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Committee on the Peaceful Uses of Outer Space

Unedited transcript

544th Meeting
Wednesday, 15 June 2005, 10 a.m.
Vienna

Chairman: Mr. A. A. Abiodun (Nigeria)

The meeting was called to order at 10.16 a.m.

The CHAIRMAN: Good morning distinguished delegates and representatives. I now declare open the 544th meeting of the United Nations Committee on the Peaceful Uses of Outer Space.

This morning we will resume our consideration of agenda item 7, that is Report of the Scientific and Technical Subcommittee on its Forty-Second Session. And at that time, we will hear a progress report from the Chairman of the Working Group on Space Debris of the Scientific and Technical Subcommittee on the Working Group's intersessional work.

We will also continue our consideration of agenda item 9, that is Spin-off Benefits of Space Technology: Review of Current Status, as well as agenda item 10, that is Space and Society.

Thereafter, we will continue our consideration of agenda item 6, Implementation of the Recommendations of UNISPACE III.

We will also begin our consideration of agenda item 11, Space and Water, as well as agenda item 13, Other Matters.

At the end of this morning's meeting, there will be a technical presentation by Mr. Richard Bräucker of Germany and the title of his presentation is "DLR School Labs – How to Enhance Interest in Space Sciences".

May I take this opportunity also to inform delegates that the Working Group on Space Debris of the Scientific and Technical Subcommittee is currently holding its interesessional meeting in Conference Room VII.

And similarly, the Working Group on the Use of Nuclear Power Sources in Outer Space of the Scientific and Technical Subcommittee is equally holding its intersessional meeting in Room C-0713.

Distinguished delegates, that is the schedule of our work for this morning. Do you have any comments from any interested delegation?

Report of the Scientific and Technical Subcommittee on its forty-second session (agenda item 7)

If none, distinguished delegates, I would now like to resume our consideration of agenda item 7, that is Report of the Scientific and Technical Subcommittee on its Forty-Second Session. And we are now ready to hear the report by the Chairman of the Working Group on Space Debris, Mr. Claudio Portelli of Italy, on the ongoing interesessional meetings of the Working Group.

Mr. Portelli, you have the floor.

Mr. C. PORTELLI (Italy): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, please allow me to provide you with a progress report on the work of the intersessional meeting of the Working Group on Space Debris of the Scientific and Technical Subcommittee.

The Working Group began its intersessional work on 13 June and they are expected to work until 16

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June, in accordance with the decision reached by the Scientific and Technical Subcommittee at its forty-second session which took place in Vienna from 21 February to 4 March this year.

You will recall that the Scientific and Technical Subcommittee has also agreed that the Working Group should develop a document on space debris mitigation which, among other considerations, would use as a basis the technical content of the Inter-Agency Space Debris Coordination Committee, the IADC, Space Debris Mitigation Guidelines, which is document A/AC.105/C.1/L.260. This document would not be legally binding under international law. It would take into consideration the United Nations treaties and principles on outer space.

I would also like to mention one more important agreement of the Working Group endorsed by the Scientific and Technical Subcommittee. In accordance with it, the Subcommittee will continue to consider the item of space debris in accordance with the new multi-year Work Plan covering a period from 2005 to 2007. The work under this item will be to consider the practice of States in space debris mitigation and to prepare a document on space debris mitigation to be presented for consideration by the Scientific and Technical Subcommittee at its forty-fourth session in 2007.

On Monday, the Working Group agreed on the agenda of its intersessional work. In accordance with such agenda, the Working Group had before it the following tasks.

First, discussion of the working of the IADC on its Space Debris Mitigation Guidelines.

Second, review of the proposals received from the Member States for a document on space debris mitigation to be developed at the Working Group on Space Debris.

Third, finalization of an index of the space debris document.

Fourth, drafting of a space debris mitigation document.

Fifth, discussion and dates and agenda of the next intersessional meeting of the Working Group on Space Debris.

And last, chairmanship of the Working Group.

I am pleased to inform you that as of this morning, the Working Group has already successfully accomplished most of the above-mentioned tasks and, at this moment, is preparing a draft document on space debris mitigation.

The proposal received from France, Germany, India, Japan, the United Kingdom, the United States of America and the European Space Agency, ESA, have served as the basis for a draft of the document on space debris mitigation. The proposal received are contained in Conference Room Paper A/AC.105/2005/CRP.8 and Corrigendum 1 and Addendum 1 and circulated to the Committee.

The representatives of the following Member States and international organizations and observers are taking part in the intersessional meetings of the Working Group: Argentina, Brazil, Canada, China, Czech Republic, France, Germany, Greece, India, Italy, Japan, Russian Federation, United Kingdom, United States of America, European Space Agency, ESA, and the Space Generation Advisory Council, SGAC.

The Working Group is expected to finalize its work on 16 June. At that time, I will again deliver a report on the results of its intersessional meeting to the Committee.

Thank you Mr. Chairman.

The CHAIRMAN: Mr. Portelli, on behalf of the Committee, I want to thank you and your Working Group on Space Debris for the excellent work you have done during these intersessional sessions and we hope when you continue you will be able to finalize your work as much as possible at this session and report finally back to us later.

Anybody with any comment, any delegation with any comment on Mr. Portelli's presentation?

I see none.

Distinguished delegates, we will suspend our consideration of agenda item 7, that is the Report of the Scientific and Technical Subcommittee on its Forty-Second Session, pending the final reports by the Acting Chair of the Working Group on the Use of Nuclear Power Sources in Outer Space and the Chair of the Working Group on Space Debris, Mr. Portelli, on their ongoing intersessional meetings.

Spin-off benefits of space technology: review of current status (agenda item 9)

Distinguished delegates, I would now like to continue our consideration of agenda item 9, Spin-off Benefits of Space Technology: Review of Current Status.

Do I have any interested delegation wishing to take the floor to address this subject, since I have no indication in the paper before me that any delegation has signed up to speak on it?

If there are no delegations wishing to speak on agenda item 9, may I take it, distinguished delegates, … Professor Cassapoglou of Greece, you have the floor.

Mr. V. CASSAPOGLOU (Greece): Thank you Mr. Chairman. Good morning to everybody. Apropos of this agenda item, I would like to repeat a little bit formally what I said yesterday concerning first the effort for supporting, on an institutional level, of supporting the Office's activities on the Space Applications Programme. And the idea is to establish a very small, a few, three, four maximum, persons to prepare a document, in order to be submitted to the Scientific and Technical Subcommittee next February, seeing how to or the reinforce, on the institution level, as well as on the resources, human and financial, of the Space Applications Programme. That is *grosso modo* the idea of my delegation.

And then we have developed some other ideas and ask, through you, the delegations for their reaction. The idea is to establish a very small, let us say, working group, committee. It is not important what the title will be. But in any case, to prepare a document on how to reinforce and help the Space Applications Programme and also the Expert on Space Applications to contribute to the dissemination of space spin-off to the especially developing countries.

On that occasion, I would like also to reiterate my proposal, which is _____ *(not clear)* with the agenda item in the Legal Subcommittee report for the circular or the letter I said yesterday to the States not yet being Parties to the five treaties, why and how they can proceed on that very important decision saying that it is not necessary to be a space-faring nation but any nations need to be Parties to these treaties.

Thank you very much Mr. Chairman.

The CHAIRMAN: Thank you Professor Cassapoglou for that statement. First, on the spin-off and on your proposal to produce a document by the Office and so on and so forth, maybe it might be appropriate if I invite either the Director of the Office or the Expert to reflect on this.

Mr. S. CAMACHO-LARA (Office for Outer Space Affairs): Thank you Mr. Chairman. We could work with the, what I would suggest is the following(?), this small group is going to be formed that they might include the Office so that the experience on implementing different elements was available to this small group of people and with a meeting about when the report would be carried out and how we might be working, would it be that the group of people get together or would we begin with on Internet. We would have to exchange a number of thoughts and proposals and drafts and so on. So these would be the two elements that we, from the Office, would like to consider when discussing the proposal.

Thank you Mr. Chairman.

The CHAIRMAN: Thank you Dr. Camacho. Dr. Camacho and Professor Cassapoglou, can I take it then that we are talking about experts from countries that are actually highly active in space activities and who can then, and if you have something to contribute in the area of spin-off, and the question then is do we ask for volunteers or do we select people, whatever, I do not know. We need to do that, we need to arrive at that conclusion before we adjourn this session if what we are proposing is to be carried out. So what is your proposal for getting that Expert Group together?

I see Mr. Ken Hodgkins of the United States asking for the floor. You have the floor Sir.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. Mr. Chairman, I have no objection to the proposal for an Experts Group to look at the Space Applications Programme. I would be much more comfortable, however, with the proposal that we saw something in writing perhaps and we had identified before we leave the person that will be responsible for organizing this exercise. I say that because it is not entirely clear to me that the Office for Outer Space Affairs will have the time and the resources to be Coordinator for this particular group. Unless, of course, the Office feels differently. I would suggest that if there is to be an Experts Group, there has to be a Coordinator identified before we leave and then the members of that group, if possible, identified before we conclude this meeting and that it is understood that the Office is playing more an advisory role as opposed to a coordinator role, unless, of course, the Office feels strongly about the role they want to play. I would leave that up to them. But my impression in looking at the work we have asked the

Office to do as a result of our Scientific and Technical and Legal Subcommittees meetings, that they have a fairly full plate over the next year so I would hate to see this exercise become a burden as opposed to a positive exercise.

So, with that said, Mr. Chairman, perhaps over the next day or two a paper could be produced. We could agree on the modalities and then identify a person who will be the Coordinator for this Experts Group.

Thank you.

The CHAIRMAN: Mr. Hodgkins, thank you very much. Professor Cassapoglou, just a second, I am not calling you to speak yet. Professor Cassapoglou, Mr. Ken Hodgkins, any interested delegation and the Office, can I request the three of you and other interested delegations to assist the Committee on this assignment and proudly come with a paper tomorrow for us to look at with, as indicated by Mr. Hodgkins, a clear indication of who the Coordinator will be, other than the Office. I will invite the Office to react. Thank you.

Mr. S. CAMACHO-LARA (Office for Outer Space Affairs): Thank you Mr. Chairman. I take the view, I agree very much to the proposal made by the United States. We are going to have a very full load between now and the next Subcommittee. And at the same time, if the paper is going to be established, we would like to be involved in it so that we could provide the experience that I mentioned a little while ago.

Thank you Mr. Chairman.

The CHAIRMAN: Thank you. Professor Cassapoglou, you are satisfied with this agreement?

Mr. V. CASSAPOGLOU (Greece): Absolutely. Thank you very much and also the United States colleague for his support. Thank you.

The CHAIRMAN: Thank you very much. Pending the submission of that paper tomorrow, can we suspend our consideration of agenda item 9, Spin-off Benefits of Space Technology: Review of Current Status?

Space and Society (agenda item 10)

Distinguished delegates, I would now like to continue our consideration of agenda item 10, Space and Society.

And the first speaker on my list is the distinguished representatives of the United States, Mr. Higgins. Mr. Higgins, you have the floor.

