



THE PRESIDENT  
OF THE  
GENERAL ASSEMBLY

13 June 2012

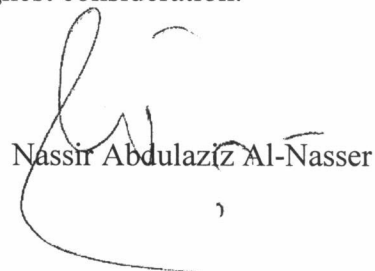
Excellency,

Pursuant to General Assembly resolution 66/204, I convened the second high level interactive dialogue on Harmony with Nature on 18 April 2012 at the United Nations Headquarters to commemorate International Mother Earth day and under the theme of *“the scientific findings on the impacts of human activities on the functioning of the earth system.”*

I am pleased to share with you the summary of the interactive dialogue for your reference. It is my hope that the summary will contribute to an on-going dialogue on harmony with nature.

I would like to express my sincere appreciation to the panelists and participants for their active and valuable contributions to the discussion, which enabled us to consider the important role of science-policy interface in achieving sustainable development.

Please accept, Excellency, the assurances of my highest consideration.



Nassir Abdulaziz Al-Nasser

All Permanent Representatives and  
Permanente Observers to the United Nations  
New York

## Summary by the President of the General Assembly of the second High-level Dialogue on Harmony with Nature (New York, Wednesday 18 April 2012)

### I. Introduction

1. The General Assembly held its second High-level Dialogue on Harmony with Nature on 18 April 2012 at United Nations Headquarters to commemorate International Mother Earth Day. The overall theme of the meeting was "Scientific findings on the impacts of human activities on the functioning of the Earth System".
2. The statement of the President of the General Assembly, Mr. Nassir Abdulaziz Al-Nasser, was delivered by the Acting President of the General Assembly, Mr. Peter Thomson. Statements were also delivered by the Under-Secretary General of the Department of Economic and Social Affairs and Secretary-General of the Rio+20 Conference, Mr. Sha Zukang, as well as by the Deputy Permanent Representative of the Plurinational State of Bolivia, Mr. Rafael Archondo.
3. The scientific panel was composed of: Mr. Owen Gingerich, Professor Emeritus of Astronomy and of the History of Science at Harvard University; Mr. Marc Lawrence, Director of the Cluster Sustainable Interactions with the Atmosphere at the Institute of Advanced Sustainability Studies (Potsdam-Germany); Mr. Pat Mooney, Co-founder and Executive Director of ETC Group; Mr. Josh Farley, fellow of the Post Carbon Institute and the Gund Institute for Ecological Economics and Professor in the Community Development and Applied Economics Faculty of the University of Vermont; and, Mr. Brian Czech, founder and President of the Center for the Advancement of the Steady State Economy (CASSE) and Visiting Professor of Natural Resources Economics in the National Capitol Region of Virginia Tech. Dr. Czech also acted as the moderator of the Dialogue.
4. Participants at the Dialogue included high-level representatives of Governments, representatives of international organizations and observers, representatives of civil society organizations and the private sector.
5. The meeting had before it the report of the Secretary-General on Harmony with Nature (A/66/302) as well as the General Assembly resolution (A/RES/66/204) on Harmony with Nature, adopted on 29 November 2011, which called for the aforementioned Dialogue.

### II. Plenary meeting

6. The acting president of the General Assembly opened the meeting by stating that this year's theme was selected by Member States in General Assembly resolution 66/204, and is an implicit recognition of the importance of ensuring harmony with nature through science and multilateral action. Economic growth associated with unsustainable patterns of consumption and production is hindering humanity's quest for harmony, both within and between societies, as well as between humankind and the natural environment. He further emphasized that more had to be done to address the issue of sustainability and that the future work on this new paradigm should be

supported by globally recognized and coherent science that is capable of creating a strong science-policy interface for sustainable development.

7. Under-Secretary-General for Economic and Social Affairs and Secretary-General of the 2012 UN Conference on Sustainable Development emphasized that since the Industrial Revolution, science and technology have assisted humanity in an endless quest for material prosperity. Yet, at the same time, one fifth of humanity is severely deprived and unable to fulfill its basic need for food, water and sanitation. Humanity is now pushed against the carrying capacity of the planet. As a whole, humanity has failed to view itself as an integral part of Nature. It is time to say goodbye to the old model of growth, fuelled by inefficient, wasteful, environmentally and socially unsustainable exploitation of resources. It is time to regain balance and pursue a sustainable path, taking into account the Earth' regenerative and carrying capacities.

