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Sustainable development

Harmony with Nature

Report of the Secretary-General

Summary

The present report is submitted pursuant to the request of the General Assembly in its resolution [67/214](#). In that resolution, the Assembly also requested that the President of the Assembly convene, at the sixty-seventh session of the Assembly, a third interactive dialogue on Harmony with Nature during the commemoration of International Mother Earth Day on 22 April 2013, and requested the Secretary-General to submit to the Assembly at its sixty-eighth session a report on the implementation of the resolution, to be included also as an input for the discussion of the post-2015 United Nations development agenda, taking into account the three dimensions of sustainable development.

* A/68/150.



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I. Introduction

1. The General Assembly, in its resolution [67/214](#), entitled “Harmony with Nature”, requested the President of the Assembly to convene, at its sixty-seventh session, an interactive dialogue on the subject, to be held at the plenary meetings of the Assembly to be convened during the commemoration of International Mother Earth Day on 22 April 2013, with the participation of Member States, United Nations organizations, independent experts and other stakeholders, and to submit to the Assembly, at its sixty-eighth session, a report on the implementation of that resolution, to be included also as an input for the discussion of the post-2015 development agenda.

2. The purpose of the interactive dialogue of the General Assembly on Harmony with Nature was to examine different economic approaches, in the context of sustainable development, in order to further a more ethical basis for the relationship between humanity and the Earth. In the outcome document of the United Nations Conference on Sustainable Development, “The future we want” (resolution [66/288](#), annex), which calls for holistic and integrated approaches to sustainable development, Member States and other stakeholders acknowledged that “Mother Earth” is a common expression in a number of societies and noted that some countries recognize the rights of nature in the context of the promotion of sustainable development.

3. With regard to the ongoing discussion of sustainable development, neoclassical economics has a tendency to assume that human well-being increases with the accumulation of goods and services, while ecological economics, which recognizes that our well-being depends to a large extent on economic development, stresses the negative impact of our unbalanced relationship with nature. Ecological economics thus paves the way for the recognition that sustainability is a multifaceted goal that includes economic, social and environmental dimensions. It points to the need to ensure the resilience of ecological and socioeconomic systems by conserving and investing in them.

4. In the field of ecological economics, the use of natural resources is measured in terms of collective well-being. Ecological economics attaches great value to healthy societies, integrated with a thriving natural world, including for intergenerational equality. A number of Member States have already adopted this perspective and have recognized the rights of nature in their laws as being vital to the promotion of sustainable development.

5. It is universally recognized that in order to achieve a balance between the economic, social and environmental needs of present and future generations it is necessary to foster a universal respect for the Earth system and its species, and to accept our responsibility to restore the health and integrity of the planet’s ecosystems.

6. As recognized at the United Nations Conference on Sustainable Development, there is a need for a more comprehensive approach to determining our collective well-being and development. In the years to come, ecological economics needs to inform our thinking on economic policies, in a way that ensures collective well-being.

7. In his statement delivered at the interactive dialogue on Harmony with Nature, the Secretary-General stressed that climate change is a real and growing problem and that the unsustainable exploitation of natural resources, often driven by greed, was eroding the planet’s fragile ecosystems: biodiversity is increasingly being lost; more

and more species are disappearing; short-sighted commercial practices are depleting fish stocks; and acidity in the oceans is threatening the whole marine food chain.

8. If development is to be truly sustainable, and if humankind is to coexist in a more holistic relationship with the Earth, it is vital that natural systems are taken into account and natural resources managed in a sustainable way. This has been recognized at all major summits and conferences dealing with this issue from the United Nations Conference on Environment and Development in 1992 to the United Nations Conference on Sustainable Development in 2012.

9. Simultaneously, we must continue to seek economic efficiency and good economic decision-making, which is not possible if all costs and benefits are not considered. These externalities, including the depletion of natural resources and the impact of pollution and climate change and the loss of biodiversity on human well-being are not defined as costs. They are not, therefore, included in the price of products. Capturing this cost in the marketplace would provide a powerful incentive in the move towards sustainability, and would also make good economic sense. If this is to happen, the international community needs to discuss these issues and embrace sustainability as a guiding principle in development.

10. The following chapter will address the degree to which nature has been marginalized in the international discourse on the environment and how economic development and the field of economics have continued without due regard for nature, making the achievement of a holistic form of sustainable development more difficult.

II. The social construction of nature

11. Concepts of nature range from the basic elements of the natural world, trees, rivers and animal life, to how our world came into existence, to the world that exists without human beings or human civilizations, to the universe beyond our home planet, in all its staggering complexity. Nature refers to life in general and its presence is found everywhere — in the metaphysical, subatomic and cosmic realms. As a concept, it has existed since the beginnings of human history.¹

12. To most observers, nature is difficult to conceive in a simple, objectifiable way. Given all the interconnections between what is perceptible to our senses and what is only conceivable to the mind, regaining and maintaining harmony with nature will require knowledge not only from scientists, but also from philosophers, poets and others whose studies, imaginations, intuitions, spiritual revelations and inspirations offer insights into the intrinsic value of nature.