Mr. J. HIGGINS (United States of America): Thank you Mr. Chairman. My delegation is pleased to address the special theme of "Space and Education" at COPUOS. We acknowledge the important role of space education for inspiring students to pursue careers in science, technology, engineering and mathematics; to increase the number of professionals entering those fields; to strengthen national capabilities in the fields of science and industry; and to enhance educational opportunities using satellite-based tele-education and e-learning.

The United States Civil Space Programme continues to emphasize the importance of space to education and education to space. One of our top priorities is to expand the science, technology, engineering and mathematics pipeline in the pre-college grades and to increase the science, technology, engineering and mathematics workforce in the post-secondary grades. As an example, let me highlight several NASA programmes. In an effort to meet its pipeline and workforce needs of the future, NASA is implementing two national education initiatives: the Educator Astronaut Programme and the Explorer Schools Programme. It is also working towards engaging the informal community through its NASA Explorer Institutes initiative.

Through the NASA Educator Astronaut Programme, some of the best teachers in America are being given an opportunity to become permanent members of our Astronaut Corps. With the leadership of these Educator Astronauts, we will be able to better utilize the International Space Station for space science experiments created by students and build connections between science at work and science in school. One feature of the Educator Astronaut Programme is the "Earth Crew", an on-line component accessible through the Programme's website, which is edspace.nasa.gov. It is open internationally to encourage school classes, families and private organizations to be actively involved with NASA.

The NASA Explorer Schools Programme selects 50 school teams from grades four to nine for a three-year partnership with NASA. This partnership aims to promote ongoing professional development for educators and administrators and to create family involvement through electronic and website-based opportunities. The NASA Explorer School Programme targets underserved populations in diverse geographic locations throughout the United States. On 16 May of

this year, NASA announced 50 new NASA Explorer Schools to bring the total number of schools to 150. NASA Explorer Schools are now in all 50 States, Washington D.C. and Puerto Rico. In this regard, we are very pleased to note that NASA, the European Space Agency and The Netherlands Ministry of Education, Culture and Science entered into a written understanding to establish the Delta Research Schools Programme in The Netherlands. The Delta Research Schools Programme is patterned after the NASA Explorer Schools model and selects 15 schools throughout The Netherlands for a three-year partnership. The first 15 Delta Researcher Schools are expected to be announced this month.

Another primary initiative for NASA is the NASA Explorer Institutes, which is a national programme designed to engage the informal education community, provide instructional materials and resources for use at their home institutions and serve as professional development opportunities for informal education professionals across the nation. Ultimately, this initiative will engage the public in shaping and sharing the experience of exploration and discovery. The Institutes, located at NASA Centres and informal education venues across the United States, will represent partnerships among NASA, Space Grant Institutions, associations, community-based organizations, museums, science centres and planetariums.

The United States continues to work with foreign partners in developing global capacity in the space and technology field, particularly in the remote sensing area. As you may recall from our special presentation last year, the GLOBE programme continues to be an excellent example of a worldwide student-teacher-scientist partnership that has continued to grow and prosper. GLOBE is an exciting hands-on, school-based, international environment science and education programme. Now in its eleventh year, GLOBE has trained over 26,000 teachers in more than 15,000 schools in 107 countries and they train them to use GLOBE in their classrooms. Students have provided data from over 12 million measurements on the GLOBE database, which is accessible on the World Wide Web. In 2005, for the first time, the GLOBE Annual Conference will be held outside of the United States. The Czech Republic, one of the most active GLOBE partners, will be hosting the Conference in Prague from 31 July to 5 August, celebrating the tenth anniversary of the Programme's international implementation by returning to the site of the first GLOBE International Training Workshop, which was held in Prague in April of 1995. Without question, GLOBE continues to be an excellent example of the interplay between space and education, done on an international scale, and tailored to the needs of the participating countries.

In an effort to enhance education and public outreach, the NASA Education Portal has been recently revised and it is hoped that this electronic resource and other such e-education activities will help inform the public around the world about the wide array of NASA's educational programmes. Three major sections of the NASA Portal feature information specifically for educators, students and children. NASA's unique research and array of missions permit the production of educational materials that educators and parents can use to engage student interest in science, technology, engineering and maths, and the NASA Office of Education is continuing to explore ways in which it can most effectively and efficiently disseminate this information. We encourage all Committee members to visit the NASA Portal at www.nasa.gov and NASA's education Internet site at www.nasa.gov/education.

A likely challenge to using the unique environment of space to inspire students to study science and technology in all nations is the availability of resources. NASA continues to welcome opportunities for international collaboration where resources can be leveraged and when collaboration supports NASA's education strategic goals and objectives.

Mr. Chairman, I have presented a number of examples of ways in which my country is working hard to inspire the next generation of explorers and to strengthen our nation's educational posture by using content, materials and applications unique to space activities. We look forward to sharing many more ideas and experiences with the Committee and to learning more about the successes achieved by other member nations.

Thank you Mr. Chairman.

The CHAIRMAN: I thank you Mr. Higgins for that contribution on agenda item 10.

The next speaker on my list is the distinguished representative of the Ukraine, Ms. Zubach. Ms. Zubach, you have the floor.

Ms. N. ZUBACH (Ukraine) *(interpretation from Russian)*: Thank you Mr. Chairman. Let me, on behalf of the delegation of Ukraine, pay tribute to you and assure you that we are certain that this forty-eighth session of the Committee will be successful.

Mr. Chairman, under this agenda item, I would like to note that the education system of Ukraine in the area of space activities is well-developed but clearly divided into two main branches, scientific and technical education and legal education. In 1996, the National Space Agency of Ukraine set up a National Centre for Aerospace Education for the young people of Ukraine. This Centre has focused on the search for and support of gifted youth, enhancing scientific and technical creativity and training a new generation of the country's elite scientists in the area of space exploration. The Centre works with high school students, college students, young scientists, conducting both in-class and correspondence courses. The Centre has its own laboratory for rocket design simulation and students annually take part in contests in Ukraine and internationally. They also take part in exhibitions of children's and youth creative work and international contests in rocket model design.

The Centre also has an aerospace museum which is a permanent exhibition of scientific technology. The Centre has developed a number of educational manuals on such subjects as the mechanics of variable mass bodies, scientific research in space, foundations of space technology, space biology and medicine and others.

In 2001, the agreement between the National Space Agency of Ukraine, the Russian Space Agency, the National Academy of Sciences of Ukraine and the Russian Academy of Sciences, dating from 1998, led to setting up an International Space Law Centre in Ukraine. This Centre promotes the development of national space law and research into legal matters pertaining to the space activities of Ukraine, the Russian Federation and other Member States of the Commonwealth of Independent States involved in space activities for peaceful purposes. The Centre has a number of post-graduate students who attend courses on international space law, national legislations, commercial aspects of space activities, the environment and space and the role of the United Nations system in developing international space law, as well as a host of other subjects.

Ukraine also has what it calls a minor Academy of Sciences which has developed a number of educational programmes, recently jointly with the United States of America. Furthermore, Ukraine trains specialists in such areas as rocket technology, space exploration, outer space law. Those courses are read at the Kiev Polytechnic Institute, the Department for Aerospace Systems at the Physical and Technical Institute at the Dnepropetrovsk University, the Kharkov(?) Aviation University, the Kiev National University, named after Theros(?) Shevchenko(?), the Uzhgorod University and the National Aviation University.

Mr. Chairman, in addition to the above programmes, Ukraine's youth are involved in applied work. Having analyzed the transit(?) and the development of rocket technology in Europe, Asia and the United States, Ukraine's National Space Agency made the decision to start a project entitled "Ukrainian Youth Satellite", UMS-1. This project was included in Ukraine's national space programme. At the moment, work is underway on a pilot project and an applied research programme for the use of data transmitted by the Youth Satellite, by the end of 2005, working documentation will be developed and man-based adjustments will be completed for the satellite. The project involves students from various universities and colleges around Ukraine as well as young researchers and engineers throughout the country. The project has a lot to do with enhancing the industry's image and we are very successful in pursuing that objective.

Recently, a number of countries have these youth designed and operated satellites and we think it would be a good idea to have an international conference to discuss matters pertaining to these programmes. Ukraine has great experience of hosting international conferences and seminars and we would be prepared to host such an event.

Thank you very much.

The CHAIRMAN: I thank the distinguished representative of Ukraine, Ms. Zubach, for your presentation.

I now invite the distinguished representative of India, Mr. Radhakrishnan, to address this Committee on agenda item 10.

Mr. D. RADHAKRISHNAN (India): Thank you Mr. Chairman. Mr. Chairman, the Indian delegation considers selection of space and education as the special theme for the focus of discussions under agenda item "Space and Society" as highly appropriate. Illiteracy and lack of proper education continue to be the perennial problems for developing countries. This was the reason why we emphasize, and documented in the Vienna Declaration, that action should be taken to promote literacy and rural education by improving and coordinating education programmes and satellite-based infrastructure.

The United Nations Millennium Declaration also emphasized and stated that providing education and training opportunities to all the people is fundamental to economic, social and cultural development and to poverty eradication.

Mr. Chairman, the Indian delegation will brief in this statement the latest developments in India in the area of space applications to enhance educational opportunities, especially covering three new application programmes, that is tele-education, tele-medicine and village resource centres.

ISRO launched an operation last year, an exclusive satellite meant for educational purposes, named as EDUSAT. The satellite is configured with extended C-Band and Ku-Band transponders, to enable distance education networks. A few of the educational networks have already come into operation in different States in India. One hundred and twenty-nine colleges in the State of Karnataka are connected through a network and forty engineering subjects are being covered through this network in the current semester.

In the State of Karnataka, this also comes to be a similar network to connect all the medical colleges for covering certain specialized courses and for conducting continuing medical education programmes. Eight hundred and eighty-five primary schools in the State of Karnataka are operating in a network. The curriculum-based education is being imported through this network, including the syllabus and the school timings. Certain schools in remote areas where electricity is not available are provided with solar-powered reception systems in the network.

Two more networks with 100 terminals, each will be operational by this month end which will be operated by the Central Institute of Educational Training and National Council for Educational Research and Training. Primary, secondary and college teachers will be provided training to these networks. Seventeen educational networks, covering about 1,300 nodes are expected to be commissioned by the end of this year, covering the States like Punjab, Rajasthan, Bihar, Uttar Pradesh, Orissa and North-East India. The networks are designed and are being realized in a constructive manner.

Mr. Chairman, further progress is achieved in the last one year in the satellite-based tele-medicine projects. Today, a total of 113 hospitals are covered in these projects. Eighty district and rural hospitals are connected with 25 super speciality hospitals in the present tele-medicine networks. The network also caters to seven mobile stations. The remote and inaccessible areas, like North-East India, Andaman and Nicobar Islands, have given emphasis in these projects. So far, more than 50,000 medical consultations have taken place using the network. Our recent experience showed that these tele-medicine nodes are very effective in providing service during natural disasters also.