8. The Deputy Permanent Representative of the Plurinational State of Bolivia highlighted that the time has come for the UN to listen to the voice of science. He recalled that science, in general, is committed to disseminating inconvenient truths that are often the result of lengthy and detailed research. He further stated that as long as humankind continues to contribute to the irreversible collapse of the Earth System, the UN needs to face, today more than ever, such inconvenient truths. By continuing to ignore the many alerts emanating from science regarding the precariousness of life on earth, humankind is failing to take timely action to avoid the global disaster foretold by scientists. The present Dialogue must guide the international community to understand and come to terms with humanity's contemporary challenges. The international community must finally accept the importance of preserving the regenerative capacity of nature and, by acting responsibly, preserving the most important foundations of human existence.

9. Dr. Brian Czech opened the Dialogue and introduced the panellists. The panellists made their presentations and upon conclusion the floor was opened for delegations to make their statements and addressed their questions to the panellists. Several delegations made interventions and put forward questions on the issue of economic growth, rights of nature and, the regenerative capacity of the Earth. Further information regarding the Dialogue including its webcast can be found at:

<http://www.uncsd2012.org/rio20/index.php?page=view&type=13&nr=840&menu=46>

### **III. Highlights of the Presentations made by the Panellists**

10. The first panellist, Owen Gingerich, Professor Emeritus of Astronomy at Harvard University, held up two ball bearings to demonstrate the vast scale of our cosmological environment, and outlined the history of the universe from the Big Bang onward. Ever since Nicolaus Copernicus described Earth as just one of a family of planets orbiting the Sun, "human beings have wondered if there are other habitable planets cycling around other stars, and whether habitable planets might indeed be inhabited by other species." Their wonder continues, along with a project of technological and cultural evolution that has separated humans even from other Earth inhabitants. Indeed, Homo sapiens have evolved to the "Lamarckian Divide," beyond which more information can be carried in our brains than in our DNA. The pace of this cultural evolution has been dizzying, as our great great grandparents would have

been more at home in the world of Christopher Columbus and Nicolaus Copernicus than our world of 2012. Even when Professor Gingerich was a graduate student, lasers were unknown; today he has a dozen in his house. Passenger pigeons, Irish elk, giant moas... all gone for good. "We are at a perilous point where our knowledge, our powers, and our masses have the newly acquired capability to irredeemably wreck our environment. Never has more been asked of diplomacy."

11. Dr. Mark Lawrence, Director of Sustainable Interactions with the Atmosphere (SIWA) at the Institute of Advanced Sustainability Studies in Potsdam, Germany, followed with a description of the Anthropocene epoch. Human effects on the planet include unintentional (but not necessarily unknowing) impacts due to activities in the energy, manufacturing, transport, among other sectors have resulted in air and water pollution, soil degradation, noise and electromagnetic pollution. There are also numerous intentional impacts, such as urban development, landscaping, large-scale agriculture, deforestation, and damming of rivers. Even larger endeavors are contemplated, especially "climate engineering," which urgently needs to be assessed for impacts and risks, and for which governance structures need to be developed. Through their collective impacts, humans are shaping the face of the Earth and its atmosphere on geological time scales; thus the designation "Anthropocene" to characterize a new epoch succeeding the Holocene. But when was the starting point: thousands of years ago with the advent of agriculture, or more recently with the industrial revolution? In either case, human impacts are embedded in the complex Earth System of atmosphere, lithosphere, hydrosphere, cryosphere and biosphere. The human effects are so numerous and dominant as to constitute an "Anthroposphere" that govern or disrupt the interconnected cycles and functions of the natural Earth System spheres. Moving toward a sustainable Anthropocene, in which technology and our environmental consciousness evolve in step with each other, will require close, interdisciplinary interaction among researchers, policy makers and civil society.

12. Pat Mooney, co-founder and executive director of ETC group, an international civil society organization headquartered in Canada, proposed a perspective on technology for the Anthropocene. Perhaps the technological issue of this epoch is not so much the generation of "know-how," but rather the prudent identification of "know what" and "know why," as in what issues shall we direct our technological progress toward, and which basic principles should guide these decisions? During the Anthropocene, do we yet have the luxury of large expenditures on research and development toward the marginal improvement of consumer goods? Or do we marshal our technological forces toward restoring the harmony of atmosphere, hydrosphere, and biosphere? Such questions fall under the rubric of "technology assessment," with a rich history intertwined with that of ecological economics.