13. In his final book, the late philosopher Ronald Dworkin explained that what we call nature, the universe as a whole and all its parts, is something of intrinsic value and wonder. Nature is the locus and nutrient of our physical lives, providing transcendental value in what may seem otherwise transient and dead.²

¹ Barbara Baudot, “Nature: The Lost Sheep in the World Debate on the Environment”, delivered at the New Hampshire Institute of Politics, Saint Anselm College (April 2013) and at the Fletcher School of Law and Diplomacy (September 2012) (unpublished).

² Ronald Dworkin, *Religion without God*, Harvard University Press, 2013.

14. Because its physical and metaphysical dimensions are so closely intertwined, it is difficult to provide a concrete definition of nature. Scientists, philosophers and poets have evoked a sense of nature, yet it continues to be shrouded in mystery and enchantment. It is up to the international community, with its growing knowledge and understanding, soul and reason, to seek ways of healing the planet.

15. Hope remains that the damage done to the Earth can be reversed, and that hope has found a home in the science of ecology, which includes both the non-living world and the world of humans. Any ontological difference between what was once called the mineral kingdom, the plant and animal kingdoms and the kingdom of man has vanished: the scope of the idea of ecology is universal.

16. In the early 1970s, after three decades of teaching philosophy at the University of Oslo, Arne Naess, one of the founding fathers of environmental philosophy, and the man who coined the term “deep ecology”, published a short paper called “The shallow and the deep, long-range ecology movement”, in which he stated that there are two ecology movements. One is chiefly concerned with pollution, the depletion of natural resources and the usefulness of the Earth for humans (anthropocentrism). The second is concerned with the richness, diversity and intrinsic value of all the natural world — this is deep ecology.

17. Deep ecology is rooted in the basic concept that every living thing, animal and plant, has an equal right to live and flourish. Mr. Naess, in one of his last essays, published before his death in 2009 at the age of 96, stated:

“We are living on an incredibly beautiful little planet, but our human existence is threatened. If we are to survive we have to learn to think differently. The thinking for the future has to be loyal to nature. It must encompass all humans and all living creatures, because everything alive, in itself, has a value.”

III. The emergence of the environment as a human construct

18. The environment is a relatively recent concept, dating to the early years of the nineteenth century with the growth of industrialization and the modernization of the world economy. In this view, nature and the resources it provides, are seen in a utilitarian fashion, as raw materials for our use. “The environment” as a concept has greater political implications than “nature”, and our consideration of nature, in the shadow of that concept, has been set aside, and nature taken for granted.

19. Yet it is precisely the values associated with the preservation of nature that have inspired recognition that the commercial exploitation of the natural world is harmful. Nature can inspire an appreciation of the value of happiness and satisfaction of the human spirit. Moreover, in accepting nature as the source of life, as life itself, we might be brought to realize that it cannot be protected in a piecemeal fashion.

20. In the nineteenth century, numerous thinkers and political figures, East and West, documented their appreciation of the intrinsic value of nature. Their work was addressed in detail in the three previous reports of the Secretary-General on harmony with nature ([A/65/314](#), [A/66/302](#) and [A/67/317](#)). At the dawn of the industrial revolution, they warned that the rapid changes in agricultural and industrial technology posed serious threats not only to the quality of life on the planet but to civilization itself.

21. Max Weber, the German sociologist, foresaw that a general disenchantment would emerge in the modern industrial era, particularly in Western civilization. In the words of Richard Jenkins, disenchantment means that “humankind believes that it can, in principle, master all things by calculation”.³ Disenchantment is the result of the evolution of science and technology, by which nature has been reduced to a tool for human improvement and material development.

22. Compounding this widespread disenchantment is the recognition that some segments of the population, notably city dwellers, suffer from “nature deficit disorder”. Lacking exposure to and experience with nature, many city dwellers, given their surroundings, have grown up without sufficient contact with the grandeur of the natural world or knowledge of its multilayered complexity and wonder — a situation that raises serious concerns for the future.

23. Richard Louv, the journalist and founder of the Children and Nature Network, who coined the concept of “nature deficit disorder”, believes that many children are prone to such a disorder, which is likely to pose a bigger problem in the future:

“An increasing pace in the last three decades, approximately, of a rapid disengagement between children and direct experiences in nature ... has profound implications, not only for the health of future generations but for the health of the Earth itself”.⁴

24. Symptoms of this disorder are to be found not only in developed but also in developing countries. Surely, many of the strongest environmental advocates are those who have had a great deal of exposure to the wonders of the natural environment in childhood.

