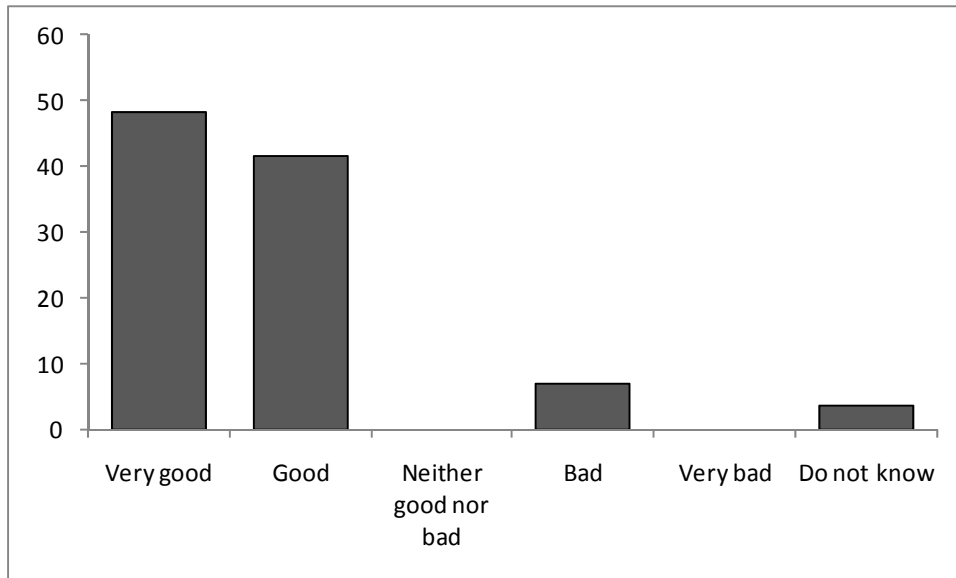
What did you LIKE MOST about the workshop breakout session?

- The methodology as a way to reach consensus and the small size of the discussions groups – 10 responses
- It provided opportunity for interaction/dialogue -- 8 responses
- Well Organised -- 4 Responses
- Opportunity to brainstorm CSC Roles -- 4 responses
- Opportunity to recommend creative arrangements – 1 response
- Opportunities to get to know the people at the workshop – 1 response
- Exchange of ideas and realizing that most others had the same reservations/questions – 1 response
- Opportunity to focus on one area and the support of the technical person - Dr. Fanning – 1 response

What did you LIKE LEAST about the workshop breakout session?

- Have no negative comments -- 3 responses
- Not enough time -- 10 responses
- Straying from topic -- 2 responses.
- Clarity and application of the facilitation method -- 6 responses
- Not being sure if I was at a table with the right people to give appropriate answers -- 1 response
- The ideas agreed on in the group were by and large not articulated by the presenter -- 1 response
- Too long -- 1 response
- Because the overall objective of the CSC was not clear, people had their own views hence the discussion was difficult at times -- 1 response
- All on the last day, some participants had left -- 1 response
- The small annex to main meeting room was very noisy! -- 1 response
- The facilitators should have spent a bit more time setting out the approach -- 1 response

In terms of quality of experience, as time well spent, what overall rating would you give the consultation as a whole? (Select the response that comes closest to your opinion)



APPENDIX 1: LIST OF PARTICIPANTS

Opening ceremony

Hon Christopher Sinckler, MP
Acting Minister of Foreign Affairs
and Foreign Trade, Barbados

His Excellency Mr. Mikko Pyhälä
Ambassador Extraordinary and
Plenipotentiary of Finland to
CARICOM and the OECS

Ambassador Luis Fernando Andrade
Falla
Secretary General
Association of Caribbean States

Dr. Eudine Barriteau
Professor of Gender and Public
Policy and Deputy Principal,
University of the West Indies, Cave
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Mr Algernon Leacock
Honorary Consul for Finland
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APPENDIX 2: PROGRAMME

