

**JAPAN. SCIENCE AND TECHNOLOGY FORUM (STS Forum 6<sup>th</sup> Annual Meeting).  
SPEECH BY JAIME MORALES-CARAZO, VICE PRESIDENT OF NICARAGUA.  
Kyoto, oct./5/2009**

We bring, from the eastern edge of the Pacific Basin which we share, our most respectful and cordial greetings to the people of Japan and their new government, which is presided by His Excellency Yukio Hatoyama.

We extend our greetings to the Honorable Koji Omi, Founder and Chairman of the Science and Technology in Society Forum (STS forum), celebrating its sixth annual meeting in this beautiful, imperial and historic city of Kyoto.

We thank Mr. Omi for this invitation to participate and share our ideas, knowledge and experiences. Also to take the commitments and responsibilities arising from this Forum, and to be an active part, not just occasionally, with the purpose of following up the resolutions and initiatives that here are agreed to and that benefit the Central America region.

It is the first time for a Nicaraguan Delegation to participate in this event, which I preside as Vice President of my country and as President of the Nicaraguan Council of Science and Technology (CONICYT), the foremost organization of the State in charge of the activities of planning, policies formulation, support, coordination and promotion of science, technology and innovation (S&T).

The so called "third world" small countries, so vulnerable and poor, like ours, have experienced,-- without any responsibility for its origin nor any tangible benefit, the grave consequences caused by climate change, the contamination and degradation of the environment, the scarcity of natural resources, among them the vital element of water.

As well as the negative effects promoted, in a greater or lesser degree, by certain factors of the industrial, scientific, technological development and innovative modern advancements, by the globalization and the implacable competitiveness of the dominant forces of the market, without restrictions, regulations nor social responsibilities or human solidarity, including the recent worldwide devastating "financial tsunami".

We say this not with the intention to satanize or to lead to the sterile field of rhetorical confrontations none of the factors mentioned before, nor any system, nor any political, ideological or economic model, neither we say this as a lament, complaint nor claim to anyone in particular, this is just a compact synthesis of certain overwhelming realities that we must correct, reduce or revert gradually, so we can share and participate together, with pragmatism, justice and equality, of the multiple benefits of economic progress and its consequent human development.

Our economic resources are scarce and they barely cover the minimal essential requirements needed, just for survival, of the great majority of our population, mostly poor, in such areas as food, education and health. We lack the resources for the creation of new jobs, private and public investments, of infrastructure, training and innovation, technology transfer, increment in our production and improvement in our competitiveness and international commercialization.

Therefore, besides the prolonged dependence on external factors, among other reasons, and a necessary, valuable and generous foreign aid, for which we are thankful for the friendly governments and their people, the resources that could be devoted to the development and promotion of science, technology and innovation are in fact nonexistent, reaching levels which are more symbolic than real.

In the case of Nicaragua, and we are not the exception, and in the Central American region and a bit further, the official funds destined for CONICYT, are just 0.015 % (US\$ 225 thousands) of our National Budget, which as a consequence of the world financial and economic crisis, has been reduced in 2009 three times in a row, reaching an amount equal to US\$ 1,500 millions.

Clearly, trade and investment represent the priority of the relations between the two sides of the great Pacific Basin, and it appears that those relating to transfers in S&T and others, march in very distinct and almost exclusive paths, widening distances that we must shorten for the benefit of all. The science and technology, education and training, languages, art and cultures, are powerful and irreplaceable vehicles for understanding and bringing peoples and nations closer together.

The low operability and its impact on society, such as the precarious sustainability of the highest institution for S&T in Nicaragua, which is the already mentioned CONICYT, is possible with the support of the Vice Presidency of the Republic, with narrow limits, and some small "tied" contributions from cooperating countries.