25. In response to the excesses of contemporary society, as reflected in our unsustainable patterns of production and consumption, initiatives are in place to promote sustainable living by organizing human life to promote ecological resilience. The idea of “transition towns”, forwarded by Louise Rooney and Catherine Dunne, is a response to the relentless exploitation of natural resources, an alternative offering smaller, local-scale communities that are less reliant on long supply chains and fossil fuels. The ideas behind transition town initiatives vary, but in general they are intended to counteract the idea that growth should not continue to be the sole goal of economic choices and to support local and community-shared production and clean energy efforts that strengthen community relationships and stimulate well-being, social justice and resilience. Such initiatives clearly reveal a growing realization that economic policies must be inclusive and must respect the environment.

26. As of May 2013, more than 1,100 transition town initiatives were identified in 43 different countries.⁵ Some initiatives, such as the Kinsale energy descent action plan 2021, written by the students of Kinsale College of Further Education, establish practical and detailed steps towards a more sustainable livelihood, notably in relation to energy and fossil fuels reduction, food and education.

³ Richard Jenkins, “Disenchantment, Enchantment and Re-Enchantment: Max Weber at the Millennium”, *Mind and Matter*, vol. 10, No. 2, 2012.

⁴ See Richard Louv, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, Algonquin Books, 2005.

⁵ See <http://www.transitionnetwork.org>.

27. From the above, it is clear that it is possible to find practical solutions to our current issues and to shift from a consumer society to a broader, community-oriented sustainable lifestyle, in harmony with nature.

IV. Environment on the international agenda

28. The United Nations Conference on the Human Environment, held in Stockholm in June 1972, established the environment on the international agenda. The Conference was first proposed by Sweden at a time of heightened concern about acid rain, pollution in the Baltic Sea and the rising levels of pesticides and heavy metals in fish and birds, at a time when it was realized that industrial wastes have cross-border implications. Countries discovered that their environments were not self-contained units but were affected by the actions taken by others throughout the world.

29. The different aspects of the environment that are being addressed in international negotiations are physical, social and political, and they thus lend themselves to empirical assessment and measurable progress. The following three different worldviews regarding the use of the term “the environment” further explain this political reality.

Environment: our surroundings

30. The use of the term the environment referring to objects or regions was not common before the nineteenth century, and then only when it was used to convey an aesthetic appreciation of one’s surroundings. It was not until the second half of the twentieth century that the term evoked concern about the exhaustion of resources and contamination. Politically, this concept is now manifested in environmentalism, defined in the Oxford Dictionary of Environment and Conservation as “concern with the preservation of the environment, especially from the effects of pollution; the politics and policies associated with this”. Thus, scientifically stated, the environment refers to the physical, chemical and biotic conditions surrounding a living organism.

Environment: the aggregate of the social and cultural conditions that influence the life of an individual or community (translated in this context to mean a sustainable development approach to peace, justice and the environment)

31. This approach, while not explicitly within the realm of modern environmental politics, was in use in the nineteenth century. It draws a distinction between the discourse focused on changes in natural resources and the biosphere in industrialized countries and the discourse introduced as part of the North-South dialogue. It was enshrined in principle 1 of the Stockholm Declaration adopted in 1972 at the first United Nations Conference on the Human Environment:

“Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations.”

32. Subsequently, socioeconomic development was inextricably linked to debates on international environmental policies. It is embodied in the idea of sustainable

development, which connects protection of the environment with socioeconomic progress in a strategy for change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change all work together to enhance society's current and future potential to meet human needs and aspirations.

Environment: physical, chemical, and biotic factors that impact an organism or an ecological community ultimately determine its form and function

33. The third perspective builds on an ecological vision of the environment. This understanding derives from notions of ecology, emerging only in the late nineteenth century. The definition of ecology in the Oxford Dictionary of Environment and Conservation, which defines ecology as the science of the economy of animals and plants, that branch of biology which deals with the relations of living organisms to their surroundings, their habitats and modes of life, captures this view. This vision sees earth's inhabitants and the environment in a symbiotic relationship that must be preserved.

34. Thus a new category of problems, the "global issues", emerged. The Stockholm Conference was the prelude to a series of significant United Nations meetings through the 1970s which recognized that national concerns and situations are interrelated, and that this interrelated world operates under a number of common constraints.

35. It was only in the course of the 1970s, with the additional impact of the oil crisis, that Governments started to recognize that continued growth depended not only on capital formation or skilled manpower but also on the long-term availability of a viable natural world (or natural resources). In introducing the report of the World Commission on Environment and Development, "Our Common Future", to the General Assembly in 1987, Gro Harlem Brundtland described the environment as the place where we all live; and development as what we all do in attempting to improve our lot within that abode.⁶ Her characterization of the environment combined economics and ecology.