Day 1 – Wednesday July 7 th		
09:00-10:00	Opening ceremony	
10:00-10:30	Media interaction, funds disbursement and refreshment break	
Marine governance architecture for the region (Moderator – Néstor Windevoxhel)		
10:30-10:45	The purpose and structure of the consultation	Robin Mahon
10:45-11:00	The status of the Caribbean Sea	John Agard
11:00-11:15	The Large Marine Ecosystem Governance Framework as a model for the Wider Caribbean Region	Lucia Fanning
11:15-11:30	National level interactions with regional organisations	Patrick McConney
11:30-11:45	Engaging stakeholders in generating advice – the case of fishers	Terrence Phillips
11:45-12:00	The role of the ACS CSC in regional governance	Luis Andrade Falla
12:00-12:15	The role of CARICOM CRFM in regional governance	Milton Haughton
12:15-13:30	Lunch	
13:30-13:45	The role of SICA OSPESCA in regional ocean governance	Mario Gonzales
13:45-14:00	The role of the OECS in regional ocean governance	Peter Murray
14:00-14:15	The role of regional UN IGOs in regional governance – UNEP	Christopher Corbin
14:15-14:30	The role of regional UN IGOs in regional governance – FAO WECAFC	Angel Gumy
14:30-14:45	Open microphone ¹	
14:45-15:00	Discussion and input from participants	
15:00-15:30	Refreshment break	
Translating information into policy advice (Moderator – Patrick McConney)		
15:30-15:45	The proposed science policy interface process for the CSC	Robin Mahon
15:45-16:00	The science policy interface	Franklin MacDonald
16:00-16:15	The Baltic Sea Commission system	Anders Alm
16:15-16:30	The Black Sea Commission system	Violeta Velikova
16:30-16:45	Open microphone ¹	Moderator
16:45-17:00	Discussion and input from participants	

¹ The open microphone period is an opportunity for organisations other than those presenting in the programme to share their views and perceived roles for 3-5 minutes, please let the moderator know if you would like to speak in this session.

Day 2 – Thursday July 8 th		
The information system to support the science policy interface (Moderator TBD)		
09:00-09:15	The proposed CSC information system	Robin Mahon
09:15-09:30	The ICOIN as a model to be adapted for information sharing in the Wider Caribbean Region	Paul Boudreau, IOI Canada
09:30-09:45	The Caribbean Marine Atlas	Ramon Roach, CMA Coordinator
09:45-10:00	The Association of Marine Laboratories of the Caribbean (AMLC) as an information source	Paul Sammarco, AMLC
10:00-10:15	Role of UNESCO-IOC/IOCARIBE in regional science and information	Lorna Inniss, IOCARIBE
10:15-10:45	Refreshment break	
10:45-11:00	Data and information management under the Cartagena Convention	Christopher Corbin, UNEP
11:00-11:15	Data and information components of the Caribbean Large Marine Ecosystem Project	Nestor Windevoxhel, CLME
11:15-11:30	Data and information management lessons learned in the Gulf of Honduras Project	Edas Munoz Galeano
11:30-11:45	Data and information management in the GEF Integrated Watershed and Coastal Area Management Project (IWCAM)	Donna Spencer, IWCAM
11:45-12:00	The role of the PANOS Institute in information sharing and networking	Jan Voordouw, PANOS
12:00-13:15	Lunch break	
13:15-13:30	Science and information capacity in Mexico	Porfirio Alvarez, G of M LME
13:30-13:45	Science and information capacity in Venezuela	Jeremy Mendosa
13:45-14:00	Science and information capacity in Cuba	Anna Maria Suarez
14:00-14:15	Science and information capacity in NGOs - TNC	Donna Blake
14:15-14:30	The INVEMAR experience with data and information management	Pilar Lozano
14:30-15:00	Refreshment break	
15:00-15:45	Open microphone ¹	Moderator
15:45-16:00	Discussion and input from participants	
16:00-16:30	Email and networking	

Day 3 – Friday July 9 th		
Facilitated working groups on topics		
09:00-10:30	WG 1: Governance architecture	Toney Olton (facilitator), Alexcia Cooke (rapporteur ²)
	WG 2: Science policy interface	Sharon Almerigi (facilitator), Shelly-Ann Cox (rapporteur ²)
	WG 3: Information system	Janice Cumberbatch (facilitator), Angelie Peterson (rapporteur ²)
	Refreshment break	
10:30-12:00	WG 1: Governance architecture	As above
	WG 2: Science policy interface	As above
	WG 3: Information system	As above
12:00-13:30	Lunch break	
Reports of working groups (Moderator – Robin Mahon)		
13:30-15:30	WG 1: Governance architecture	Group reporter
	WG 2: Science policy interface	Group reporter
	WG 3: Information system	Group reporter
	Panel : Mr Chris Corbin, Amb Andrade Falla, Dr Bob Glazer, Mr Franklin MacDonald, Dr Ana Maria Suarez	Panel discussion General discussion
15:30-16:00	Refreshment break	
16:00-16:45	Conclusions	Panel and organisers
16:45-17:00	Closing	Organisers