Mr. Chairman, to provide space-based services to the rural areas, ISRO initiated a programme to set up village resource centres in partnership with NGOs, trusts and concerned States and some government agencies. The village resource centres have envisaged a single window delivery mechanism for a variety of space-based services, such as tele-education, tele-medicine, information on natural resources, for planning developmental activities at local level. The requirements of local areas, like information on agriculture, fisheries, land and water resources management, livestock management and local weather information, will be addressed through the village resource centres. The first three village resource centres have been set up in the State of Tamil Nadu, in association with MS Swaminathan Research Foundation. Fifty more village resource centres will be set up in the coming months in the States of Kerala, Karnataka, Orissa and Jharkhand in association with the deemed universities, Educational Trust and NGOs involved in philanthropic activities.

It is proposed to set up at least 100 village resource centres across the country by the year 2006.

Mr. Chairman, India also contributes to the development of human resource in space science and technology in the Asia-Pacific region and to ensure the availability of professionals in space-related areas for the future. This task is carried out through ISRO's programme called SHARES and the United Nations Regional Centre for Space Science and Technology Education for Asia and the Pacific, operating from India. The activities and the details of the Regional Centre are covered in a separate presentation in the current session.

Mr. Chairman, the requirements and the scope to provide distance education through satellites are enormous in India and ISRO contributes to meet the national challenges in education through its space systems and applications programmes.

Mr. Chairman, in the context of agenda item number 10, Space and Society, the Indian delegation would like to present a short video clip depicting the role that space technology has played towards society's benefit.

Thank you Mr. Chairman.

Video

"Over the past four decades, India has established for itself, space-based telecommunication and remote sensing systems. But it always believed that merely creating space assets was not enough unless end-to-end projects are undertaken to demonstrate the efficiency of space-based systems. But this approach, ISRO was involved, not only with development of launch vehicles and satellites, but undertaking all steps in a communication experiment, including generating need-based appropriate content for rural masses.

The guiding philosophy was to use the most advanced cutting-edge technology for the benefit of the last child, woman and man of the country.

ISRO conducted the Satellite Instructional Television Experiment, SITE, the biggest techno-social experiment in the world in 1975. The barriers of distance and remoteness were bridged in one giant step.

SITE aptly demonstrated the feasibility of reaching out to rural areas using satellite technology.

Special programmes on science for rural children were an important element of SITE.

Along with SITE came the Kheda Communications Project, KCP, aimed at local rural development communication. Driven by the concept, think globally, act locally, the project established new dimensions in participatory communication.

Communication research was made an integral part of the project.

KCP brought out the need to use local formats.

Unique experiments in the field of content generation were the hallmarks of the Kheda Communications Project. Backed by over 15 years of experience in rural communication, we set out on an even more challenging task of going to a remote tribal district described as one of the most backward districts, Jhabua.

Jhabua Development Communication Project, JDCP, from 1996 onwards, a satellite-based communication system, was initiated in one of the most challenging environments. It was a daunting task but had to be undertaken. Satellite-based communication was most appropriate in a habitation of this type.

Experience has indicated that communication should address the needs of the people and be in a language and format acceptable to them. This needed research and interactions with the audience and the involvement of the audience in the design and concept of the programme.

A variety of formats were tried out. Throughout the process of programme production, the emphasis was given to local language, dialects, making programmes in the field itself, on actual location, exploiting local culture, songs, dance, drama, puppets, etc.

Programmes had to be entertaining, visually rich, and had to have the local flavour. Local writers, artists, musicians and experts were encouraged to participate in the programmes. Most programmes were in the participatory format where local people could participate to present their own issues and concerns.

Special sets of programmes were made on literacy, combining drama with literacy modules and synchronizing with illiteracy classes in different habitats.

Drought was a major problem and special programmes were mounted on water harvesting and forestry protection.

Broadcasting has its advantages but has limitations of being one way. Jhabua set out not only to talk but also listen to the people using the high-end space-based interactive training programme from 12 different locations on a regular basis.

Satellite technology helped to bring in latest information and made it possible for the people to interact with high officials through the satellite-based interactive system, discuss issues and get immediate answers. Detailed evaluation studies were carried out at different stages of the project. The project found that nearly one-third of the viewers were exposed to any mass media for the first time. There was a distinct gain in knowledge, progress towards attitudinal change for education, literacy, ill-effects of excessive drinking.

Experiments in India have amply demonstrated the efficacy of space-based systems in

carrying information and education to the last man in the hinterland but this needs not only the creation of hardware infrastructure, but of people-oriented participatory utilization mechanisms.

Thank you.

The CHAIRMAN: I thank the distinguished delegate of India for that contribution to our agenda item 10 on space and society.

I now invite Ms. Lourdes Palacios, the distinguished representative of Cuba, to address this Committee on the same agenda item. Ms. Lourdes, you have the floor.

Ms. L. PALACIOS (Cuba) *(interpretation from Spanish)*: Mr. Chairman, we would like to thank the Committee for offering us the opportunity to tell you about some experience in my country and that in relation with such an important question as education and its links with space.

But thinking of our national hero, José Martí, to have culture, to have freedom, was behind decisions of our Government since the very first moments of the revolutionary triumph in 1959.

One, education in Cuba is free, at all levels, from pre-school right up to university.

Two, in 1961, the national campaign that was developed against illiteracy eradicated that problem from our country.

Three, education is compulsory up to ninth grade and all students have guaranteed continuation of their technical and higher studies.

Our country has many polytechnic institutes and universities and that in all provinces. And, as of a few years, we have also had university branches in all municipalities so that our young people can continue their studies no matter where they live.

These times, the main priority has been to expand and deepen the cultural level of our population so as to have true comprehensive education. Thus, we have had two new television channels opened, educational channels. These have specialized programmes. The various educational programmes include language classes where English, French, Italian and Portuguese have already been offered.

With the various significant courses that have been offered on television, we have a basic modern science environment, meteorology and astronomy and others.

All primary and secondary schools in my country have television sets and video recorders so that students can go further beyond the content through television-offered courses. Schools that are in remote areas have solar panels installed and that so that there can be electricity in these remote schools. And in all municipalities of the country, we have specialized centres with computer clubs so that children and young people can go there to learn that science.

These are examples as to how my country is fostering education of our young boys, girls and all youth without any exception.

And now I would like to look at the links between these activities and children's knowledge on space. In Cuba, we have had the different space weeks with various activities involving movies, videos and astronomy observation as well as the national workshops on space and its peaceful uses already in the fourth programme. And linked to these weeks, we also have the few planetariums in the country open and the Astronomy Club also does extra work and that in the Palacio de Pioneros Ernesto Che Guevara.

We have programmes for a half year or a semester in these Astronomy Clubs attended by young people who have shown interest in this science in the schools and it is all done on a rotation basis so that as many people as possible can have access to this extra-curricular study. There are already hundreds of young boys and girls who have attended.

Mr. Chairman, Cuba has close cooperation for educational activities with other countries that have required our modest help. Cuba has a programme for medical studies for many countries, under-developed and developing, and that in our Latin American Medical School. Young people who study there have free preparation offered by the Cuban Government.

Cuba has close cooperation with Venezuela and joint programmes have been developed in order to fight illiteracy in that fraternal country with very positive results.

In Haiti, my country developed a radio-based literacy programme that showed exceptional results.

Cuba, co-sponsored, together with several Latin American countries, led by Venezuela, the Tele-Sur channel, that will give a view of Latin America

offered by Latin Americans and that to strengthen the culture of our peoples.

Mr. Chairman, may these thoughts help to confirm that, in spite of all difficulties, a better world is indeed possible.

Thank you.

The CHAIRMAN: I thank the distinguished representative of Cuba for her statement on agenda item 10.

And I invite Ambassador Arevalo, the distinguished representative of Colombia, to address the Committee on the same subject. You have the floor Sir.

Mr. C. AREVALO (Colombia) *(interpretation from Spanish)*: Thank you Mr. Chairman. First of all, my delegation would like to say how pleased we are with very active participation from delegations who have given their views and positions on this important topic, which we promoted. We feel that this is one very specific use that is good for developing countries and I would also like to say that it is a question that can be seen as a dual, education for space and space for education, symmetrical, as was pointed out by the United States delegation. It is a two-track process.

And in that connection, I would like to draw your attention. When the Space Conference of the Americas was held, Latin American countries, in Cartagena, in Colombia, in 2002, 14 to 17 May, set common priorities for Latin America and the Caribbean with education being therein. And there we set some clear objectives which were enshrined in the Cartagena Declaration, as well as in the Action Plan. These focus on the importance of space technology as a fundamental instrument for the benefits for the region and the Interim Secretariat has sought to re-double all efforts for this purpose.

We also encourage countries to have active policy for greater dissemination of the topics of the space agenda and that with a view to have collective awareness on the importance of the use of space technology so as to have sustainable development achieved.

These points are in CRP.7 that was published by the Secretariat and I would like to ask the Latin American representatives here to forward it to their capitals. It is being translated into English by the Secretariat and it contains the work done by the Interim Secretariat in this area.

In the same connection, I would like to say that we would have liked to hear on the progress made in the Mexican and Brazil Education Centres last year. The delegation of Colombia, together with other Latin American delegations, made some suggestions in that so that the Regional Centres could have closer connections with the Interim Secretariat. We have the Fifth Space Conference soon and we would like to see tighter links between the Centres and the Interim Secretariat. We would like to ask that there be greater representation of the Andean community countries in the decision-making bodies of the Centres. We have not had any response as yet on this specific topic and we would like to stress that this is fundamental and that is that the governing bodies of the Centres have the full representation of Latin American countries.

Mr. Chairman, Colombia developed a number of events in this connection that I think we should mention. The first of these is an event that took place in Barranquilla. I am mentioning this because it is an example that is not important because of its dimension but rather because of its symbolic meaning. There, there were a number of activities such as space and sustainable development, where many young people took part from schools, from the city of Barranquilla, a city on the Caribbean coast, and there were also other events as well. Another one that I think of is children talking about the environment. I think there is a tremendous potential there. These were children aged between seven and 13 from various schools of the region and I think that is something that is fundamental and should be recognized.

Furthermore, in October 2004, there was a video conference with NASA members on 8 October and children on that occasion, children from various schools on the Atlantic coast, had the opportunity to interact directly with NASA in Houston and that with various topics of special interests and in particular relating to sustainable development. This is something that I believe is worthy of note because these are encouraging for young people.

Space Week was held in Colombia as well with participation from many people and that is not only academics. Here too, we had media, we had the radio which is very important in Colombia. And also 8 to 13 August this year there will be an event and that with support from the project “Improvement of Cartography Systems for the Colombian Territory”. This is co-financed by the European Union and this will be Geomatic Week 2005 with national and

international experts from public and private institutions on questions such as remote sensing, GIS, GPS, geodesy, digital cartographic production, space data infrastructure, digital photogrammetry and land register and so on. These are elements that are going to be covered during that week which is going to be held in August.

To conclude, I would like to stress points made by various delegations, UNESCO in particular. Dr. Yolanda Berenguer addressed the question which is a key issue here seeking interaction between the different United Nations bodies and within the United Nations system on the question of space and the United Nations Decade for Sustainable Development. There are elements therein that are fundamental, especially for the promotion of integration of space topics into the various curricula, as well as public awareness being roused and also contribution of space systems to development of various aspects in society.