36. The United Nations Conference on Environment and Development, held in Rio de Janeiro, Brazil, in 1992, served to develop a programmatic approach to environmentally sound and sustainable development through the adoption of Agenda 21. The principles behind Agenda 21 are set out in the Earth Charter, which "seeks to inspire in all peoples a sense of global interdependence and shared responsibility for the well-being of the human family, the greater community of life, and future generations".⁷ Nevertheless, in the outcome documents of the Conference, humans remained at the centre of the idea of the environment.

37. The next important international conference that addressed the environment was the World Summit for Sustainable Development in 2002, in Johannesburg, South Africa, at which Member States reaffirmed that the survival of humankind is dependent on a healthy environment.

38. Ten years later, in 2012, the outcome document of the United Nations Conference on Sustainable Development served as another reaffirmation of this

⁶ See [A/42/427](#), annex.

⁷ See <http://www.earthcharterinaction.org>.

approach to sustainable development, recognizing that it must build on economic, social and environmental considerations and priorities. The document reinforced a human-centred view of the environment.

V. Development through environmental transformation

39. Through the development process, the potentialities of an object or organism are advanced and improved upon. In the last quarter of the eighteenth century, Justus Moser, the conservative founder of social history, used the German word *Entwicklung* to describe the gradual process of social change.

40. In the 1800s, *Entwicklung* began to be used as a reflexive verb. Self-development became fashionable, and development became central to the work of Karl Marx, which he described as a historical process that unfolded in the same way as natural laws. To some extent, both the Hegelian concept of history and Darwin's concept of evolution have been interwoven into our concept of development.

41. Development became a powerful force, employed by politicians to catalyse the industrial mode of production. Development came to define a linear approach to social evolution.

42. English publications in the latter part of the nineteenth century framed development in the context of evolution, and a number of authors introduced evolution in the titles of their books, notwithstanding the fact that they continued to use development in their texts as the principal operative term.

43. By the beginning of the twentieth century, a new use of the term became widespread. "Urban development" has stood, since then, for a specific manner of reshaping urban surroundings based on the massive, homogenous industrial production of urban spaces.

44. Throughout the century, the meanings associated with urban development and colonial development transformed the meaning of development, and it is now a word whose significance depends on the specific context in which it is employed.

45. Development cannot delink itself from the words with which it was formed — growth, evolution, maturation. Similarly, those who now use the word cannot free themselves from a web of meanings that impart a certain blindness to their language, thought and action. The word indicates that a society or an individual is doing well because there is evidence of progress in line with a necessary, inevitable, universal law towards a desirable goal. Development retains, to this day, the meaning coined a century ago by Ernst Haeckel: "Development is, from this moment on, the magic word with which we will solve all the mysteries that surround us or, at least, that which will guide us towards their solution".⁸

46. For two thirds of the Earth's population, this positive meaning of the word development, profoundly rooted after two centuries of its social construction, is a reminder of the current undesirable and undignified condition of many societies. In trying to escape this condition, there has been a tendency for societies to strive to become part of the mass production and consumption system.

⁸ Wolfgang Sachs, ed., *The Development Dictionary: A Guide to Knowledge as Power*, Zed Press, 2012.

VI. Economic growth as the current paradigm of development

47. The word economy can be traced back to the Greek word *oikonomos*, “one who manages a household”, derived from *oikos*, “house”, and *nemein*, “to manage”. From *oikonomos* was derived *oikonomi*, which had not only the sense of “management of a household or family” but also includes concepts of “thrift”, “direction”, “administration”, “arrangement”, and “public revenue of a state”. The first recorded use of the word economy, found in a work possibly composed in 1440, describes “the management of economic affairs”, in this case, of a monastery. Today, the use of economy most frequently refers to the neoclassical economic system of a country or an area, an idea which was not developed until the nineteenth or twentieth centuries.

48. Over the centuries, the meaning of development was increasingly reduced to economic growth. The idea that development consisted of growth in the income per person in economically underdeveloped areas was first proposed by W. Arthur Lewis in 1944 and incorporated into the Charter of the United Nations in 1947.

49. Lewis’ 1955 dictum that “our subject matter is growth, and not distribution” reflects the mainstream emphasis on economic growth that permeated the whole field of development thinking. In 1957, Paul Baran, an influential development economist, wrote on the political economy of growth and defined growth or development as the increase in the per capita production of material goods.

50. The First United Nations Development Decade of the 1960s considered the social and economic aspects of development separately, but there was a change with the Second United Nations Development Decade of the 1970s, which called for a unified approach to development and planning, which would fully integrate the economic and social components in the formulation of policies and programmes.

51. The above notwithstanding, the 1970s saw a slow evolution in the opposite direction: dispersion. Major issues, such as the environment, population, hunger, women and employment, were successively brought to the forefront. Every issue was pursued along an independent path, concentrating both public and institutional attention.