² For note taking only. Each group will select its own reporter(s) to report to plenary

APPENDIX 3: BREAKOUT GROUPS

Working Group		
<p>‘Regional marine governance and the roles of the key agencies’</p> <p>Facilitator: Toney Olton Rapporteur: Alexcia Cooke Group members: Andrade Falla, Luis Corbin, Christopher Fanning, Lucia Gomes, Charmaine Gonzalez, Mario Halmeranta , Hannele Haughton, Milton Luck, Emily Monge , Oscar Murray, Peter Phillips, Terrence Rudder, Winston Inniss, Lorna Smith, David Stare, Helena Ström, Ingmar Willoughby, Stephen Windevoxlhel, Nestor</p>	<p>‘Building a science-policy interface for ocean governance in the WCR’</p> <p>Facilitator: Sharon Almerigi Rapporteur: Shelly Ann Cox Group members: Agard, John Alm, Anders Alvarez, Porfirio Blake, Donna Cox, Nicholas Glazer, Robert Gumy , Angel Leotaud, Nicole McConney, Patrick McDonald, Franklyn Murdoch, Colin Rolon, Miguel Salazar, Cesar Shurland , Deirdre Stare, Helena Stokkermans, Paul Thomas, Anya Velikova, Violeta</p>	<p>‘The information system needed to support the science-policy interface’</p> <p>Facilitator: Janice Cumberbatch Rapporteur: Angelie Peterson Group members: Boudreau, Paul Coatonroch, Gaëtan Cherrett, Nia Franklin, Anthony Grant , Sandra Henderson, Scott Lozano, Pilar Mahon, Robin Mendoza, Jeremy Muñoz Galeano, Edas Ogden, John Perez, Manuel Roach, Ramon Sammarco, Paul Spencer, Donna Suarez, Ana Maria Sutherland, Michael Voordouw, Jan</p>

APPENDIX 4: THE PRESENTATIONS FROM THE BREAKOUT GROUPS

8.1 Breakout Group 1: Regional marine governance and the roles of the key agencies

Question 1: In your opinion what aspects of the proposals you have heard in the meeting seem feasible and beneficial in making the Caribbean Sea Commission more effective?

Overarching Response

- The approaches and proposals seem feasible for making the CSC more effective
- They present added value potential - should be presented in report

Common themes/threads that emerged

- CSC should be advisory but its recommendations should be considered for implementation as per national priorities
- Structured as proposed is workable but needs some modification; also national level inputs
- Coordination among existing formal bodies should be incorporated into the CSC framework
- There needs to be more information on the organizations and institutes and member state activities
- The interests and concerns of the stakeholders should be addressed from a bottom up approach

Conclusions reached

- Discussion has given valuable input to science-policy interaction and consensus on working together towards the central role of the CSC and the ACS.
- A legally binding arrangement should be proposed with special emphasis on where gaps and overlaps exist that could promote binding decisions
- Overarching - Recognition that the CLME governance framework is theoretically a good one

Question 2: In your opinion what aspects of these proposals would cause the most difficulty for implementation?

Common themes/threads that emerged

- Capacity constraints – financial, human
- Huge asymmetries e.g. cultural, that are creating conditions to constrain integration opportunities
- High transaction cost of working in different languages
- Weak existing communication mechanisms
- Caribbean Sea as a common shared resource
- Current composition of CSC may not be inclusive of all countries in the region and mechanisms for their inclusion are needed

- Need to better articulate the value added by the CSC - the gaps it will address, and mechanisms for cooperation so that would engender greater buy-in
- Current sub-commissions as established may limit implementation – need to address status, how they will be set up, how they would function, meet under themes

Key insights/surprises

- The process requires very careful planning
- Commitment must be obtained especially from governments for implementation

Conclusions Reached

- Must use existing mechanisms
- Need for resources – financial, human
- Clear plan of action/way forward
- Make us of existing studies, processes eg. SICA, EU

Question 3: From your perspective what aspects of these proposals would you change or improve to make the Caribbean Sea Commission more effective?

