



# In Search of Three-win Solutions

## The Challenges of the 2012 UN Conference on Environment and Sustainable Development<sup>1</sup>

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### Introduction

The second Earth Summit, scheduled for 2012, will again meet in Rio de Janeiro at the threshold of the third great transition in the long co-evolution of the human species with the biosphere. The first transition, known as the ‘Neolithic revolution’ (Gordon Childe<sup>1</sup>), started twelve thousand years ago. It was marked by the domestication of several floral and animal species, the sedentarisation of human populations and the emergence of the first cities. The second transition, associated with the rise of fossil fuels, began at the end of the seventeenth century and led to the industrial revolutions that changed completely the face of our civilisations.

The present transition ought to free us, as quickly as possible, from our excessive dependence on oil and coal, so as to reduce the emissions of carbon dioxide, responsible for the warming of the atmosphere and the resulting deleterious climate changes. According to the Nobel Prize winner Paul Clutzen, we have entered a new geological era – the anthropocene era – in so far as human activities have grown to a point in which they have a significant impact on the Earth’s ecosystems.

It is up to us, passengers of the *Spaceship Earth*, to show that we are capable of acting as true *geonauts*,<sup>2</sup> preparing in the twenty-first century an orderly exit out of the oil age and, possibly, of the fossil energy age altogether. More generally, we ought to limit the ‘*destructive creation*’ so persuasively described by Schumpeter, even though the abyssal consumption disparities between the rich minorities and all those who barely survive at subsistence levels prevent us from stopping the material growth and moving to the stationary State visualised by John Stuart Mill<sup>3</sup>, whatever the tenants of the degrowth theory may say.<sup>4</sup> The fairer the income distribution, the lower will be the level of GNP at which it will be possible to stop the growth of material output; there are no limits for immaterial growth – services, cultural activities, etc.<sup>5</sup>

The capacity to anticipate is specific to the human brain<sup>6</sup> and planning is an important tool available to modern societies which ought to be revived in the present circumstances. This even truer in that we have moved from the age of the abacus to the age of the computer and that planning can be conducted by means of a quadripartite democratic dialogue between State, entrepreneurs, workers and organised civil society.

As a matter of fact, we must confront in our plans two simultaneous challenges: the already mentioned **climate change**, threatening in the long run the very future of humankind, and the

**scandal of poverty;** how many, among the passengers of the spaceship Earth, go to bed hungry, despite the fact that the current world production could satisfy everybody's needs if the distribution of wealth were less skewed?

That is why we must stick to **three-win solutions: socially inclusionary, environmentally sustainable and economically viable.** The latter is a precondition to see the other two objectives fulfilled.

A comment is in order here about the way in which the two challenges are intertwined. The poor are the first victims of climate change. Living from hand-to-mouth, they do not have the resources neither to mitigate nor to adapt to climate adversity. The Dutch may envisage costly public works to strengthen and raise the dikes that protect them from the sea, but the same cannot be said about the Bangladeshi, not to mention the inhabitants of the Maldives Islands.

## **From Stockholm to Rio de Janeiro**

The 2012 meeting must be placed in the historical perspective. It will meet forty years after the seminal Stockholm conference, which succeeded in putting the environment on the UN agenda and was followed by the creation of the UNEP. Many countries set up ministries of environment, some even changed their constitution. The World Commission on Environment and Development, presided by former Norwegian Prime Minister, Gro Harlem Brundtland, made an important contribution to the definition of sustainable development and set the stage for the 1992 Earth Summit, which met in Rio de Janeiro, with the presence of 110 heads of State and an impressive parallel forum organised by the civil society. The Rio meeting prepared an impressive Agenda 21.

However, this document did not have the deserved impact. After the fall of the Berlin Wall and the implosion of the Soviet Union, the neoliberal counter-reform took over the stage. The 2002 Johannesburg Conference was unable to reverse this trend. Some observers went as far as to say that Johannesburg, far from being Rio +10, was instead Rio -10.