52. The question of a unifying principle continued on a different front. In 1974, the Cocoyoc Declaration emphasized that the purpose of development should not be to develop things, but to develop man. According to the declaration, any process of growth that did not lead to the fulfilment of the basic needs of food, shelter, education, employment or health care — or even worse, disrupts them — was a travesty of the idea of development.⁹ Some of these ideas were expanded in the proposals of the Dag Hammarskjöld Foundation, which suggested in 1975, another manner of development, human-centred development.

53. The next decade, the 1980s, was called “the lost decade for development”. For many countries the “adjustment process” meant abandoning or dismantling previous achievements in the name of development, understood in a narrow fashion. By 1985, a post-development age seemed to be in the offing.⁸ Today, 28 years later, we are again calling for a new development agenda, the post-2015 development agenda.

⁹ See the Cocoyoc Declaration, adopted at the United Nations Environment Programme/United Nations Conference on Trade and Development Symposium on Patterns of Resource Use, Environment and Development Strategies, 8 to 12 October 1974, UNEP Series A/C.2/292.

54. The 1990s, by contrast, gave birth to a new development ethos that followed two clearly distinguishable lines. In the North, it called for redevelopment, that is, the development of what had been poorly developed or was now obsolete. In the North, public attention was captivated by the speed and the conditions under which what had been developed could be destroyed, dismantled or substituted (for example, nuclear plants and poisonous pesticides). In the South, redevelopment also required the dismantling of what was left by the so-called adjustment process.

55. Conceptually and politically, redevelopment took the shape of sustainable development, as defined and described in the above-mentioned report of the World Commission on Environment and Development, "Our Common Future". But in its mainstream interpretation, sustainable development has often been conceived as a strategy for sustaining economic growth, not for supporting the flourishing and the maintenance of an infinitely diverse natural and social life. Sustainable development, as originally conceived, did consider the concepts of holism, resilience and equity, but there has been a failure to operationalize a version of sustainable development that embraces those fundamental concepts. Primarily, this is because we have retained models for economic growth that ignore these principles and that discount the future cost of goods and services based on their utility in today's market. This ignores the incalculable value that nature offers us, both today and for future generations.

56. The founding fathers of economics saw in scarcity, which connotes shortage, want, insufficiency and frugality, the keystone for their theoretical constructs of economics.

57. The "law of scarcity" was construed by economists to denote the technical assumption that man's wants are great, not to say infinite, whereas his means are limited, though improvable. The assumption implies choices over the allocation of means (resources). This fact defines an economic problem whose solution is proposed by economists through the market.⁸

58. Another key deficiency of the current market system, as explained by Ian Mason, the Principal of the School of Economic Science in London, is that key factors of production such as land are considered to be irrelevant. This is simply not the case, as material wealth, the things we use to satisfy material desires as well as to feed, clothe and shelter ourselves, has only one common source: it is all produced by human effort applied to land. Every single atom of material used for human production and consumption has its origins in the Earth. This was well-known in ancient times, and in the same way it is still understood by many indigenous cultures today.¹⁰

59. Nowhere is this more obvious than in the food production sector. According to the ETC Group (also known as the Action Group on Erosion, Technology and Concentration), for the past half-century we have bought into the assumption that the prevailing western model of food production and consumption, that is, the industrial food chain, is inevitable and the answer to food security. This has fuelled increases in meat and dairy consumption, obesity and the need for fertilizers and pesticides that harm humans and nature. Most people do not realize that only 30 per cent of all food consumed is produced through the industrial food chain, whereas the

¹⁰ Ian Mason, "One World, One Wealth: Economics, Justice and Rights for Nature", third interactive dialogue on Harmony with Nature, 22 April 2013 (www.harmonywithnatureun.org).

remaining 70 per cent is produced by small farmers.¹¹ This should prompt reflection on how best to achieve food security.

VII. Constructing a new paradigm: harmony with nature

60. An important aspect in the construction of a new paradigm is the redefinition of humankind's needs and the recognition of the need to move beyond the unsustainable pursuit of ever-increasing economic growth without concern for social development and nature. Harmony with nature implies that people do not assume that they have unlimited resources or means. Rather, we must accept that there are certain limits to growth on a finite planet. This fact was first pointed out by Donella Meadows and others in 1972 and it is being echoed by ecological economists today.

61. Harmony with nature also calls for a rehabilitation of the human spirit, the concept of holism, and for its relevance as a factor in the pursuit of a lifestyle that respects the rights of nature. Human lifestyles must be respectful of ecological limits, and the limits of nature. This means adopting a new paradigm that includes harmonious relationships with nature.