We are working together with UNESCO and the Office for Outer Space Affairs for an event in Colombia for early November this year where we will have participation with students, academics and the Administration and this is in cooperation with UNESCO.

And finally, Mr. Chairman, I would like to draw your attention to the fact that this will require international cooperation elements. We are very satisfied with the organization of the Symposium in Japan, 14 to 15 October where the question of education on space and capacity-building for sustainable development will be developed. The Interim Secretariat that is very much interested in interacting with the various institutions will be honoured to take part with a paper that it will also present.

These were the points that I want to cover. Thank you.

The CHAIRMAN: I thank the distinguished Ambassador of Colombia for his intervention on agenda item number 10.

Distinguished delegates, that was the last request I had this morning on agenda item 10. Do I have any other delegation wishing to address this Committee on agenda item 10 at this time? The agenda is still open this afternoon and we will conclude that debate this afternoon.

Space and water (agenda item 11)

OK. If not, please burden me, contrary to my statement this morning, that we should now be taking up agenda item 6 and go to agenda item 11. I have been informed by the Secretariat that we are going to lose one or two of our speakers on agenda item 11 if I do it that way. So with your permission, I am switching so that we can begin our consideration of agenda item 11 first and thereafter consider agenda item 6 later.

And the first speaker on my list is the distinguished representative of the United States, Mr. Higgins. Space and water.

Mr. J. HIGGINS (United States of America): Thank you Mr. Chairman. My delegation is pleased to make a statement about current and future activities in the United States related to space and water. From our perspective, there is a lot of interest being generated in the various aspects of water, particularly in areas related to science research, management and policy setting. This interest is derived from the potential to get new pieces of information from space-borne platforms, including those currently in space, those in the planning stage and those still in the theoretical stage.

In scientific research, we understand that the global water cycle is vast and cannot be fully understood with only *in situ* observation networks. Not only are many of these networks fading, but augmenting these networks for global coverage would be extremely costly. Satellite observations offer an alternative method for seeing the entire Earth and are essential for understanding remote, hard-to-reach places.

In the realm of water management and policy setting, decisions are often only applicable for a local area so it is sufficient to use only local observations as guidance. However, the growing areas of water cycle science and use of satellite technology allow a much broader view to be distilled for local usage, either by adding new pieces of information or information that allows for a reduction in the uncertainty of local assessments and forecasts.

Currently, there are many research and operational space-borne assets that shed light on water in all its forms. These include satellites that allow us to look at the state of the ocean, enabling improved skill in seasonal forecasting of climate. In the case of El Niño and La Niña, satellites also provide information about the potential for various hydrological extremes, such as flooding, droughts or high numbers of intense thunderstorms. The synergy between operational and

research missions cannot be overstated. The research missions not only test new technology and science but, if successful, they are readily used by scientists to support operational functions because the research data can fill operational data voids or offer other scientific information that may be unavailable from current operational satellites.

The United States continues to explore the uses of satellite remote sensing data to solve and/or mitigate the problems related to limited water resources. For real-time assessment of water properties, data from many satellites, including the United States Polar Orbiting Environment, or POES, the Geostationary Orbiting Environmental, or GOES, and Defence Meteorological Programme Operational Satellites, and the Gravity Recovery and Climate Experiment, called GRACE, LANDSAT, Tropical Rainfall Measuring Mission, Terra and Aqua research satellites. These can help to determine precipitation activity, snow cover, soil moisture, changes in underground water storage, flood inundation areas and even some estimates of evaporation. Additional information can also be derived that are critical for water science and management, such as surface temperature, wind speed, short- and long-wave radiation and vegetation type and health.

NASA and other United States Government agencies are presently contributing to a National Integrated Drought Information System, or NIDIS. Contributions include uses of satellite data to improve drought prediction and monitoring. NIDIS is one of the United States' contributions to the Global Earth Observing System of Systems activity.

Another activity that I would like to mention is NASA's recent involvement in a multi-agency effort to assess the readiness of the Mahgreb countries of North-West Africa to receive science and technology capability from the United States to enhance their water management activities. We have noted particular interest on the part of Moroccan scientists and managers to learn more about NASA's capability to assimilate remotely-sensed data.

In the future, the United States plans to begin operating its next-generation environmental satellites: the National Polar Orbiting Operational Environment Satellite Programme, or NPOESS, and the next Geostationary Operational Environmental Satellite, the GOES-R Series. These satellites will collect and disseminate data about the Earth's oceans, atmosphere, land, climate and space environment, providing high-quality, sustained environmental measurements for monitoring the global water cycle and related weather phenomena.

Mr. Chairman, I think we all agree that the topic of "Space and Water" is a very timely one with many current discoveries and the prospect of future developments. The challenge now for all member nations, and one the United States is pursuing, will be the task of ensuring that this new wealth of valuable science data is readily available and converted into practical information, usable by the decision- and policy-makers.

Thank you Mr. Chairman.

The CHAIRMAN: I thank you Mr. Higgins for that statement of the United States on agenda item 11, Space and Water.

And the next speaker on my list is Ms. Sasaki, the distinguished representative of Japan. Ms. Sasaki, you have the floor.

Ms. K. SASAKI (Japan): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, on behalf of the delegation of Japan, I have the honour of presenting Japan's experience with and future plans for water cycle observation.

A magnitude 9.0 earthquake struck deep under the Indian Ocean on 26 December 2004, triggering massive tsunamis that killed more than 100,000 people in a dozen countries including Indonesia, Thailand, Sri Lanka, Malaysia, India and the Republic of Maldives.

As discussed at the Earth Observation Summit, water-related disasters, such as water shortages and floods, cause serious problems in developing countries. Therefore, it is important to share our experiences using Earth observation data for water resource management.

Japan is located in East Asia and, like other Asian countries, its environment is frequently affected by monsoons. Understanding the global water cycle is, therefore, vital for predicting the future and for ensuring and improving the quality of our daily lives. Water resource management, rainfall and drought, varies from one country to another, but we should understand the water cycle on a global scale. Satellite observation is the best method for observing the water cycle and for quickly acquiring global data, especially in case of sudden climate change. The Japan Aerospace Exploration Agency, JAXA, and other Japanese agencies currently observe the global water cycle, particularly rainfall, by satellites.

Today, JAXA and the United States are working together to observe the global water cycle. The data acquired by the Tropical Rainfall Measuring Mission, TRMM, and AQUA contribute to the analysis of the global water cycle mechanism and to improving the accuracy of weather forecasting. We are now planning the Global Precipitation Measurement, GPM, project to establish international water-cycle monitoring as a Japan-United States initiative based on the technological experience we have gained.

The GPM project seeks to monitor water-cycle variation and natural disasters, including torrential rains, typhoons, floods and droughts, and to forecast weather. The GPM system accurately observes rainfall every three hours using the main satellite which carries precipitation radar and a microwave radiometer like TRMM and using smaller satellites that carry microwave radiometers in polar orbits. We will improve the technology for observing three-dimensional structures of rainfall systems and drop-size distributions based on TRMM/PM. We will also develop a new radar, the Dual-Frequency Precipitation Radar, DPR, which will accurately observe rainfall intensity. The DPR is the key to ensuring accurate rainfall observation through the GPM project. The high accuracy rainfall intensity data acquired by the GPM project will contribute to improving the accuracy of weather forecasts.

The International Flood Network forecasts possible areas of flooding using satellite precipitation data, acquired from the GPM project and the like, and provides the information to participating agencies in that area. Moreover, research and development has been promoted to increase the effective use of satellite data.

The Advanced Land Observing Satellite, ALOS, will be launched this year and will contribute to mapping, Earth observation, disaster monitoring and resource surveys. ALOS observes land surfaces using three Earth-observing sensors: the Panchromatic Remote Sensing Instrument for Stereo Mapping, PRISM, which reads topographic data; the Advanced Visible and Near Infrared Radiometer-2, AVNIR-2, which checks land surface; and the Phased-Array L-Band Synthetic Aperture Radar, PALSAR, with which we can observe land surfaces and ice sheets regardless of weather conditions or the time of day. JAXA, which joined the International Charter in February 2004, will provide disaster monitoring data from ALOS. The topographic information compiled from ALOS data enables us to predict disasters.

Mr. Chairman, the flood forecasting system that we are establishing will contribute to flood damage mitigation of major rivers and to water resource control from a land utilization viewpoint. It is based on precipitation data from satellites. The data acquired will be of benefit worldwide. Applications of the highly accurate and frequently reported rainfall data to new areas, such as disaster monitoring and agricultural production monitoring, are also expected. The global observation of rainfall is invaluable for communities in terms of water resource management, food production and natural disaster management. This is so important that we look forward to the development and operation of further Earth observation satellites.

Thank you for your attention.

The CHAIRMAN: I thank you Ms. Sasaki for that intervention on behalf of Japan on our agenda item 11, Space and Water.

And the next speaker on my list, the distinguished representative of Nigeria, Engineer Ibrahim and Mr. Chabo, both of them coming to us from the Federal Ministry of Water Resources of Nigeria. Gentlemen, you have the floor.

Mr. M. H. IBRAHIM (Nigeria): Thank you very much Mr. Chairman. During the last Committee meeting of June 2004, Nigeria presented its experience on the application of space technology in water resources management. A catalogue of projects, both completed and ongoing, were presented to this Committee. Nigeria is very happy to inform this forum again that it has continued to find space technology a very potent tool for its water resources management.

Some of the projects described in the sessional meeting have been completed and their benefits are reaped. Others are ongoing and continue to utilize space-related science tools in their implementation. In addition to the uncompleted ones, a few additional projects have been initiated. The ongoing and new projects are here briefly described here for the information of this Committee.

The Hydro-Niger Project. This project, which commenced in the 1980s, under the auspices of the Niger-Basin Authority, has continued to receive both technical and financial support from the WMO, UNDP and OPEC. The project aims at enhancing data acquisition including real-time monitoring of water levels and discharges of the River Niger and its major tributaries. Old monitoring data collection platforms are being modernized and new ones installed.

Hydrogeological mapping of Nigeria. This project which is to eventually deliver a hydrogeological map of Nigeria on a scale of 1:250,000 is expected to extensively utilize space-related products in its implementation.

Flood Plain Mapping of Nigeria. This project was initiated to solve the problems and devastating effects of flash floods on the lives and properties of the people in the affected areas. The flood plain studies project started in 2004. The studies are expected to determine and delineate the major flood prone areas of the various River Basins and coastal areas making use of satellite products for implementation and for continuous monitoring of the flood plains.

The Iullemeden Aquifer System Project. The Iullemeden Aquifer System, a series of aquifers underlying the countries of Mali, Niger and Nigeria is perceived to be under threats of degradation from natural and human causes, with a high potential risk of water-related conflict among the Basin users. The three countries sharing the aquifer resources realizing this threat have come together with the active collaboration of some development partners, notably UNDP, UNESCO, FAO, IAEA and ESA among others and have decided to study the situation in detail and put together a mechanism for a joint tripartite management of the aquifer. It should be noted that the lives of population of over 15 million people and the larger environment are at risk. The project has commenced and ESA is leading the team that will deliver the space-based component for the project. Pilot areas of interest and the types of products to be delivered by this project have been identified through a series of consultation meetings between ESA and the Illumeden Aquifer user countries.