Common themes/threads that emerged

- Current function is to oversee and promote the sustainable use of the Caribbean Sea
- A legally binding instrument with consequences/sanctions would be needed to protect the resources of the Caribbean
- The Commission must be fully inclusive of States, regional organizations and territories
- Principle of subsidiarity – deal with those areas that cannot be addressed by existing organizations
- Seek to implement and work through existing organizations
- Define clearly, the roles and functions of the CSC and its sub-commissions ensuring clarity and transparency
- Address more clearly the connection between science, policy making and policy coherence
- Recommendations on sub-commissions:
 - The structure and function of the sub-commissions are vital to the success of the CSC
 - Must be able to operate flexibly
 - Can meet on themes (not as silos) e.g. agriculture, tourism
 - Can co-opt ad hoc expertise to deal with specific issues
 - Chairs of sub-commissions to be ex-officio on the bureau
 - Chairs of the SC submit a single joint report to bureau
 - CSC work is in the public domain, reports online, reports of meetings
 - ACS and the CSC to help bridge groups with similar mandates that operate across language and sub-regional areas
- Information and communication strategies required to address knowledge management and communication with the public, donors and members to help with budgeting and buy-in

Question 4: What would it take for you to buy into this overall process?

Common themes/threads that emerged

- Clear objectives are required for the CSC framework
- Clear benefits to be derived from participation in the process
- Consultation with member states is required
- Decision making process should be effective, efficient and inclusive
- Clear definition of values and responsibilities that includes stakeholders
- Report of this meeting should inform and influence further operationalization of the CSC
- SG of the ACS could participate in the annual decision making meetings of international and regional organizations
- The appointment of a focal point of the CSC at the ACS
- The CSC could make information linkages to all stakeholders
- Need for monitoring and evaluation process to determine achievement of objectives and ‘desired’ outcomes

Key insights/surprises

- Connectivity exists such that none of the 4 questions can be answered in isolation.
- No surprises

Conclusions Reached

- A lot of work to be done - Need to start ASAP
- Willingness to contribute by regional organizations and individuals
- Immediate need for resource mobilization
- ‘Budget sub-commission’ should be reconfigured as ‘resource mobilization sub-commission’
- ‘Legal’ and ‘governance’ sub-commissions should be merged into one
- Scientific and technical sub-commissions should be maintained

8.2 Breakout Group 2: The Science-Policy Interface

Question 1: In your opinion what aspects of the proposals you have heard in the meeting seem feasible and beneficial in making the Caribbean Sea Commission more effective?

Common Threads or Themes

- Examine other commission models from around the world (Legal and institutional structures; rules of procedures).
- Do not duplicate, use existing centres of excellence.
- Don’t be prescriptive, provide policy options, indications and consequences.
- Focal Sectors: Environment is a core focus group. It is a cross-cutting theme for all sectors.
- Agriculture should be considered as a sector.

Key Insights

- A strong communication strategy is critical (Identify “champions” for the sub-commissions).
- CSC needs a dedicated Secretariat (Daily staff and funding; feasibility of location and operation).
- Requires a Strategic Action Plan
 - Define trans-boundary issues: Regional, Sub-regional and National
 - Gap analyzes
 - Networks/Networking Structures
- Mapping and evaluations of projects and programmes to identify strengths, weaknesses and their effectiveness.
- Ensure that everything is done in a transparent manner.

Conclusions

- CSC needs a dedicated secretariat
 - Servicing FULL TIME the Sub-commissions
 - Funding for start-up

Question 2: In your opinion what aspects of these proposals would cause the most difficulty for implementation?

Common Threads or Themes

- A higher level of leadership oversight and overview responsibility.
- Communication- language and language disciplines being used.
- Tendency to be ‘reactive’ than ‘proactive’ at science and policy levels.
- Mechanisms needed to build consensus at national and regional levels.
- Sovereignty rights issues versus the greater good.
- Appropriate packaging of information for the various target groups whether policy makers or scientists etc.
- There is a need to bring in (fully engaged) the other sectors and stakeholders.
- Sub-commissions need to be fully functional to achieve the science-policy interface.
- Use the process of capacity analysis and strategic action to close and reveal gaps.
- Inadequate resource mobilization- expertise and money.