62. The advancement of fuel-efficient machines, environmental risk assessment analyses, the close review of natural processes and other practical actions for greater sustainability are needed to help protect nature. Although these initiatives are important, it must nevertheless be recognized that societies have inherent tendencies to exploit nature, and that the exploitation is aimed solely at the goal of enhancing growth without due regard for the effects of such growth on the well-being of present or future generations. Calls for securing the survival of the planet often, upon closer inspection, are intended, rather, to ensure the survival of the marketplace.

63. Our practical actions for enhancing sustainability should be embodied within the framework of a new economics, addressing market failures that have ignored ecological implications and resulted in the increasing deterioration of nature as well as of the well-being of many human populations around the world.

64. A paradigm for a new economics must go beyond neoclassical and environmental economics and learn instead from the concepts of deep ecology, the rights of nature and systems theory.¹² Serving nature and recognizing its inherent significance should be part of the foundation of a new economic model that ought to factor into the complex dynamic interplay between all key drivers of sustainability, including justice, equity and rights for all the citizens of the world, and for the natural world from which they derive their existence.

65. As noted by Ian Mason in his presentation to the third interactive dialogue on Harmony with Nature,¹⁰ economics, as currently understood, produces many injustices, including great accumulations of wealth alongside widespread poverty and a natural environment that is systematically being destroyed to maintain profit margins. This calls for a thorough revision of the contemporary understanding of

¹¹ ETC Group, "Who Will Feed Us?: Questions for the Food and Climate Crises", communiqué No. 102, November 2009 (www.etcgroup.org).

¹² See Arne Naess, *The Ecology of Wisdom: Writings by Arne Naess*, Counterpoint Press, 2008; Robert Frazier Nash, *The Rights of Nature: A History of Environmental Ethics*, University of Wisconsin Press, 1989; and Donella H. Meadows, *Thinking in Systems*, Chelsea Green Publishing, 2008.

economics, and recognition of the fact that assuming infinite economic growth is not possible in a finite world. There is need to reorient our economic system to serve people and the planet better, as recommended by ecological economists. Mr. Mason also recommended the adoption of a duty of care for nature and each other as central to ethical economics, and the implementation of that tenet through recognizing and enforcing rights for nature, just as we enforce human rights.¹⁰

66. It has been proven that the damage to the intrinsic regenerative capacity of nature is impaired not only directly by overexploitation of a particular element of the natural world but also, indirectly, by damage caused to other related natural elements through ecological processes. For example, hydraulic fracturing, commonly referred to as fracking, is the process of drilling and injecting fluid into the ground at a high pressure in order to fracture shale rocks to release the natural gas inside. Each gas well requires an average of 400 tanker trucks to carry water and supplies to and from each well. It takes 1 to 8 million gallons of water to complete each fracturing job. The water brought in is mixed with sand and chemicals to create fracking fluid. In the course of each job, approximately 40,000 gallons of chemicals are used. Up to 600 chemicals are used in fracking fluid, including known carcinogens and toxins, including lead, uranium and mercury. Despite engineering safeguards, groundwater pollution has already been documented as a result of fracking activities, threatening dwindling fresh water supplies.

67. In recent years, and in the light of such pervasive activities, the public has been increasingly conscious of the manner in which nature continues to be treated, and violated, despite dire warnings by the scientific and medical communities regarding the health of both the planet and its inhabitants. Many people now acknowledge that nature has its own right to exist and thrive, just as humans do. People have begun to realize that the limits of nature are inviolable, and that human action needs to be restrained accordingly. This relationship is based both on science and ethics.

68. The Secretary-General, in his presentation to the third interactive dialogue, stated:

“When we threaten the planet, we undermine our only home — and our future survival. Fortunately, millions of people around the world recognize this problem. They are part of a growing movement for sustainable development. More and more Governments are hearing their calls for action. Bolivia [Plurinational State of] has adopted a legal framework that specifically protects Mother Earth. Ecuador’s Constitution recognizes the rights of nature. Many other communities around the world are translating their respect for the environment into measures that protect it.”¹³

69. Speaking at the third interactive dialogue, Linda Sheehan, the Executive Director of the Earth Law Center in California, stated that:

“the ethical qualities that create happy, prosperous homes — love, cooperation, friendship, duty — both arise from and create strong relationships. We have discarded these ethics, however, in favour of an economic system premised on separation and greed ... An essential element of this shift in perspective is

¹³ See third interactive dialogue on Harmony with Nature, 22 April 2013, available at: <http://www.harmonywithnatureun.org>.

realizing that relationships can flourish only if we recognize the inherent rights of their participants. Over time, we have learned that the denial of rights creates separation. As we came over time to acknowledge the rights of people who were formerly treated as property, we began to have full, thriving relationships with them. These lessons extend to the natural world. We are first and foremost Earth citizens and must recognize the rights of ecosystems and species to exist and thrive, if we are to flourish ourselves”.¹³