The Coastal Aquifer Project. This trans-boundary project is expected to address the degradation of the land and water resources of the coastal environment of the countries of Nigeria, Benin, Togo, Ghana and Cote d'Ivoire. The emphasis is on the aquifers, which are constantly subjected to oil pollution, saline water intrusion and others. The project is being coordinated by GEF and UNESCO and will be launched formally later this year. Space technology is to be widely used.

The Lake Chad Basin Pilot Project. The dwindling surface and ground water resources of the Lake Chad Basin has been a serious concern to Nigeria, Chad, Niger, Cameroon and the Central African Republic, whose nearly 30 million people depend on water resources of the Lake for their livelihood.

Nigeria is championing the promotion of efforts to restore the water resources of the Lake. While within the framework of the Lake Chad Basin Commission, the restoration of the Lake level through an inter-basin water transfer is being considered, among others. Nigeria has also initiated a measure to artificially recharge the already depleted aquifer of the Basin.

It is gratifying to see that the Project, through taking a wider scope, has virtually come to fruition with the support of the UNDP, ESA and others. At a three-day meeting here held in Vienna, a Project Team has come up with an implementation plan, which will be presented in detail by a member of the team after this statement.

Thank you very much Mr. Chairman.

Mr. J. CHABO (Nigeria): Mr. Chairman, distinguished delegates, the team that we have just mentioned comprises member countries of the Lake Chad Basin Commission, the Lake Chad Basin Commission itself and the Development Partners and donors.

Now the team that did the planning was guided by its partners and the donors and they had adopted the title for the project "Space Technology for Integrated Water Resources Management of the Lake Chad Basin". And the main objective of the project was to apply appropriate space-related technology for the restoration of Lake Chad and to apply same for the management of water resources of the Basin in order to ensure its sustainable development.

Now, there are specific objectives that were identified. These were: creation of database for monitoring water resources of the Basin; institutional development; human capacity-building; socio-economic development and poverty alleviation; and operational sustainability.

The scope of activities or work and activities were identified, which include inventory of the existing data and acquisition of data.

One of the major items, information extraction and dissemination. Processing, manipulation, interpretation and analysis of data and dissemination of generated products are expected to be carried out.

Then there is the item of capacity-building which targets decision makers, programme managers, technicians, private sector and end-users who include

women, children and _____ *(not clear)* communities.

Areas of capacity-building were identified and these include equipment management, data collection and the rest of them.

Institutional development in this item have the targets of the Lake Chad Basin Commission itself, the National Focal Point of the various countries and other African Basin Authorities.

Areas of institutional development include equipment, management and regulation.

Socio-economic development.

Operational sustainability also. Some of the items that we have identified to be carried out.

A timeframe has been put by the Planning Committee for five years and activities to be carried out have been listed here and these include capacity-building, inventory of the existing data, acquisition of data; manipulation, and the rest of them and cost elements have been put on these items. These are proposals for the Committee.

The partners who have indicated their interest in taking part in this project include the Lake Chad Basin Commission, the National Water Management Institutions and Lake Chad Basin Communities, ECA/United Nations Water/Africa, ESA, the United Nations COPUOS, the United Nations Office for Outer Space Affairs, UNESCO, the Indian Space Agency, the Nigerian Space Research and Development Agency and ITC – The Netherlands.

The donors who have indicated their _____ *(not clear)* include the UNDP, the Africa Water Facility/African Development Bank, the World Bank, the European Union/Water Initiative, Austria and The Netherlands. We have GEF funds and counterpart contributions from the Lake Chad Basin Member States.

The resource requirements identified so far include: for staffing, experts in each LCBC Member State for the start-up and project coordination at N'djamena.

Human resources development include: fellowship for capacity-building for LCBC; fellowship for capacity-building for nationals; and for short-term training programmes and long-term training programmes.

Financial resources will be required and, like we said, will come from donors, from LCBC member countries and from proper budget management.

The equipment that will be required for the project will be both hardware and software, a long list is given there.

Then model dissemination which is at the end of the project and information has been gathered and analyzed. Models that have been prepared and these will be disseminated. These will be on awareness creation, policy makers, technical personals, that will be the beneficiaries to this information activity.

The tasks of the Development Partners, it could not all be done but for a few, these have been identified. The European Space Agency is to provide technical and capacity-building support. The Economic Commission for Africa is expected to facilitate study tours of the Lake Chad Basin by other African countries and formulate projects for other basins and to also assist in mobilizing financial support for programmes.

The expected output of this project will include: database; hydrological/hydrogeological models; particularly for maps; new technologies; improvement in standard; and applications for use at community level.

Impact and services of some of the outputs and these will be experts in the technology acquired, new partnership and more confidence in the system, in the personnel and communities, effective management of resources, sustainability, improvement of cooperation between Member States, better understanding and planning of socio-economic activities and impact on community development activities and these will include farming, flooding, siting of wells and the rest of them.

Mr. Chairman, these are the planned activities put together by the Planning Committee for this pilot project.

Thank you.

The CHAIRMAN: I thank the distinguished delegates of Nigeria for their intervention on agenda item 11, Space and Water. On behalf of this Committee, let me wish you good luck on your proposed restoration of the Lake Chad Project, probably one of the greatest tragedies that has affected Africa. It is our hope that you will be able to come

back and adequately inform this Committee of the progress you are making on your restoration efforts in about a year or two. We thank you very much for your presentation.

The last speaker on my list this morning, on agenda item 11, is the distinguished representative of the Economic Commission for Africa, Dr. Stephen Donkor. Dr. Donkor comes to us from Addis Ababa as ECA's Senior Regional Advisor on Water Resources. Dr. Donkor, you have the floor please.

Mr. S. DONKOR (Economic Commission for Africa): Thank you Mr. Chairman, I am very grateful for getting this opportunity to address this Committee for the first time. I belong to the water group so I am not a space person. But as I listened to some of the deliberations this morning, it occurred to me that deep space and water are like a reflection of each other because just before I came here I just saw a news item on the fact that water is one of the major limitations of space exploration and anything that comes down to preserve water or conserve water or recycle water can determine the limits of human exploration in space. And most of us in Africa, from a economic point of view, we see space as providing an opportunity to manage water resources or socio-economic development. This role of water as an instrument for socio-economic development can be embodied in one simple statement: water is life. And it is a theme which has run through the discourse of water resources affairs in the last five years or more.

In Africa, this has led to a developmental revision which can be summarized in a short statement as an Africa where there is an equitable and sustainable use and management of water resources for poverty alleviation, socio-economic development, regional cooperation and the environment. To achieve this vision, all stakeholders in Africa agreed on four principle challenges, that is, strengthen the governments' water resources in Africa, meeting urgent water needs for drinking water supply and food production, strengthen financial resources for development, and most importantly for this intervention, improve what we call the 'water wisdom', because in Africa we notice a lack of accrued data and information and also timeliness of information has been one of the major bottlenecks in the management of water resources in Africa.

It is in this context that the commitment of the space agencies and the World Summit on Sustainable Development in 2002 to assist Africa and other developing countries in the utilization of space technology for water management. That is very, very welcome. The theme "Water, Space, Africa" has been transformed into a project called "Tiger", led by the European Space Agency. And from the Economic Commission's point of view, this provides Africa an opportunity to leapfrog over the gaps in Africa's water information, similar to the role the mobile telephone is playing in the telecommunications sector in Africa.

Within the context of the General Assembly resolution, declaring the years 2005 to 2015 the International Decade for Action: Water for Life, we foresee the role of this space information and help and manage Africa's water resources increase over the Decade.

The ECA, the Economic Commission for Africa, is contributing to this effort by trying to create a one-stop shop for water resources information which we call the African Water Information Clearing House and looks forward to integrating the information products of the Tiger and similar initiatives within the space community and this Clearing House.

Finally, Mr. Chairman, I would like to invite members of this Committee who are interested in joining the United Nations system, organize a United Nations/Africa group and develop a partnership with African communities and States and use this space technology for the development of Africa's water land resources. Further information on some of these activities can be found at this website, www.unec.org/awich.

Mr. Chairman, I thank you for giving us the opportunity to make this short information.

The CHAIRMAN: Dr. Donkor, I thank you very much for your intervention on agenda item 11, Space and Water, and I sincerely hope that distinguished delegates will take you up on your invitation to join the Africa Water Programme because this is in the best interests of African development. So I thank you Sir for your contribution.

Distinguished delegates, with your permission, I would like to suspend our consideration of this particular agenda item until this afternoon.

Is this agreed?

OK.

Implementation of the recommendations of UNISPACE III (agenda item 6)

And then open agenda item 6. I have something I am supposed to say first. Excuse me for the interruption.

Distinguished delegates, under agenda item 6, I would like also to continue our consideration of the implementation of the recommendations of UNISPACE III. To do that, I would like to give the floor to our Second Vice-Chairman and Rapporteur of this particular Committee and he is also the Chair of one of the two chairs of the Action Team on Environmental Monitoring Strategy, that is Action Team Number One, Dr. Parviz Tarikhi of the Islamic Republic of Iran. Dr. Tarikhi will inform us now about the meeting here and others conducted on the Action Team last week. Dr. Tarikhi, you have the floor.

Mr. P. TARIKHI (Islamic Republic of Iran): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, on behalf of the other co-chairs and members of the Action Team Number One recommendations, "Develop a Comprehensive Worldwide Environmental Monitoring Strategy" of the Implementation of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, UNISPACE III", I would like to take this opportunity to give a brief report of the activity of the Action Team about its work and current status.

The Action Team held its eighth meeting in the margins of this COPUOS meeting on 10 June, Friday. The Chairman of COPUOS also attended this meeting and the Team discussed the issues before it and the Plan of Action of the Team that was announced provisionally by the co-chairs of the Action Team and distributed to all the members of the Team.

The meeting agreed on continuing the work of the team according to the Plan of Action that was announced previously and it decided that two groups for feasibility study of both the pilot projects, remote sensing applications for monitoring of desertification and establishment of an institute on the use of integrated comprehensive data in environmental monitoring to be established and begin their work based on the schedule of the work announced in the Plan of Action.

The lack of participation and contribution from the members was considered as one of the important impediments in the work of the Team and some solutions were expressed in the meeting. The lack of contribution and participation by the members is the important issue that needs for further consideration by COPUOS and the Office for Outer Space Affairs and the Team is ready to cooperate with the Committee and the Office for Outer Space Affairs in encouraging more extensive and constructive participation by the members.

Thank you Mr. Chairman.

The CHAIRMAN: Dr. Tarikhi, I thank you for that intervention and the progress report on your Action Team. Probably one of the most cogent you said is your last paragraph in your statement and that is the lack of participation and contribution of those Member States and organizations that actually signed up to be active members of your Action Team. Unfortunately, I do not believe your Action Team is alone in experiencing this problem and all I can do right now, on behalf of the Committee, is appeal to all the delegates, particularly the countries that have signified their interest in making contributions to the work of a number of Action Teams, to please do so in order that this Committee can be effective in addressing the global problems we have been charged to addressed.