13. The foreboding scope and expansion of the Anthroposphere was then put in an economic context by Joshua Farley, Professor of Community Development and Applied Economics at the University of Vermont. Harmony with Nature, vis-à-vis economics, entails underpinning economics with scientific and moral foundations. Without basic laws of physics and ecology, limits to growth are easily overlooked. Meanwhile, without a moral foundation, principles of economics may easily be misapplied. For example, the principle of diminishing marginal benefits establishes that more human benefit ensues from poverty alleviation than from increasing the consumption of goods and services by the already-wealthy. Yet without a moral

foundation, diminishing marginal benefits may only lead producers (and advertisers) to cater to new markets in otherwise satiated societies. Properly grounded, a more ecologically informed economics provides clear rules for sustainability: renewable resource extraction cannot exceed the regeneration rate, pollution outflows cannot exceed absorption capacity, neither extraction nor pollution can threaten essential ecosystem functions, and essential non-renewable resources cannot be depleted faster than the development of their substitutes.

14. Brian Czech concluded the presentations with a focus on the ecological macroeconomics of biodiversity conservation, connecting the session directly with Rio+20 preparations. It is too often overlooked that "economic growth" means increasing production and consumption of goods and services in the aggregate. It entails increasing population and/or per capita consumption and is indicated by increasing GDP. Therefore, growing the solar panel or other "green" sectors is not economic growth; it may or may not accompany increasing production and consumption in the aggregate. Economic growth, indicated by increasing GDP, proceeds at the competitive exclusion of non-human species in the aggregate. This fundamental conflict between growth and biodiversity conservation cannot be reconciled via technological progress because, all along in the concurrent processes of economic growth and technological progress, economies of scale are depended upon for maintaining the economic surplus required for financing research and development. Serious approaches to biodiversity conservation and harmony with nature entail serious alternatives to growth. The two basic alternatives are recession, which is unsustainable, and the steady state economy, the sustainable option. Member states are asked to consider a new age in economic diplomacy centered around "steady statesmanship."

#### IV. Recommendations

15. In light of the upcoming UN Conference on Sustainable Development, commonly referred to as Rio+20, to be held in Rio de Janeiro, Brazil, from 20-23 June 2012, and recognizing that:

- a) We are living in the "Anthropocene", the name for a new geological epoch recognizing that humans are shaping the face of the Earth and its atmosphere through manifold impacts, including the unintentional side effects such as air and water pollution, soil degradation, noise and electromagnetic pollution, which result from activities in the energy, manufacturing, transport, among other sectors, as well as numerous intentional impacts, such as urban development, landscaping, large-scale agriculture, deforestation, and the damming of rivers;
- b) Humankind is at a perilous point where knowledge, powers and masses have the newly acquired capability to irredeemably wreck the environment;
- c) We must take into account the dramatic impact of human activities on the Earth System widely acknowledged by the United Nations, the international and scientific community, major groups and other stakeholders worldwide;

The scientists that participated as panellists in the Dialogue on “Scientific findings on the impacts of human activities on the functioning of the Earth System”, put forward the following recommendations for consideration of Member States:

- a) Enhance both research and public awareness of the highly complex Earth System, to better understand how the anthroposphere interacts with the atmosphere, lithosphere, hydrosphere, cryosphere and biosphere, and which will require close, interdisciplinary interaction among researchers, policy makers, civil society, and the public at large.
- b) Take rapid action on high leverage activities to counteract climate change, including supporting the implementation of known mitigation options for reducing short-lived climate-warming pollutants (“SLCPs”) such as soot and ozone, which are detrimental to human health, agriculture and ecosystems, and which together make up about 30% of the current global warming. Open up the public debate of “climate engineering” measures that have been proposed around the world, supported by careful assessments of their associated impacts and risks, leading to governance structures that urgently need to be developed.
- c) Support the goal of greater Harmony with Nature through efforts to improve the entire “Cascade of Harmony”, supporting the development of greater harmony with and between ourselves and our societies, which will help us move toward a sustainable Anthropocene, in which technology and our environmental consciousness evolve in step with each other.
- d) Acknowledge that existing economic models focus on GDP growth and ignore the numerous social indicators for assessing collective progress. Markets cannot be counted upon to spread technological advancements. A more ethical approach to economics must be discussed.
- e) Reevaluate society’s effect on the environment and recognize that the current economic paradigm is unsustainable, regardless of potential technological advancements.
- f) Recognize the unsustainability of perpetual economic growth on the planet, as well as the disharmony that economic growth causes to Mother Earth, nation-states with lower rates of per capita consumption should encourage the G8 and other wealthier nations to transition quickly from the goal of economic growth to the goal of a steady state economy with stabilized per capita consumption. In addition, all nations should be striving for population stabilization.
- g) Rio+20 offers a real opportunity to strengthen democracy and peoples’ participation within the UN system. Nations must take a crucial step forward by establishing a pathway for precautionary, inclusive technology evaluation as well as to restore social policy to socioeconomic and environmental problems and make sure that technological ‘know-how’ is accompanied with humankind’s capacity to ‘know what’ and ‘know why’.