

Climate Change and Sustainable Development

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As citizens of Planet Earth, we must accept the fact that without forests, plants, and water resources there would be no life, no future, no us. It is therefore rather worrying that on a daily basis we are inundated with newspaper editorials, magazines articles, and academic journals which inform us that humanity is continuously and seriously harming ecosystems around the world.[1] The pollutants and harmful emissions we generate coupled with our overuse of natural resources are directly responsible for melting glaciers,[2] disappearing islands,[3] the decline of animal and plant species,[4] and growing deserts,[5] These issues, in turn, lead to a shortage of food resources and land, causing diseases, armed conflicts, and other problems.[6]

The concept “development” is frequently used in relation to discussions of progress worldwide. This term is often defined as an improved standard of living or social or societal improvement. The majority of development is calculated in terms of economic growth. The argument, which has dominated the international development agenda, is that if the financial inflow improves, so eventually will other societal spheres improve.[7]

However, when referring to economic growth as “development” it is often forgotten that the intensified use of natural resources, which are often tied to economic growth, can cause unrecoverable social and environmental problems, particularly in developing nations. Therefore it is quite unsettling that we are using natural resources equal to one and half the Earth’s yearly resource production for our essentials.[8] Given that world population is calculated to raise to 9 or 10 billion before stabilizing, the current consumption trend suggests that natural resources from three Earths will be used 2050.[9] This paradox is obvious; we have only one Earth. One Earth where 50% of the population live on less than 2.5 dollars a day and certainly cannot be forced to live on less.[10] How can this issue be rectified?

In discussing possible remedies, the notion “sustainable development” has arisen. Although defined in many ways, the most frequent definition is found in the “Brundtland Report” from 1987:[11]

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- *the concept of **needs**, in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of **limitations** imposed by the state of technology and social organization on the environment's ability to meet present and future needs.”*

Here we are given a more nuanced picture of “development”, where checks and balances (governance) are included to guarantee that everybody, including the poor, will have

equal access to opportunities. In theory this sounds easy; in practice and implementation, it is rather difficult.

Let's agree that climate change continues to occur over time. Our continued emissions and use of resources affect other countries and future generations. This highlights the critical need for "global governance"; a set framework of guidelines which individuals, corporations and states should all be accountable to and respect. As no global government exists, it falls on individual nations to arrange such governance. Thus far, there have not been many success stories and the debate has been driven by national agendas, personal and cultural values and by a "fairness" approach. Global meetings and conferences have often ended in disagreements about who should pay, be seen as responsible and/or spearhead actions. The process for implementing change continues to move at a slow pace. Proposals perceived as unfair by certain parties have neither been ratified nor implemented internationally or nationally.[12] Global sustainability has yet to be achieved.

It has been argued in meetings (see Kyoto Protocol) that developing nations should be allowed higher emission rates to catch up on developed nations because the wealthiest 20% of the world account for 75% of the total private consumption.[13] However, due to higher vulnerability (poor infrastructure, weak economies, technical skills and institutions, reliance on agriculture, etc.), developing nations cannot afford the luxury of delaying the implementation of critical environmental policies. Due to limited adaptive capacity, they are highly vulnerable to the interlinked issues such as crop failure, shortage of food, increased unemployment rates, increased competition for scarce resources, societal inequalities, armed conflicts and forced migration. [14] For instance, 15 million people in Bangladesh alone are at risk of being flooded every year. Sustainable development is urgent.

The connection between climate change and the need for sustainable development is obvious. To adapt to climate change we need functioning sustainable development strategies in developed and developing nations alike.[15] We critically need global mitigation policies to avoid further disasters caused by rising sea levels and extreme weather trends.[16] Simultaneously, we need local adaptation processes (new crops and irrigation systems, capacity improvement in public administration and civil society and higher considerations to local skills) to prepare societies for the changes yet to come.[17] It has been argued that a focus on adaptation will also lead to poverty reduction, increased production, and the realization of opportunities.[18]

In future processes, it is particularly important that nations and localities increase institutional integration between ministries, private and public sectors, and local, international, and non-governmental organizations, and corporations. As climate change affects everyone, every agenda, every society, every individual should be included in future processes to achieve sustainable development. This is the greatest and most important challenge of our time. We can do it, but we must work hard, and we need to start now.

[1] Boykoff and Roberts, 2007

- [2] Xu et al. 2009. Also see the Guardian article: <http://www.theguardian.com/commentisfree/2014/may/17/climate-change-antarctica-glaciers-melting-global-warming-nasa>
- [3] Australian Bureau of Meteorology and CSIRO, 2011
- [4] Thomas et al. 2003
- [5] Nicholson et al. 1998
- [6] 2005 Millennium Ecosystem Assessment (various chapters)
- [7] Beg et al. 2002:137
- [8] See: http://www.footprintnetwork.org/en/index.php/gfn/page/world_footprint/2014-06-24
- [9] See: <http://globalconsensus.wordpress.com/2009/08/29/world-population-is-stabilizing/> 2014-06-23;
http://www.footprintnetwork.org/en/index.php/gfn/page/world_footprint/2014-06-24
- [10] See: <http://www.globalissues.org/article/26/poverty-facts-and-stats> 2014-06-24
- [11] See: <http://www.iisd.org/sd/> 2014-06-23
- [12] Beg et al. 2002:137
- [13] See: <http://www.globalissues.org/article/26/poverty-facts-and-stats>
- [14] Smit and Pilifosova, 2007
- [15] Beg et al. 2002:130
- [16] See the IPCC report: Climate Change 2014 – Mitigation of Climate Change Website: <http://www.ipcc.ch/report/ar5/wg3/>
- [17] Adger, 2005
- [18] Beg et al. 2002

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2005 Millennium Ecosystem Assessment. See particularly chapter 5 about the relation of 'Eco-system conditions and Human Well-being' by Levy et al. Website: <http://www.millenniumassessment.org/en/Condition.html>