So I thank you Dr. Tarikhi for your intervention.

Distinguished delegates, I understand that the Secretariat this morning circulated Conference Room Paper 13, which contains the progress report of the Ad Hoc Expert Group that is conducting a study on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management.

Before opening the floor for comments on this progress report, may I invite Dr. Camacho, the Director of the Office for Outer Space Affairs, to introduce CRP.13. Dr. Camacho, you have the floor.

Mr. S. CAMACHO-LARA (Director, Office for Outer Space Affairs): Thank you very much Mr. Chairman. Mr. Chairman, before introducing the report, I would like to join other delegations in accepting my sincere condolences to the Government of Chile and to the people of Chile for the effects of the earthquake that occurred yesterday morning.

Mr. Chairman, I am very pleased to introduce the progress report prepared by the Ad Hoc Group of Experts. As you are aware, our Office has supported the Group of Experts from its beginning, coordinating the establishment of the Group and providing Secretariat and substantive support to the Group.

Mr. Chairman, the Group worked very intensely and has produced a very high quality, in my view, study in a very short time. This, to me, is particularly satisfying because disasters do not wait. We have seen since 26 December, when we had the tsunami, to yesterday when we had the earthquake in Chile, countless disasters. Of course, it was the tsunami that had the most casualties but since then, there have been people that die because of disasters and they will continue to occur. One of the elements of high value, I think, in this CRP that you have in front of you is the fact that we are beginning to get coordinated to provide the resources that might reduce, not might, I am convinced, would reduce both the loss of life and the loss of property.

With that, I would like to say only, Mr. Chairman, that this Group really does deserve the appreciation of our members of the Committee for the very good work that they have done in the time in which they have done it.

Thank you very much Mr. Chairman.

The CHAIRMAN: Dr. Camacho, I thank you for that intervention on that subject of the Ad Hoc Expert Group.

Now, distinguished delegates, I would now like to invite Dr. Marius Piso of Romania to make a statement on behalf of the Ad Hoc Expert Group. Dr. Piso, he is the President of the Romanian Space Agency. Dr. Piso, you have the floor.

Mr. M. PISO (Romania): Thank you Mr. Chairman. Mr. Chairman and distinguished delegates, on behalf of the nominated experts of the Ad Hoc Expert Group, I would like to thank the Committee for the opportunity to present the progress report, which is contained in the document A/AC.105/2005/CRP.13. This document has already been distributed to all delegates.

This progress report provides a comprehensive review of the work carried out by the Ad Hoc Expert Group, a summary of the topics discussed, the main findings and recommendations and a Plan of Work to conclude the DMISCO report in time for the sixtieth session of the General Assembly as determined in the Terms of Reference of the Ad Hoc Expert Group.

I will not read the whole report but I will focus on some main paragraphs.

Starting with resolution 59/2 from October 2004 on the review of the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, UNISPACE III, the General Assembly agreed that a study should be conducted on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management and that the study should be prepared by an Ad Hoc Expert Group, with experts to be provided by interested Member States and relevant international organizations.

The General Assembly also requested the Committee on the Peaceful Uses of Outer Space to review the progress in the work of this Ad Hoc Expert Group at its forty-eighth session in June 2005.

The Ad Hoc Expert Group was established and met for the first time on Friday, 25 February and Monday, 28 February 2005, on the margins of the forty-second session of the Scientific and Technical Subcommittee of the Committee.

This Ad Hoc Expert Group was divided into the following sub-groups: Sub-Group 1 on Functions and Benefits; Sub-Group 2 on Governance, Scope and Nature; Sub-Group 3 on Funding; Sub-Group 4 on Case Studies; Sub-Group 5 on Earth Observation Data Websites; and Sub-Group 6 on the Implementation Plan.

The work of the Ad Hoc Expert Group was led by a Steering Committee consisting of the leaders of Sub-Groups 1, 2 and 3, and the representatives of Canada, China and France, the co-chairs of the Action Team on Disaster Management, as well as the Office for Outer Space Affairs.

The Sub-Groups of this Expert Group carried out most of their work electronically, by e-mail. Each of the Sub-Groups developed its own first draft report.

A meeting of the Ad Hoc Expert Group was hosted by the Office for Outer Space Affairs in Vienna on 17 and 18 May 2005 to review the draft reports prepared by the Sub-Groups and that meeting had been attended by representatives of 10 countries and the Office.

Subsequently, the draft reports of the Sub-Groups were revised based on the discussions held during the May meeting and the full draft report was presented to the Expert Group during the meeting held on 13 June 2005, on the margins of the forty-eighth

session of the Committee. At that meeting, the Experts also prepared the present progress report to be submitted to the Committee for its review.

The experts unanimously agreed that there was an urgent need for the establishment of a coordination mechanism to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management. And this Ad Hoc Expert Group decided to continue referring to this coordinating mechanism as DMISCO, Disaster Management International Space Coordination.

Based on the identified gaps and the possible benefits, already summarized in the progress report, the Ad Hoc Expert Group identified the following main aspects that were taken into consideration when defining the coordinating mechanism being proposed: (a) DMISCO should be seen as a one-stop shop for information and as a platform for fostering alliances; (b) DMISCO has to be user-driven, this means that the disaster community has to be centrally involved and the work has to be carried out to the benefit of the user community; (c) DMISCO should contribute to bridging the gap between both communities, the disaster and space communities, creating a forum where both can meet; (d) DMISCO should leverage existing resources of space agencies; (e) DMISCO should focus on existing gaps that are constraining the use of space technology for risk reduction and disaster management; (f) the implementation of DMISCO should be incremental and not phased, DMISCO should be able to fulfil its responsibilities from the beginning; (g) DMISCO is to have informational, coordination and operational functions; and (h) DMISCO should harmonize with existing global initiatives, identifying synergies and building upon common opportunities and should also contribute to the coordination of such initiatives.

DMISCO is to be identified as a platform for fostering alliances of international initiatives and mechanisms, space technology and disaster management. The emphasis of its activities and services should lie in the coordination and interaction with relevant national authorities, scientific institutions, organizations implementing and/or providing space-based solutions, humanitarian, environmental and civil protection actors, and the space community.

Informational functions to be carried out by DMISCO should include: (a) a web-based information service that covers all activities and initiatives relevant to the space technology and disaster management community, including information on case studies and best practices; (b) information on access to existing archive data for risk reduction and disaster management activities; (c) public awareness; and (d) outreach activities.

Coordination functions should include: (a) contribution to bringing together United Nations agencies, international and regional agencies, national level institutions, aiming at bridging the gap between the end-user and space communities; (b) contribution to bringing together and harmonizing existing and future initiatives, such as the International Charter Space and Major Disasters, RESPOND-Humanitarian Global Mapping Services, GMES, Global Monitoring for Environment and Security Service Centres, and GEOSS; (c) another coordination function is the establishment of and work with communities of practice, this means e-based, electronically-based forums; (d) contribution to the refinement of user requirements and best practices, customization, building cumulative experience; (e) negotiation of data policies on behalf of users, as acquisition, use, pricing and archiving; (f) facilitation of capacity-building including definition of suggested curriculum; and (g) contribution, at the request of the relevant national institutions, to the definition of disaster management planning and policies with regard to the use of space-based technologies.

The operational functions should include: (a) contribution to the implementation of activities and projects identified in conjunction with National Focal Points. The entry point to DMISCO to provide operational support is a request from a National Focal Point. The responsibility of DMISCO will be to help define the activity or project in conjunction with the National Focal Point, identify possible partners and help identify sources of funding. DMISCO would implement the project primarily through external partners; and (b) the contribution to the implementation of GEOSS mandates in the area of risk reduction and disaster mitigation.

This Ad Hoc Expert Group concluded that a coordinating mechanism such as DMISCO could be implemented either as a programme within the United Nations system, included as a mandate, or as an intergovernmental organization outside the United Nations but linked to the work of a specific United Nations agency. Furthermore, DMISCO could be either located physically within the premises of the United Nations, such as the Office for Outer Space Affairs in Vienna, or hosted by a Member State. Initial review of the advantages and disadvantages of each of the four options by the Ad Hoc Expert Group has

indicated that DMISCO initially should be implemented as a United Nations programme under the leadership of the Office for Outer Space Affairs.

The Ad Hoc Expert Group estimated, based on the initial list of the functions identified above, that the implementation of DMISCO would require an approximate yearly budget of US$1,300,000, considering the programme based in Vienna, which would cover personnel, a staff of 10, facilities, it means operation and maintenance, and operational costs. The total amount would vary depending on a Member State offering to host DMISCO and providing the facilities and part of the staff and also if in-kind contributions are made available, including secondment of experts. Whether DMISCO is hosted by a Member State or located within the premises of the Office for Outer Space Affairs, the United Nations contribution to DMISCO should be limited to covering the cost of three staff members, two Professional and one General Service staff, to the total amount of US$395,000.

The Ad Hoc Expert Group agreed on the following next steps: (a) the finalization of the report, including the comments received during the meeting held in Vienna on 13 June, the deadline 5 August 2005; (b) the second step, the main part of the report, including the Implementation Plan, will be revised by the members of the Steering Committee and shared with all members of the Ad Hoc Expert Group for comments, the Annex on Case Studies will be finalized by the members of Sub-Group 4 under the leadership of the Czech Republic and Iran, with contributions from all experts and shared with all members of the Ad Hoc Expert Group for comments, the Annex on the Earth Observation Data Website will be finalized by members of Sub-Group 5 under the leadership of Romania and shared with all members of the Ad Hoc Expert Group for comments; (c) as determined in the Terms of Reference of the Ad Hoc Expert Group, the final report will be submitted in September 2005, in time for the sixtieth session of the General Assembly. This timely submission will provide an opportunity to move forward and implement one of the major recommendations of UNISPACE III.

Distinguished delegates, had we had DMISCO in place last year perhaps the contribution of space technology to the tsunami disaster would have been more decisive. Working now to have DMISCO in place will guarantee that such a mechanism is ready and in place before the next disaster strikes.

Thank you distinguished delegates for your attention.

The CHAIRMAN: Dr. Piso, on behalf of the Committee, I want to thank you and your Ad Hoc Expert Group for an excellent work done. As you know, you have been addressing a significant issue that affects the total global community. Before I make my concluding remark, I wish to take this opportunity to thank the Steering Committee itself and particularly the leaders of the Sub-Groups 1, 2 and 3, including the representatives of Canada, China and France, who are the co-chairs of the Action Team on Disaster Management, as well as the Office.

You said many significant things this morning but I want Member States who are listening in this room and who might hear your voice later on, to take particular note of your conclusion, and for the benefit of the Committee, I would like to repeat that conclusion. And that is, had we had DMISCO in place last year, perhaps the contribution of space technology to the tsunami disaster in Asia would have been more decisive. Working now to have DMISCO in place would guarantee that such a mechanism is ready and in place before the next disaster strikes. I commend that conclusion to your heart, distinguished delegates.

Just a second please.

I have a number of delegations that have asked for the floor to make comments on this particular report and the first speaker on my list is the distinguished representative of the United Kingdom, Ms. Lavery. I do not know whether the pronunciation is correct. Forgive me.