Moreover, the primary work of local scientific research and development is performed modestly in some universities and in government centers for technical improvements focused mainly to agriculture. This is supported and supplemented by scholarship programs, training and international exchange of teachers and a friendly international academic cooperation. The role of the private enterprise, of which a very high percentage are small and medium enterprises (SMEs), is in fact nonexistent.

In this field we will suggest a program of incentives and stimulus to promote the development of these activities by the private sector in close partnership with the universities and the enthusiastic support of the State Institutions related to this subject.

We hope the newly created Nicaraguan Academy of Sciences will fill significant gaps and make valuable contributions in these important areas.

Nicaragua will focus its priorities for external cooperation on S&T fields of action, which we believe have higher requirements, potential, short-term feasibility and positive effects on society, in the following areas:

**(1) Agriculture and livestock** (production, storage, processing and marketing of food); **(2) Fisheries and Aquaculture** (potential and sustainable rational use, including oceanographic, weather and fish stock assessment centers); **(3) Water resources** (surface and subsoil potential determination, giving priority to human use and supply, conservation, decontamination, watershed protection, power generation and irrigation); **(4) Forest resources** (inventory, potential, protection, reforestation and its rational and sustainable use); **(5) Environmental and natural resources protection** (including training in biodiversity and biotechnology, collecting and cataloguing the existent biodiversity, DNA, genes and proteins,

to create a complete data bank); **(6) Generation of alternative and clean energy** (hydro, wind, geothermal, biomass and others in which the country has viable potential);

**(7) Prevention and early response to natural disasters** (such as: earthquakes, tsunamis, hurricanes, floods and forest fires); **(8) Professional, technical and intermediate training and capacitation** (including support, promotion and dissemination of S&T through CONICYT, the Nicaraguan Academy of Science, Universities and Technological Centers, including graduate and PhD scholarships, exchanges of teachers, incorporating incentive plans to study mathematics, engineering, sciences, chemistry, physics and others. Also promote the creation of a **Museum of Natural Sciences**, and **Centers, Clubs** or youth networks and popular **astronomy**, in order to stimulate the necessary "curiosity" in research, creativity and innovation); and **(9) Assistance in the Modernization of health matters** (technological transfer and applied clinical research, laboratories, equipment and medicines).

Finally, in these sensitive as fundamental preliminary areas, may I respectfully ask for the consideration of this prestigious Forum, that in a not distant future **all aid cooperation or external accompaniment has a component of at least 0.50% of its allocated amount for activities classified as S&T.**

Thank you very much

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#### **Complementary notes:**

**\*(i).**- As a reference, our GNP is US\$6,400 millions for a population of 5.6 millions inhabitants, in a country of **130,400 km<sup>2</sup>**, --(which includes 2 fresh water lakes: the **Nicaragua Lake (or Cocibolca)** with **8,200 km<sup>2</sup>** and the **Managua Lake (or Xolotlán)** with **1,040 km<sup>2</sup>**) --, with a great economic potential, varied diversity, abundant water, flat and extensive fertile lands, but with a reduced per capita income of US\$1,123.

**\*(ii).**- As comparison but keeping the right perspective, the United States devotes about \$1,000 per capita to S&T, although President Obama foresees significant increases of about 3% of GNP, Spain \$400, Portugal \$154, Mexico about \$14 and Nicaragua close to \$0.05, not including another equal amount from external assistance

**\*(iii).**- Using statistics from this same Forum, they reveal that in its first five years have participated 82 persons at the level of Ministers from 55 countries, of which only 2 are from Latin America (LA), specifically from Guatemala and Honduras. University Presidents 60, none from LA. Academies of Sciences and NGOs 50, with only 1 from LA, corresponding to Guatemala. Apparently this year LA will have more participants, including 2 Vice Presidents from Central America, yours truly from Nicaragua, and my dear friend, the Hon. Dr. Rafael Espada from Guatemala.

The last figures are worrisome as they reflect the great gap between the nations of the American Continent, located to the east side of the Pacific Basin and those, including Japan and China, located at the west end.

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