70. Ms. Sheehan further recalled that when the United Nations was drafting the Universal Declaration of Human Rights, the drafting committee had observed that the supreme value of the human person did not originate in the decision of a worldly power, but rather in the fact of existing. So too must we recognize the supreme value and rights of the natural world as arising from the fact of existing.¹³

71. In other parts of the world, subnational and municipal laws have been passed that recognize the rights of local natural systems to exist, thrive and evolve. Significantly, these laws reject the rights of corporations that would conduct unwanted harmful activities over the rights of local community members to live in harmony with each other and their environment. As noted by the Community Environmental Legal Defense Fund, such laws support a community’s rights to nurture its home rather than witness its destruction.¹⁴ In one example, in 2012, New Zealand recognized the rights of the Whanganui River and its tributaries.¹³

72. In order for a new economic system to be sustainable, it is essential that it truly sustain nature. Sustainability in this context involves the recognition of the limits of nature and the rights of nature, as well as the need for humankind to adhere to these beliefs. A new economic system can no longer treat nature simply as the source of raw materials for industrial production for the ongoing flow of ever more commodities and the indefinite accumulation of capital.¹³ Limits are not unidirectional. They work reciprocally between nature and society. Recognition of the limits of nature implies limits on society; the notion that no limits on society are necessary imply a breakdown in our respect for the limits of nature.¹⁵

73. At the third interactive dialogue, Fander Falconí, the National Secretary of Development Planning of Ecuador, advanced the idea that recognizing nature in our economic and social processes would translate into two fundamental aspects. The first would be to acknowledge the effects that thermodynamics have in human economic activity, effects that have been thoroughly studied by ecological economists. Scholars in this field believe that it is necessary to place biophysical limits on the irrational aspects of economic growth, aspects that are unsustainable from the perspective of science, and instead to visualize an economic system that operates in line with the workings of thermodynamics. Essential to this approach is the establishment of limits to human economic growth and acknowledgement of the rights and the limits of nature.¹³

74. The second aspect is to take into account social and individual behavioural patterns, particularly those found in the South, given specific aspects of wealth distribution, points of social fragility and cultural heritage. In this context, Mr. Falconí noted that the Constitution of Ecuador is the first in the world to grant

¹⁴ See <http://www.celdf.org>.

¹⁵ Vandana Shiva, “Resources”, in Wolfgang Sachs, ed., *The Development Dictionary: A Guide to Knowledge as Power*, Zed Press, 2012.

rights to nature and to implement them through a national plan for well-being, which contains a set of indicators, including an ecological footprint, to monitor national consumption levels.¹³

75. Also speaking at the third interactive dialogue, Jon Rosales, Associate Professor of Environmental Studies at Saint Lawrence University in New York, explained that the proper relationship between the economy and nature is one in which nature is the parent and the economy a subsystem of it. Science has already identified nature's limits, and has shown that economic activity must remain safe within those limits. The foundation of this relationship is best reflected in subsistence indigenous cultures that live in true harmony with nature, respecting ecological thresholds and living under a "home economics" system embedded in the land. Sharing is particularly important to many subsistence cultures, which is the reason why such cultures are often called "moral economies". Indigenous cultures long ago acknowledged the rights of Mother Nature, her nurturing abundance, her structural integrity and her limits.¹³

76. On the occasion of the 128th Assembly of the Inter-Parliamentary Union in Quito, Members of Parliament came together for a discussion on the theme "From unrelenting growth to purposeful development, 'Buen Vivir': New approaches, new solutions". The Quito communiqué adopted by the Assembly on 27 March 2013, stated that:

"In a finite world, the perennial cycle of increasing consumption and production that is at the heart of the current economic model is no longer sustainable. Growth alone is not the answer to the social, economic and environmental challenges of our time; in fact is becoming part of the problem. A different approach that focuses on well-being in all its dimensions is required if we are to evolve as a global community able to fulfil core human values of peace, solidarity and harmony with nature."¹⁶

77. Lin Harmon, the Dean of Environmental Law at Pace University School of Law in New York, recalled that the 1982 World Charter for Nature (General Assembly resolution 37/7, annex), in its general principles, stated that "Nature shall be respected and its essential processes shall not be impaired" and that "the principles set forth in the Charter shall be reflected in the law and practice of each State, as well as at the international level". Ms. Harmon noted that it was clear that the world community was still not abiding by the non-impairment principle. Laws and the current level of law enforcement were not sufficient to keep global temperatures from climbing and to prevent the collapse of ecosystems and species.

78. Environmental lawyers and scholars realize that, along with the human right to a healthy environment, the rights of nature must be examined and implemented more broadly to ensure our collective well-being — a step that some countries have already taken by starting to nurture nature as it nurtures us.