Ms. C. LAVERY(United Kingdom of Great Britain and Northern Ireland): Thank you Mr. Chairman. It is Mrs. Lavery, but very good.

I would also like to start by offering my condolences to the delegation of Chile on the earthquake which occurred yesterday.

My delegation welcomes the progress report of the Ad Hoc Group of Experts on Disaster Management as set out in document A/AC.105/2005/CRP.13 and notes the findings and recommendations contained therein. The Ad Hoc Group has done a lot of important work in this area and my delegation encourages the Group to maintain their level of activity in completing their work and finalizing their report.

My delegation will continue to encourage support for targeted activities and international collaboration that will contribute to more effective disaster reduction and risk management practice on the

ground, to reduce the potential for, and impact of, disasters.

Most recently, and partly in response to the Indian Ocean tsunami, a high-level United Kingdom Natural Hazards Working Group was established to advise the Government on priority needs and capabilities to promote better preparedness and disaster reduction. The report of the Working Group was published on 8 June 2005. The report noted that there is a renewed commitment in many countries and international organizations to undertake disaster reduction and to put early warning systems in place and that many programmes have been established or are proposed to address the threat posed by physical nature hazards. The United Kingdom plans to take this forward in the context of the G8 Gleneagles Summit which will take place in July 2005.

The United Kingdom Working Group also observed that these programmes are as yet insufficiently coordinated, that there is an evident need for a more strategic and sustainable global approach and that greater linkage of national and international programmes is needed in order to use resources better, prevent duplication and ensure effort is focused on gaps in the global infrastructure. The Group endorses the view expressed at the Kobe World Conference on Disaster Reduction in January 2005 that there is a clear need for sustainable and effective global multi-hazard early warning system building on existing capabilities and frameworks. In this context, they welcome the developing Global Earth Observation System of Systems, GEOSS, and recognize the high level of effectiveness of the World Meteorological Organization, WMO, hydrometeorological warning system under the coordination of the United Nations.

Through such efforts in bringing together national interests within science, technology, industry and government, and linkages to European and global initiatives, my delegation encourages the greater international coordination of services for the reduction of human and economic losses and the alleviation of suffering attributable to the impacts of disaster events.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of the United Kingdom for her statement on DMISCO.

And I invite Mr. Mayence, the distinguished representative of Belgium, to address this Committee on that same subject. You have the floor Sir.

Mr. M. MAYENCE (Belgium) *(interpretation from French)*: Thank you Mr. Chairman. The Belgian delegation welcomes this initiative and meets with great satisfaction the intermediate report submitted to us. Yesterday, I already mentioned one of the concerns of our delegation, Mr. Chairman. It has to do with the need for a direct and effective relationship between the work of this Ad Hoc Expert Group and things that happen every day on a day-to-day basis within the international space community.

As initiatives such as DMISCO become more concrete and specific, we think it is very important to involve the contributions of all concerned individuals and organizations and establish links with numerous other initiatives that exist in such areas as Earth observation, remote sensing and natural disaster management.

My delegation would like to make sure that someone takes charge of establishing these links with the International Charter for Major Disasters, other initiatives, other projects, to make sure that they are integrated within the ongoing interactive process that should be the DMISCO initiative.

I am saying all that, Mr. Chairman, because while reading the report, I was a little astonished by the fact that the discussion to date and the schedule of events to date, with a view to submitting proposals to the General Assembly, has not included links with such international bodies as the European Space Agency or the European Committee. These are the main initiators of initiatives such as GMES and a number of these States are founding members of the International Charter on Major Natural Disasters. It is important to involve these bodies in the process. How will ESA or other organizations already involved in efforts to promote disaster mitigation and disaster management, how will they be integrated in the process under the heading of DMISCO?

That is one question. And another question, Mr. Chairman, what are the links between this initiative and other initiatives that already exist? I am thinking most particularly of CEOS. In all the discussions that have taken place around the idea of setting up a global system for Earth observation, specifically with a view to the management of natural disasters.

Thank you Mr. Chairman.

The CHAIRMAN: I thank you Mr. Mayence of Belgium for your intervention on agenda item 6, particularly on DMISCO.

I now invite Mr. Prasad of ISRO to address this Committee on DMISCO, of India. You have the floor Sir.

Mr. M.Y.S. PRASAD (India): Thank you Mr. Chairman. First of all, the Indian delegation expresses its condolences to Chile which suffered an earthquake yesterday.

Mr. Chairman, the Indian delegation is happy to listen to the presentation on the progress of the work carried out by the Ad Hoc Expert Group on establishing DMISCO. We highly appreciate the work carried out by the experts from many countries and their specialist contributions.

We also highly appreciate the support provided by the Office for Outer Space Affairs to the Expert Group.

Mr. Chairman, the Indian delegation has a few comments on the substantial content of the presentation and the paper reflected in CRP.13.

As one of the developing countries involved from the preparatory phase of UNISPACE III to now, we thought that our comments should also include some historical aspects of the recommendations concerning the disaster management support.

The following are our comments.

Number one. The Vienna Declaration included the recommendation on, I quote, "integrated global disaster management system". Later, the Action Team on this recommendation, co-chaired very ably by Canada, China and France, did excellent work and produced its report. The report recommended to establish, again I quote, "Disaster Management International Space Coordination Organization. When the United Nations General Assembly took the review of the UNISPACE III + 5, it agreed in its resolution, A/RES/59/2 in para.9, "studies should be conducted on the possibility of creating an international entity …". Now the paragraph 12 of CRP.13 states that the Ad Hoc Expert Group decided to continue to refer to this mechanism as "Disaster Management International Space Coordination". Thus the "Organization" also is dropped.

Thus, Mr. Chairman, we are seeing a continuous watering down of the original recommendation, that is the system in UNISPACE through organization in Action Team reports, to the entity in the United Nations General Assembly resolution and finally to get coordination in the Ad Hoc Expert Group. This, in our opinion, is a progressive dilution of the important recommendations of UNISPACE III.

Second point. Paragraph 13 of CRP.13 identified the gaps in the existing disaster management support activities. The important area for emergency communication is just only mentioned, along with a number of details given on many users of remote sensing data. Our experience showed that emergency communication through satellites is very important during disasters. Realizing this importance, the Office for Outer Space Affairs organized an industry workshop involving communication satellite operators. However, we find only a cursory mention of emergency communication in this progress report and in CRP.13. We hope the subject will find its due importance in the final report of the Ad Hoc Expert Group.

Third point. Paragraph 15 states "there is no single global coordination mechanism to implement and integrate disaster monitoring …". We fully agree with this and this is why we are concerned that what we create to DMISCO should be the real initiative to carry out the function.

Point four. Paragraph 16 lists three international efforts related to disaster management activities. The efforts and initiatives listed of having varied experience, some had been working consistently for a long time and some are yet to take up. We expect the Ad Hoc Expert Group to show this differentiation to be fair to organizations which are listed in this paragraph in their final report.

Point number six. Paragraph 16, in the last sentence, also mentions funding would also be more likely to flow, I am quoting from the report, I am sorry, "funding would also be more likely to flow provided the programme initiated is not too onerous, demanding on existing national or agency budgets." We feel that this assumption is not correct and hence should not guide totally the direction of the work of the Ad Hoc Expert Group. It may be better to explore various standing mechanisms for the purpose of this initiative.

Paragraph 23 also talks about $1.3 million to the start of the initiative. Mr. Chairman, we should remember that billions of dollars across the world is being lost every year due to disasters and various countries donated more than a total of two billion

dollars just for one disaster, post-tsunami relief activities itself. So we feel that the perspective of, hence we feel that the Ad Hoc Expert Group should look at other financing models also in their total perspective, especially a model like an insurance model where each participant bears each year a fee and the total money collected can be used for providing services of the DMISCO to any country affected by the disasters. Similarly, the United Nations has itself another different financing model for ITU wherein each country pays a fixed amount plus the user charges for each of the services. All these financing models should be examined and should not be constrained that it will be worrisome to establish this.

Seventh point. Paragraph 17 lists main aspects to be considered for this mechanism. Point (f) under paragraph 17 it says "implementation of DMISCO should be implemental and not phased". It is not clear to all delegations this aspect and what are the implications of this to the initiative? We would like to see the final report where it may be elaborated along with the implications.

Point eight. The same paragraph, that is paragraph 17 in point (g), states correctly that DMISCO should have informational, coordinational and operational function. We fully agree with this perspective and we appreciate the formulation of these functional roles.

But the next paragraph, that is paragraph 18, says that the emphasis of its activities and services should be in the coordination and interaction. The Indian delegation feels the emphasis should be on the operational function of DMISCO and not on the coordination functions of DMISCO which will automatically become part of it the moment the DMISCO starts its functional activities. However, we agree that it should have all the three components but emphasis should be on the functional aspects.

A ninth point, paragraph 21, the Ad Hoc Expert Group expanded the functional role. We agree that DMISCO should only deal through National Focal Points. This is the correct method instead of directly reaching to the disaster relief operation agencies in a different country. However, in this paragraph, we do not understand why the Group particularly decided to contribute to the implementation of the CEOS mandate only. There are other initiatives like the Charter on Space and Major Disasters which have been more active in the contribution to the disaster management support activities. Similarly, CEOS is another organization which has done elaborate work for a number of years under disaster management and related studies. So we feel that the functional aspects of DMISCO, while coordinating with the other international agencies and initiatives which are involved in the disaster mitigation and support functions should correctly balance its coordination activities.

Paragraph 22, Mr. Chairman, the next point, paragraph 22 talks about how the organization should be. It is the Indian delegation's view that the DMISCO should be under the United Nations system and should be universally accessible to any country. This is one of the fundamental aspects of the formation of our creation of this organization. The last sentence of this paragraph says that "DMISCO initially should be implemented as a United Nations programme under the leadership of the Office for Outer Space Affairs". We agree with this, except with a small change that it should initially be under the leadership of the Director of the Office for Outer Space Affairs and later it should become an independent organization under the umbrella of the United Nations system.

Paragraph 24 talks about the way ahead and the way ahead is mentioned in the last point, point (c), that the report will be submitted to the General Assembly after the review by the Action Team and consent at the sixtieth session of the General Assembly.

Mr. Chairman, we feel that the full report of the Ad Hoc Expert Group has to be reviewed here in COPUOS before it is presented to the United Nations General Assembly.

In view of the issues which need to be improved in the report, as we explained in this intervention, the Indian delegation recommends that the Ad Hoc Expert Group report has to be reviewed in the Scientific and Technical Subcommittee and the forty-ninth session of COPUOS before it is presented to the United Nations General Assembly because we are really concerned that if a two-page report, and a two-page report if we had to intervene in so many points, we are really concerned on some of the report of what form it will take.

Mr. Chairman, we are convinced that this suggestion what we are giving for the procedure to present to the United Nations General Assembly is the fastest way to propose establishment and organization which can truly fulfil in the functions to the benefit of developing countries.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of India for his intervention on the debate on DMISCO.

