

Speech at Workshop on Developing An Agricultural Monitoring System of Systems

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Distinguished Co-Chair Academician Ding Zhongli,
Distinguished Prof. John Townshend,
Ladies and gentlemen,

Good afternoon!

Today, I am honored to be here to discuss how to develop a global agricultural monitoring system of systems and share with you the recent developments of GEO.

Since 2005 when it was formally established, GEO has been developing rapidly. It now has 77 members and 56 participating organizations. GEOSS has proceeded from the initial concept stage to the substantial development stage. As GEO Co-Chair, I am pleased at the growth of GEO. In November 2007, GEO held its fourth ministerial-level Earth Observation Summit in Cape Town, South Africa, which was the first event along this line since GEO's inception in 2005. The ministers and delegates expressed their support to the work of GEO and the promotion of Earth observation in their respective members, which is a strong driving force to the development of GEOSS. In November 2008, GEO held its fifth plenary session in Bucharest, Romania, a meeting that was crowned with fruitfulness. The session recognized the implementation of the work plan for GEO 2007-2009 and adopted a new work plan for GEO 2009-2011. It was decided that GEO would work hard to promote the GEOSS Common Infrastructure and the GEO data-sharing policy in the next few years with the hope that at the 2010 Fifth Earth Observation Ministerial Summit, the GEOSS data sharing guidelines could be agreed upon. In addition, high on its agenda currently is the revision of the strategic goal up to 2015 set forth in the GEOSS 10-year Implementation Plan in response to its progress and social development needs in order to ensure that the strategic goal would be accurate and achievable. The theme of this workshop is developing a global agricultural monitoring system of systems - the development of Earth observation data and information-sharing policy. GEOSS data sharing and its successful application in various benefit areas are essential to the success of decadal GEOSS goal. I believe that the workshop will be a positive driver to the GEO data-sharing. By discussing and addressing issues of common concern, you will contribute to the development of GEOSS.

We are very pleased to note that as a result of the initial stage implementation of

the 10-year Plan, the GEOSS infrastructure and data sharing have witnessed considerable progress.

At the second GEO plenary session held in 2005, the United States, Europe and WMO proposed the satellite based data distribution system - GEONETCast, which was joined by China and Russia afterwards. GEONETCast, an enabling system that distributes Earth observation data at global level, has been put into operation. It plays an important role in the fields of meteorology, agriculture, environment and disaster monitoring. In the Asia-Pacific region, FENGYUNCast run by China as one of the main components of GEONETCast was officially commissioned into operation in 2007. Its receiving systems were donated to 17 developing countries in the Asia-Pacific region in 2006 and 2007, respectively, with relevant training offered. In China, there are more than 140 users from sectors like agriculture, forestry, water, meteorology and from universities and research organizations.

At the Fourth Plenary Session of GEO held in November 2007, China, Brazil and other participants jointly announced the decision that China-Brazil Earth Resources Satellite (CBERS) data would be shared with Africa on a free basis and proposed to set up four CBERS ground receiving stations in Africa to receive data covering the whole of Africa. This year, two of them will officially begin to receive and distribute data and disseminate data to users via GEONETCast. Prior to this, CBERS data began to be shared in the Asia-Pacific region free of charge.

At the Fifth GEO Plenary Session held in November 2008, GEO announced that scientists and policy makers worldwide would be able to make free and online access to archived LANDSAT data of nearly 40 years. This represents a strong support to climate change impact assessment, ecosystem monitoring, urban planning and rapid disaster response.

Therefore, through the platform of GEOSS, more and more countries have become beneficiaries of international cooperation.

At present, the global food issue has once again become the focus of attention around the world. The United Nations convened the World Food Summits respectively in Rome, Italy in June 2008 and in Madrid, Spain in January 2009 to bring together world leaders to discuss and address the issues of food security and hunger. Agriculture, which is one of the nine GEOSS benefit areas, is essential to the success of the decadal GEOSS goal. This workshop, which is being held at this moment of time to elaborate at how to facilitate the exchange and extension of agricultural

remote sensing science and technology through the GEOSS platform, will help enhance the agricultural monitoring capacity, integrate and exploit relevant resources available from GEO members in the agricultural field, and engage in global data and information sharing.

We should also pay attention to the capacity building in developing countries. Through the sharing of data, training workshops can be held in developing countries to improve their capacity to apply Earth observation data to agriculture. This should be put high on the agenda of GEO in the next few years.

China, a developing country, has been making efforts in its capacity-building and is willing to share its achievements with others. Earth observation data played an important role in the disaster relief for the devastating earthquake hitting Sichuan in May 2008 and the meteorological service in support of the Beijing Olympic. In May 2008, China successfully launched its second-generation polar orbiting meteorological satellite – FY-3, and in September 2008 successfully launched its first satellite for environmental monitoring and disaster mitigation. These advanced satellites will enhance China's Earth observation capabilities.

China is a large agricultural country. National food security calls for Earth observation very much. Since the beginning of winter in 2008, winter wheat areas in northern China have been suffering low rainfall continuously. There is a severe or very severe drought, hindering the growth of local winter wheat. The use of Earth observation technologies to closely monitor the drought situation, provide a drought analysis, develop a trend forecast and prediction and advise on agricultural production response is very necessary to an informed government decision. To this end, it is necessary to strengthen crop growth monitoring, agro-meteorological prediction and forecasting, grain yield monitoring and prediction as well as forecasts for grain storage, for climate change impact on food production and for variety based and zone based grain production in order to ensure food security.

Finally, I hope we will work together in the field of Earth observation to make our planet a more harmonious home. On this occasion, I'd like to sincerely thank all participating countries for your contribution made to GEOSS. And my thanks also go to the Chinese Academy of Sciences for hosting this workshop. I wish the workshop a success and everyone a nice stay in Beijing.

Thank you for your attention.