79. In February 2013, the documentary "Earth from Space", produced in extensive consultation with scientists at the National Aeronautics and Space Administration of the United States of America (NASA), showcased information conveyed by the 120 earth-observing satellites staring down at us from space. The data taken from these satellites and transformed into visual sequences reveal the intricate and

¹⁶ See <http://www.ipu.org>.

surprising web of forces that sustain life on Earth. From the microscopic world of water molecules vaporizing over the oceans to the magnetic field that is bigger than Earth itself, the data reveal the astonishing beauty and complexity of our changing planet.

80. In the narrative to the film, Pier Sellers of the NASA Goddard Space Flight Center states that the world can be seen as one huge system, all linked through the atmosphere and the oceans, rolling its way around the sun. The satellite data shows that we live in one interconnected system, and that different processes are happening in different parts of the world, monsoons in some parts of the world, desert storms in others.

81. Our success as a species has resulted in rapid population growth, and today our presence can be seen across 80 per cent of the world's landmass. As a species, we are affecting the different natural cycles that govern our planet. Many factors play a part in the dramatic changes that are taking place in the natural world around us, most notably in climate patterns, but most scientists agree that human activity is the main driving force.

VIII. Conclusion

82. Today, we find ourselves at another critical juncture trying to define a post-2015 development agenda. It will be critical that the agenda is aimed at sustaining nature rather than reducing it to a resource to feed our economic system. The word "resource" originally implied life. Its root is the Latin verb *surgere*, which evoked the image of a spring that continually rises from the ground. The concept thus highlighted nature's power of self-regeneration and called attention to its prodigious creativity. Moreover, it implied a traditional idea about the relationship between humans and nature: that since nature bestows her gifts on humans, they, in turn, must show their respect and strive not to do any harm to nature as the source of that generosity. In earlier times, "resource" therefore suggested reciprocity as well as regeneration.¹⁵

83. With the advent of industrialism and colonialism, however, a conceptual break occurred, and "natural resources" became those parts of nature that were required as inputs for industrial production and trade. With the capacity of regeneration gone, the attitude of reciprocity has also lost ground: we presume, falsely, that it is now simply human inventiveness and industry that impart value to nature.

84. In the discussions leading up to the formulation of the post-2015 development agenda, nature must be placed at the core of sustainable development. We must recover the ancient wisdom that gently cautioned that economic wealth is ontologically not convertible into life, a truth captured graphically in the oft-quoted Native American saying:

"Only when the last tree is cut, the last fish is caught and the last river polluted; when to breathe the air is sickening, you will realize that you can't eat money".

IX. Recommendations

85. Drawing on the foregoing analysis, the presentations made at the three interactive dialogues on Harmony with Nature and the outcome document of the United Nations Conference on Sustainable Development, entitled, “The future we want”, Member States are encouraged, at the sixty-eighth session of the General Assembly, to take into account the following recommendations:

(a) Further build up a knowledge network of well-respected practitioners, thinkers and academicians, who work in the cutting edge of their fields of natural and social sciences, including physics, chemistry, biology, ecology, economics, sociology, law, ethics, anthropology, medicine and linguistics, to advance the holistic conceptualization of a new economic paradigm that reflects the principles, drivers and values of living in harmony with nature, relying on current scientific information, particularly from centres of excellence on space science, which portray findings in a visual format;

(b) Encourage universities and research establishments to further advance a contemporary understanding of economics, taking into account the well-being of all of humanity and of nature, in accordance with both science and ethics;

(c) Recognize and guide care for nature and the fundamental interconnections between humanity and nature, including, as appropriate to national circumstances, through the introduction of enforceable statutes and constitutional provisions in keeping with the Rio principles and the outcome document of the United Nations Conference on Sustainable Development;

(d) Support and promote indigenous cultures that are already living in harmony with the Earth, and learn from them, and provide support for and promote efforts being made from the national down to the local community level to reflect the protection of nature in laws and governance systems and to implement those laws for the benefit of humans and the natural world;

(e) Promote broader measures of economic, social and environmental progress in policymaking, encourage and engage in the work of the United Nations Statistical Commission on broader measures of progress and follow up on the results and recommendations resulting from that work;¹⁷

(f) Showcase further and support, through the United Nations Harmony with Nature website (www.harmonywithnatureun.org), the work being undertaken by Member States, major groups and other stakeholders and the growing knowledge network on the subject, in keeping with paragraph 40 of the outcome document of the United Nations Conference on Sustainable Development, “The future we want”, in order to develop holistic and integrated approaches and actions that will guide humanity to live in harmony with nature and lead to efforts to restore the health and integrity of the Earth system;

(g) Include in the provisional agenda of the sixty-eighth session of the General Assembly a sub-item entitled “Harmony with Nature” as an input for the discussion of the post-2015 development agenda.

¹⁷ See E/2013/24, decision 44/114.