The 2008 crisis and its aftermath again changed the setting in which the next conference will meet, once more in Rio de Janeiro. On the positive side, the myth of self-regulating markets has been seriously shaken, even though not altogether dismissed. Moreover, a crisis is always an opportunity for change. I am told that in Chinese, the word 'weiji' for crisis is built with two characters, the first meaning danger and the second opportunity.<sup>7</sup>

On the other hand, the European Union, up to now, has not managed to assist some of its most severely hit members. Furthermore, several countries are adopting austerity policies, oblivious of the fundamental tenets of Keynesianism. There is also the matter of the urgent need to clarify the difference between left and right wing interpretations of this doctrine: State intervention in times of crisis, financed from deficit, can pursue very different goals. from funding social housing to fostering the armament race.

Above all, the scientists from the Intergovernmental Panel on Climate Change (IPCC) are adamant: the time span left to mitigate the climate change is pretty short; we ought to think in terms of decades, at most.

All this underlines the importance of the forthcoming Rio meeting. Without going as far as to say that it will be the conference of the last chance, we cannot afford to waste this occasion to find a new course in the world economy and polity. In order to succeed, we ought to adopt a procedure that reduces the probability of deadlocks likely to appear in the piecemeal negotiations conducted among almost two hundred countries, as happened recently in Copenhagen.

In what follows, a three-pronged approach is suggested.

All UN member States ought to be invited to present in, say, two years comprehensive, long-term development strategies encapsulated in plans, making use of the following concepts:

- the ecological footprint, starting with the energy footprint;<sup>8</sup>
- the biocapacity enhancement;
- new energy paradigms characterised by greater sobriety and efficiency as well as substitution of fossil fuels by renewable energies;<sup>9</sup>
- the generation of opportunities for decent work, in the ILO acceptance of the term, with special reference to such themes as food and energy security, exploring the frontiers of the green and blue revolutions as well as the prospect for agroforestry, in order to move towards an economy characterised by low carbon emissions;
- housing, urbanisation and transport systems adapted to different ecosystems.

The next stage should consist in coordinating these plans so as to generate positive synergies between them.

In parallel, the United Nations should set up a well endowed UN Fund for Inclusionary and Sustainable Development, to assist the less developed countries. The fund would be financed by the proceeds of a tax on fossil fuels, supplemented by the transfer of, say, half a percent of the GNP of the developed countries to the less developed ones.

Finally, networks for S&T cooperation should be organised in accordance with a new geography, using biomes as a matrix and fostering in this way the cooperation among countries situated in low latitudes.<sup>10</sup>

This brings us back to the subject of the ICID 2010 Conference.

## **Some research priorities for semi-arid countries and regions**

The setting of biome-based, cooperative networks among countries sharing similar climatic conditions and natural resource endowments allows for making good use of cultural differences, learning from the partners' organisational settings, managerial practices as well as technical innovations.

The following subjects figure among priorities for cooperative research and exchange of experiences:

### **Water conservation and use**

For obvious reasons, each drop of water – the very scarce resource – ought to be conserved and rationally used and reused whenever possible. Hence the importance of equipping each hou-

shold with a cistern to store rain water, side by side with the construction of water reservoirs, from large ponds and *açudes* to subterranean installations that minimise water loss by evapotranspiration.

By contrast, along rivers, man-made reservoirs and canals in semi-arid regions offer exceptional conditions for highly productive and competitive orchards, vineyards, vegetable gardens, flower plantations and crops such as the sugarcane. The social impacts of these labour-intensive productions are at the maximum when the irrigated perimeters are managed by cooperatives of small producers.

Hence the paramount importance of the land reform agenda, indispensable for the progress of the ‘evergreen revolution’, in M. S. Swaminathan’s words, also known as the ‘doubly green revolution’. The difference between the first green revolution associated with the name of Norman Borlaug and the evergreen revolution lies in their social impact. The original green revolution only benefited those happy few with enough capital to buy seeds and fertilisers and with access to water for irrigation. The evergreen revolution is directed to the majority of small farmers from the first wave of the green revolution.