Key Insights and Surprises

- Surprised that the role of the media was not mentioned or discussed.
- It is surprising how many resources are available within the various groups that are not being used by decision makers.
- People need to be communicating and the message needs to be clear.
- Utilize the information we have and apply it.

Conclusions

- We need to find better ways to mine the data and make it useful to decision makers and scientists.
- Data-Use clear communication strategies including dissemination of information. This must be applied at all levels including ‘opinion makers and decision makers’.
- Commission and Sub-commission to be made fully functional with a properly funded and competent secretariat.
- Policy (decision) makers do not articulate policies clear enough to drive or challenge science.
- Re CSC Sub-commissions need to ensure that the governance, outreach and public information sub-commissions need to be functioning.
- There is not enough funding for an effective interface.
- Lack of resources and initiatives for resource mobilization.
- Lack of clear leadership at the national and regional level. Lack of defined need and support relationships.

Any other interesting observations

- Clear policy decisions/articulations to drive science. They (policy makers) need to have clear policy directions.
- Meta-data needs to be available to all scientific sectors.

Question 3: From your perspective what aspects of these proposals would you change or improve to make the Caribbean Sea Commission more effective?

Common Threads or Themes

- Structural arrangements require:
 - Secretariat for CSC,
 - Advisory committees

Key Insights

- Strategic Action Plan (ASAP)
- Regional work builds on national achievements in linking science and policy

Conclusions

- Secretariat for the CSC with outreach facilities.
- Sub-committee on Governance outreach public information to be strengthen.
- Secretariat to start small and grow.
- Linkages between commission and national actors to be strengthen.
- Two way street between scientist and policy makers.
- Strategies and networks of expertise and institutions (inventory).
- Establish position of Chief Scientific Advisor.

- Standardization and harmonization of data management and reporting.
- Key decisions of commission to be implemented by countries and legal documents ratified.
- Strategic Action Plan
- Policy briefs/Summary for policy makers.
- Bring value added to policy making (Packaging and presentation of policy-relevant information).
- CSC should assist countries to link Governmental policy and science at local level.
- Overlap analysis between different programmes.
- Access to policy makers strengthened to boost implementation at the national level.
- Advisory groups on specific topics consisting of both policy makers and scientists.

Question 4: What would it take for you to buy into this overall process?

Common Threads or Themes

- Structures and processes for strong communication and participation at all levels.
- Promotion via “success stories”.
- Good governance within CSC.
- Endorsement of science through networks, participation.
- Region-wide responsiveness to stakeholder needs is evident.
- Respected leaders involved both individuals and organizations.

Key Insights and Surprises

- Turf protection by international agencies may constrain CSC.
- “Policy makers” at ALL levels must be bought-in.
- Communication is key.
- “Science” and “policy” are abstract so focus on people and practices.

Conclusions

- There are many challenges ahead.

8.3 Breakout Group 3: The information systems needed to support the science-policy interface

Question 1: In your opinion what aspects of the proposals you have heard in the meeting seem feasible and beneficial in making the Caribbean Sea Commission more effective?

Common Themes

- Platform for data and info gathering, interpretation
- Combination of system approaches (search engine, web, snail mail)
- Graphic component/ Display
- CSC does not have to be central repository (Meta-data)
- Linkages between institutions, study to identify gaps and overlaps

- Low learning curve and open access
- Information pathways to and from communities
- Redundancy for critical information
- Help cross-sectoral fertilization
- Alert mechanism to allow policy makers to identify future issues
- Reliable way to access historic and future information and data
- Host “node” should be durable institution with dedicated persons
- Cover multiple themes (spatial, political, social, biological, etc.) and institutions (NGOs, government, etc.). Data and institutional info
- Sustainably funded
- Build / Start simple
- Dynamic, flexible, updatable system

Key Insights/Surprises

- Distributed System
- Redundancy
- All types and levels of data, information, and data sources
- Simple and easy to use

Conclusions

- Identify and define human, financial, and technical sources and resources
- Study
- Stakeholders, data, end users, hardware
- Constituency and its priorities need to be defined (incl. policy makers)

Observations

- Lack of clarity of CSC function limits, our ability to design information system

Question 2: In your opinion what aspects of these proposals would cause the most difficulty for implementation?