Distinguished delegates, before we continue, let me take this opportunity to thank the German delegation and in particular Mr. Bräucker. We are scheduling Mr. Bräucker to address us this morning and Mr. Bräucker agrees with us that there is an ongoing momentum here on the debate on DMISCO. So that in order not to interrupt this moment, we are postponing his presentation to the afternoon, no later than 4.00 p.m. He will be addressing us no later than 4.00 p.m. in the afternoon.

Now the next speaker on my list on this debate is the distinguished Ambassador of Thailand, Mr. Ariyapruchya. You have the floor Sir.

Mr. S. ARIYAPRUCHYA (Thailand): Thank you Mr. Chairman. I look at the paper in CRP.13 with much satisfaction because we, in Thailand, feel that the question of disaster management is of prime importance. As I mentioned to you earlier, our Government has been giving priority to this matter and Thailand has already set up our National Disaster Warning Centre as from the 30 May, only about two weeks ago. As any group paper, it would generate a lot of debate and questions. What I am happy about this paper is that it gives us a lot of options that we would have to consider regarding the setting up, the funding, there are many things that we need to look into and also of the relationship with other initiatives around the world. But what I am happy is that here at the United Nations if DMISCO is realized, it will be a coordinating point, a global one, for us.

Of course, Thailand will give this paper its due attention. We will look at it and we will come back with some comments and the deadline is 5 August 2005.

What I would like to add here also, from my memory during the Scientific and Technical Subcommittee meeting, I think we had designated also an expert at that meeting. So could you also please include Thailand as one of the Ad Hoc Expert Group?

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished Ambassador of Thailand for his contribution on DMISCO.

And the next speaker on my list is the distinguished representative of France, Mr. Leclerc. You have the floor Sir.

Mr. C. LECLERC (France) *(interpretation from French)*: Thank you Mr. Chairman. First of all, my delegation would like to join others and express our condolences to the Chilean delegation because of the earthquake that hit the country yesterday.

Mr. Chairman, the Group of Experts that the distinguished representative of Romania had spoke about has done some very important work and that in a limited period of time, as was recalled. My delegation would like to address some questions that we have touched on already on the question of disaster management.

The French delegation, as it has already said, is in favour of the creation of an international entity to optimize space services and that for disaster management. UNISPACE III, and that was held six years ago, gave thrust to the work of our Committee in this area. Action Team 7 and then the Ad Hoc Group of Experts showed how space services can contribute to disaster management and they also examined how to strengthen coordination.

The report given to us looks at the creation of not a new international organization but an entity that would be within the United Nations system and it would benefit at least in the early stages from the support of the Office for Outer Space Affairs. My delegation feels that this recommendation is interesting and in general France feels that the United Nations should have a pivotal role in the collective response to humanitarian problems, looking at universal composition and a global approach. Within the United Nations system, a number of agencies and institutions have already taken action and that to forecast disasters and react to them. The report mentions some of these agencies and my delegation agrees with others who have said that the DMISCO itself should not in any way duplicate structures or initiatives that already exist but rather strengthen them. It is a matter of taking the operators in the space system, supply and bring it closer to demand and potential users as the humanitarian groups.

And that is why my delegation would like to stress two aspects in CRP.13 and support these.

The first is the question of synergies which is in paragraph 17 and that under (h). It is important that the entity find its position and it should mention the possible synergies clearly that with agencies and

initiatives of the United Nations system, in the United Nations system. Besides the agencies already mentioned, I would also like to mention the Office for the Coordination of Humanitarian Affairs and outside the United Nations system, I would like to also point to the Earth Observation System, GEOSS.

The second remark that my delegation wanted to make, Mr. Chairman, is that the notion of the United Nations Programme can cover a variety of circumstances. The French delegation has already had the opportunity to say that, from its point of view, it is a matter of creating a light structure and that in terms of staff as well as management because there has to be coordination of all the various efforts that already exist rather than to create a huge organization that would end up competing with other organizations that are already active.

To conclude, I would like to say that my delegation welcomes the work done by the Expert Group.

Thank you.

The CHAIRMAN: I thank the distinguished representative of France for his intervention.

And I invite now the distinguished representative of Iran, Mr. Rezvanian to address the Committee.

Mr. M. REZVANIAN RAHAGHI (Islamic Republic of Iran): Thank you Mr. Chairman. Mr. Chairman, on behalf of my delegation, I wish also to join others to express our condolence for the tragic incident which has happened in Chile.

And with respect to the progress report of the Ad Hoc Expert Group on debating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management, our delegation wishes to express its support and appreciation to the efforts conducted by all countries and experts, as well as the Office for Outer Space Affairs who wholeheartedly participated in the discussions and made their contributions to the achievements of an objective which, if realized, would pave the way for significant prevention of disasters or at least drastically lower the number of human casualties and further to improve the rehabilitation and reconstruction activities in the aftermath of the disasters.

Suffered from several disasters, particular earthquakes and floods and felt the urgent need of using information and coordination mechanisms at the time such crisis, Iran is actively participating the said Ad Hoc Expert Group and still continues to play its role in creating in such an international entity as an urgent need for humanitarian and development purposes.

Mr. Chairman, while there could be some shortcomings or some space to improve the report of the Ad Hoc Expert Group, my delegation wishes the report as the result of these efforts to be submitted to the General Assembly as a priority with emphasis on the urgency of this issue an extensive, positive impacts that such an initiative could have for disaster management and decreasing the number of casualties and the time required for rescue operation and reconstruction plan.

Mr. Chairman, therefore, we all know that some technical, financial, administration, operational aspects of the proposed entities still need further discussion but we are of the view that this could be settled with a great deal of cooperation of all in future. Therefore, I wish to take this opportunity to urge all members of this Committee to join the discussion and to support the adoption of the resolution by the General Assembly on this issue in New York.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of Iran for his statement on this subject.

I now invite the distinguished representative of the Russian Federation, Mr. Dzubenko to address us.

Mr. P. G. DZUBENKO (Russian Federation) *(interpretation from Russian)*: Thank you. Mr. Chairman, I believe that after everything that we have heard on this subject, I can be brief now.

First of all, on behalf of my delegation and my country, I, too, would like to extend condolences to Chile following the earthquake yesterday.

Mr. Chairman, as I promised, I will be brief. I believe that I do not need to explain to anybody here in this room how important the creation of such an entity is and how timely it is. Thanks to it, it would be possible to have close cooperation and to benefit from all the existing possibilities, space-based technologies that countries here benefit from for humanitarian purposes, causes that can be contributed to with prevention and mitigation of this type of disaster,

offering benefits from know-how and knowledge in this area.

On the work of the Expert Group, we have the report that was introduce by Mr. Piso of Romania and I do not need to draw on this at length. However, I believe we all agree it is a useful, positive project and that is why I can be brief. We fully support the work that was done by the Ad Hoc Group of Experts and overall we agree with the objectives established by the Expert Group, as set out in this document before us.

Mr. Chairman, I would like to say that the representative of India made some very interesting points. There are questions in this document before us which remain not fully resolved and we would agree with the document generally but the only objection we have on the submission of this to the General Assembly. We would like to know more about what is in paragraph 23 and others. In the document, it says that CRP.13 can be submitted to the General Assembly of the United Nations after following a debate and comments from governments. I agree with that.

Thank you.

The CHAIRMAN: I thank the distinguished representative of the Russian Federation.

I understand that we will have interpretation for the next five minutes because we are now five minutes after 1.00 p.m. So I will appeal to other delegations, but before I say that, I am going to invite the distinguished representative of the United States, Mr. Ken Hodgkins, to address us. But after he has addressed us, we will have to adjourn for lunch unless you want to continue without interpretation. But if you want to have interpretation, we have to adjourn after his presentation and we will continue in the afternoon.

That said, I invite Mr. Hodgkins of the United States.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. You have put me in a very difficult position because all the years I have been in this Committee I have wanted one thing which is never to get between the delegates and their lunch so I will be very brief.

I would like to join other delegations in expressing our condolences to the Government of Chile for loss of life and property due to the recent earthquake. And I would also like to join other delegations in expressing our deep appreciation to the Ad Hoc Working Group on putting together what, I think, everyone agrees is a excellent paper.

I had two general remarks more on procedure than anything else. My delegation does have a question as to whether this report really is ready to go forward to the General Assembly this fall. I think it raises a number of questions as to the status of the report and as to whether Member States of COPUOS have actually endorsed the report or not. It is unfortunate that the timeline is not working in favour of the Ad Hoc Expert Group in that regard so I think we should discuss a bit further as to what could be done during the General Assembly.

My second comment or suggestion to the Ad Hoc Expert Group and it is perhaps something that the Committee and the Scientific and Technical Subcommittee will have to look at, and that is who or how do we go about getting the attention of the various organizations that are mentioned in the report that are working in the area of disaster management? We take note of the desire to not duplicate efforts taking place in groups such as CEOS and GEO and the WMO. So we have to really come to grips with the process by which we call attention to this Experts report and what we would like other organizations to take into account, that is, how do we go about identifying a unique contribution that DMISCO can make to the broader efforts that are underway? And what I would suggest the Expert Group needs to look at is what Member State in the Ad Hoc Expert Group will become the, let us say, protagonist, the promoter of this idea within the various organizations. I do not think it is enough for COPUOS to issue a report and asking GEO or CEOS or the WMO or other United Nations organizations to take note of this idea. You really need a member of one of those groups to put this forward as a very specific proposal for those groups to look at and for those groups to actually make recommendations back to COPUOS as to what niche DMISCO could fill. In my experience, this is the only way you are going to get action with a Member State or Member States in each of these groups to be a protagonist for this idea and ask very specifically to these organizations, do you like this idea and what role could be played? Because otherwise the report will only be noted and there will be no further action taken.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of the United States for your intervention on agenda item 6 on DMISCO.

Distinguished delegates, I know there are other delegations that are interested in addressing us on DMISCO. Please grant me the indulgence of deferring your presentations or contributions to this subject until we come back from our lunch break and it will be the first item on our agenda.

That said, I would now adjourn this meeting but before doing so I would like to inform delegates of our schedule of work for this afternoon.

We will promptly, and I repeat promptly, convene at 3.00 p.m. At that time, we will continue and conclude our consideration of agenda item 6, Implementation of the Recommendations of UNISPACE III, and we will resume our consideration of agenda item 7, that is Report of the Scientific and Technical Subcommittee on its Forty-Second Session, and conclude our agenda item 9, Spin-off Benefits.

We will also continue our consideration of agenda item 10, Space and Society, item 11, Space and Water, and agenda item 13, Other Matters.

As agreed to earlier this morning by this Committee, this afternoon we will also hear Mr. Bräucker of Germany. At that time, Mr. Bräucker will make a technical presentation on “DLR School Labs: How to Enhance Interest in Space Sciences”.

At the end of this afternoon’s meeting, there will be one technical presentation by the representative of UNESCO on “Space and Water for Life”.

Also this afternoon, the Working Groups on Space Debris and the Use of Nuclear Power Sources in Outer Space of the Scientific and Technical Subcommittee will continue their intersessional meetings. I understand that these meetings will start at 2.00 p.m.

Are there any questions on this schedule of work for this afternoon?

I see none.

Distinguished delegates, this meeting is adjourned until 3.00 p.m. prompt.

The meeting adjourned at 1.10 p.m.