A third wave is in the offing, associated with the use of charcoal as catalyser of the metabolic processes in the soil and renamed for the occasion ‘biochar’.<sup>11</sup> Ancestral practices of some Indian tribes in the Amazon region, responsible for the emergence of fertile ‘*terras pretas*’, are being replicated now to set highly productive and vegetable gardens that demand less water.

As far as Brazil is concerned, we lack a precise estimate of the potential for irrigated agriculture in semi-arid regions. How many Petrolinas are still to come? How many small farmers can benefit from them, assuming that future irrigation perimeters will be allotted to small farmers organised in cooperatives?

## **Renewable energies and urbanisation**

Where water is not available, it is still possible to harness the abundant resource – solar energy – and, in many places, wind energy, putting to a productive use the vast expanses of land not suitable for agriculture and turning out vast amounts of energy far in excess of local needs. This surplus energy might be put to good use by establishing industries that transform raw materials coming from the neighbouring semi-arid and rain tropical areas and by fostering the development of urban centres, concentrating side by side with those processing industries all kinds of services – health care, education, research.

Drawing lessons from the negative experience of such countries like Egypt,<sup>12</sup> special attention ought to be given to protect scarce agricultural lands from being invaded by urban sprawl. It is easier and cheaper to build cities in the desert than to transform deserts into fields. The positive lesson coming from Egypt is that arid lands may prove rich in mineral resources and, as already mentioned, offer plenty of space to harness in favourable conditions solar and wind energy.

Urban settlements in arid and semi-arid lands raise many challenging problems to architects, urbanists and specialists in urban transportation systems, opening a vast field for a South-South exchange of experiences. Thanks to their research potential, Brazil and India stand as two potential locomotives of a network of countries with extensive semi-arid regions.<sup>13</sup>

Hopefully, the ICID Conference will make a decisive contribution to the consolidation of the network of countries confronted with the difficult challenge of fostering socially inclusionary and environmentally sustainable development strategies in semi-arid and arid regions. A similar approach ought to be followed for each of the major biomes.

## Notes

1. Paper prepared for the Second International Conference on Climate, Sustainability and Development in Semi-arid Regions, (ICID 2010), Fortaleza, state of Ceará, Brazil, August 16th – 20th, 2010.
2. Gordon Childe, *Man Makes Himself*, (London: Spokesman Books, 2003, 1st edition: 1936).
3. I borrow this neologism from Erik Orsenna, *Portrait du Gulf Stream. Éloge des courants*. Paris: Éditions du Seuil, 2005.
4. John Stuart Mill, *Principles of Political Economy* (first published in 1848).
5. The leading French author on the subject is Serge Latouche. See also Éric Dupin, “Enquête sur la décroissance, une idée qui chemine”, *Manière de Voir*, n°112, *Le Monde Diplomatique*, août-septembre 2010, p. 16-21.
6. See on this point the pathbreaking Barriloché model : Amilcar O. Herrera, *Un monde pour tous, le modèle mondial latino-américain*,(Paris: PUF, 1977.)
7. See on this point Anatol Rapoport, *Conflict in Man-made Environment*, (London: Penguin Books, 1974) and Éric Lambin, *La Terre sur un fil*, (Paris: Éditions Le Pommier, 2004).
8. See Éric Lambin, *op. cit.*, p.235.
9. For the methodology, see the Global Footprint Network, <http://www.footprintnetwork.org/en/index.php/GFN/>.
10. See Benjamin Dessus, « la crise de l'énergie n'a pas de solution technique », *Manière de voir – le Monde Diplomatique*, n°112, août-septembre 2010, p. 34-37
11. See on this point, Francis Hallé, *La condition tropicale – une histoire naturelle, économique et sociale des basses latitudes* (Arles : Actes Sud, 2010).
12. See on this subject, *Fighting Climate Change with Green charcoal and increasing Agricultural Productivity*, Pro-Natura Newsletter, December 2008, <http://www.pronatura.org/index.php?lang=en&page=newspage>.
13. See the special report on Egypt in *The Economist*, July 17th, 2010.
14. See on this point Ministério de Meio Ambiente, *Mudanças Climáticas e suas implicações para o Nordeste*, Brasília, fevereiro 2010, pp. 144-145.