Common Themes

- Lack of government agreements and will for sharing information, because of lack of trust/sovereignty, fear of implications of sharing. Political barriers
- Finances to develop system and sustain it. Team of people needs to be financed. International organizations (extra-regional) needed. Credibility established
- Different capacities (human & technical) of countries to implement IT systems, different knowledge. Appropriate levels to be elaborated for different countries
- Information gaps in the region on certain subjects and geographic areas
- Fragmentation of activities, lack of coordination

- Information system must be original/attractive, managed by CSC but based on existing experiences
- Cooperation between all sources of data established, in participatory way - takes time and trust - organizations and countries need to adjust their ways - continuity to be ensured - traditional knowledge.
- Standardization and harmonization of data collection and storage formats
- Include not only scientific data; also social, economic, legal data
- Respect of institutional and political realities - use of appropriate channels.

Key Insights/Surprises

- Engagement: credibility, leadership, commitment
 - Sustainability
 - Capacity building component: to contribute to access
 - Comprehensiveness: of types of data
 - Harmonization & standardization

Conclusions

- It is difficult to:
 - Consider all frameworks: social, economic, political, geophysical, geochemical, traditional
 - Be demand driven, reactive to policy/science interface
 - Be useful, system should be marketed
 - Ensure a system of data & information sharing is systematic/consistent but also flexible/versatile to new needs
 - Ensure continued capacity in institutions
 - Effect a permanent strengthening process

Observations

- Details of presentations by organizations were not utilized, we kept the general level
- Information system needs to be considered in entire structure of CSC
- Authority of sources of data, competence needs to be clarified and requests for data should follow rules

Question 3: From your perspective what aspects of these proposals would you change or improve to make the Caribbean Sea Commission more effective?

Common Themes

- CSC should promote capacity building within its member countries to fill information gaps (equitability/access)
- Public relations - CSC must be recognized (publicized) in the region
- There must be regional opportunity for data analysis and standardization

- Countries which have bought into the CSC vision must work to support robust initial funding
- CSC has mechanisms to bring people together, but they are not being used effectively
- CSC must insure the participation of agencies / countries with capabilities in the region
- CSC will need a regional coordinator to negotiate MOUs with other regional organizations.
Legally defining cooperation
- CSC should align policy at all levels and across disciplines to share information
- CSC should have a central operations center run by an interdisciplinary team for access and data management
- CSC data should be responsive to themes important to policy makers
- CSC must recognize the importance of traditional knowledge and that CSC is an indigenous tool
- CSC information has economic benefits that should be made known

Conclusions

- CSC must be a relevant service to:
 - the countries of the region
 - policy makers and their priorities
 - economies
- CSC needs to establish a legal framework between participating parties to ensure success of its mission via the generation and exchange of informational data
- Public relations and communication are critical to CSC, particularly with respect to benefits
- Equitable access to data is key to success of CSC and will require capacity building in various participating countries
- Substantial funding is critical to initiation and continuation of the CSC and its mission. The CSC must identify its funding sources
- Ensure that networking is effective across all participants - including countries and agencies
- CSC must align policy between its participants to ensure information transfer at all levels and across disciplines
- A central operation node with a multi-disciplinary team should manage this
- CSC should utilize information desired from national or regional indigenous sources

Question 4: What would it take for you to buy into this overall process?

Common Themes

- Potential users (for all sectors of society) to be convinced of benefits of information system which need to be clearly identified and articulated
- Understanding due to effective promotion and marketing of system
- Cooperating agency (CSC) must not be competing for technical and financial resources with MY organization
- Affordable participation costs / appropriately scaled financially

- Inclusive
- Sustainable - Financial and other resources
- Provision of products and services relevant to policy making decisions
- Brings together information from different sources to address synergies
- Transparency
- Stressing socio-economic value of data and information would drive home necessity of information system
- Details of best practice, application of best practice, and lessons learned for communicating with wider stakeholder community
- Country level buy-in more likely if benefits to developing own information system seen
- Accurate & robust
 - Builds confidence in system
 - User friendly
- Multilingual

Key Insights/Surprises

- *BENEFITS*
 - Articulated
 - Tangible
 - Effective decision making
- *TRUST*
 - Transparency
 - Confidence
 - Reliability
 - Accuracy

Conclusions

- For buy-in to take place all key factors (i.e. demonstrable benefits, instilling of trust, high accessibility and provide opportunities for capacity development) need to be accounted for.
- This will only happen if information system is developed and promoted as such.

Observations

- Clear Objectives - Primary and secondary users
- Design of system must meet needs of MULTIPLE USERS