

Green Economy: Reinforcing ideas, hoping for actions

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Introduction

THE “GREEN Economy Initiative” was launched by the United Nations Environment Program (UNEP) amidst the outbreak of the financial crisis in the second half of 2008, with a strong appeal to a new paradigm for the resumption of world economy growth: “Mobilizing and re-focusing the global economy towards investments in clean technologies and ‘natural’ infrastructure such as forests and soils is the best bet for real growth, combating climate change and triggering an employment boom in the twenty-first century” (UNEP, 2008).

The green economy will be the central theme of the United Nations Conference on Sustainable Development (“Rio+20”) to be held in Rio de Janeiro in June 2012. This already indicates some success in this UNEP initiative.

The controversy over the meaning of green economy, however, still persists owing to the ambiguous way in which it was proposed by UNEP, that is, as both a complementary (or alternative) concept to sustainable development and a set of policy instruments for achieving it (Dasgupta, 2011). As a conceptual construction it immediately raises a question: Why would UNEP have privileged a new and imprecise concept instead of the already established concept of sustainable development, whose meaning is more comprehensive? The set of recommended sectoral policies is also seen with a mix of criticism and caveats, particularly as regards the vision of green economy as a strictly economic approach of incentive to the environmental technology market, whose contribution to sustainable development is questionable (Dasgupta, 2011; Cozendey, 2011; Sawyer, 2011).

Reacting to criticism and political pressure, UNEP sought to better define green economy as “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.” In short, an economy which is low carbon, resource efficient and socially inclusive (UNEP, 2011, p.16). The need for additional adjectives or qualifiers to the concept of green economy for UNEP to advance this initiative toward “Rio+20” is quite clear in the official call for the Conference, which says:

“A green economy in the context of sustainable development and poverty eradication” (UNEP, 2011, p.14).

The aim of this article is to analyze the green economy initially from a theoretical perspective and then from the standpoint of international political economy, concluding with final remarks on its potential to convert ideas into concrete actions. In theory, it is argued that green economy is not exactly a new concept, but rather the proposal of a set of instruments for achieving sustainable development (Seroa da Motta & Dubeux, 2011); more than that, it is a reiteration of ideas already well known in the literature on environmental economics. What is new is that the green economy proposal in a way brings together approaches from neo-classical economics (Pearce et al., 1989 - explicit reference in UNEP publications; Grossman and Krueger, 1991), evolutionary economics (Kemp & Soete, 1990; Ayres, 1991) as well as from corporate strategy authors (Porter, 1991, Porter & Van der Linde, 1995a and 1995b), by strongly advocating integrated strategic environmental policies, especially incentives policies for environmental technological innovations. In turn, the green economy is still far from the perspective of ecological economics, as it addresses only indirectly - by recommending that the loss of natural capital should be given an economic value and accounted for in national accounts - the sustainable production and consumption scale, i.e., that which respects the established biophysical limits (Georgescu-Roegen, 1979; Daly, 2005; Cechin & Veiga, 2010; Romeiro, 2011).

From a perspective of international political economy analysis, this paper discusses the relationship between the green economy and the liberalization of world trade in environmental goods and services, as stated in the negotiating mandate of the Doha Round of the World Trade Organization (WTO) (Almeida & Presser, 2006; Almeida, 2006; Almeida et al., 2010). At this point, attention is also drawn to the potential conflict between the green economy proposal and the country's export and productivity specialization pattern (Almeida & Mazzero, 2011; Young, 2011).

Green economy: A directional constraint on the macro-scale for environmental innovations

According to UNEP (2011, p.16): "The key aim for a transition to a green economy is to eliminate the trade-offs between economic growth and investment and gains in environmental quality and social inclusiveness".. Essentially, this objective should be achieved through the proper selection of sectors to be prioritized by public spending and private investment according to socio-environmental criteria, focusing on strategic areas to encourage the dissemination of clean technologies.

This is not much different than counting on the composition and technological effects to offset the scale effect in the relationship between economic growth and environmental degradation described by the Environmental Kuznets Curve (EKC). The scale effect corresponds to greater pressures on the environment arising from an increased level of production and consumption.

The composition effect refers to changes in the country's productive structure that alter its potential impact on the environment (e.g., increased investment in the service sector vis-à-vis the primary and industrial sectors tends to improve environmental quality). The technique effect, which occurs by the introduction of environmental technologies, is responsible for the more efficient use of natural resources and pollution reduction per unit of output (Grossman and Krueger, 1991).

The green economy is a proposal to boost the composition and technique effects, so as to reconcile economic growth with environmental quality and social inclusion (this is a differential). The same idea of decoupling economic growth from the depletion of natural resources and environmental degradation, which is behind the EKC, is an essential part of the argument in favor of sustainable development (Stern, 2002) and is also at the base of the green economy.

Similar to the concept of sustainable development, the green economy proposal offers no answer to the concern of ecological economics about the definition of sustainable scale, i.e., the need to restrict economic growth to make it compatible with the established biophysical limits and thus avoid, or rather postpone, the ecological catastrophe foretold by the accumulation of thermodynamic imbalances over time. The inclusion of ecosystem services as one of the strategic sectors in the transition to a green economy and the proposed revision of national accounts to indicate the depletion of natural resources and the environmental degradation caused by increased air pollution reveal, to some extent, the concern about the (un)sustainable scale, but still far from what is proposed by ecological economists – degrowth according to Georgescu-Roegen, “steady-state economy” for Herman Daly (Georgescu-Roegen, 1995; Daly, 2005; Cechin & Veiga, 2010; Palmer, 2011).

A central question often asked about the EKC is whether decoupling would be an automatic consequence of economic growth *per se*, or a process induced by policies and institutions (Alstine & Neumayer, 2008). Even its original authors (Grossman and Krueger, 1991) leave some doubt about this answer. If the central idea is that the introduction of environmental technologies plays a determining role in improving the environmental quality described by the EKC, then the answer to the above question is induced by an incentive policy to appropriate technological innovations (Alstine & Neumayer, 2008).

In the green economy proposal there is no doubt about the ultimate determinant of decoupling: it is a process induced by policies, especially those to encourage innovations. This represents a break with the neoclassical liberal vision, whereby the impetus to innovations would come from market forces themselves, in particular competitive pressures through free trade and foreign direct investment.

Consequently, the green economy is a proposal that rescues ideas from evolutionary economics, as emphasized by Lustosa (2011), and relies on the

choice of environmental regulation instruments aligned to neoclassical economics approach to put them into practice, as proposed by Seroa da Motta & Dubeux (2011). This interaction of the green economy with the economic evolutionary theory as well as with corporate strategy approach is described below through explanatory quotes.

Kemp & Soete (1990, p.254), when analyzing the factors affecting the supply and demand of environmental technologies from the theoretical perspective of evolutionary economics, conclude that:

Both the development and the diffusion of pollution abatement technology is hampered by insecurity and uncertainty about demand, atomistic markets, lack of market structure power of the supplying industry and, above all, exclusion of environmental issues from the firm's traditional objectives and values of profit maximization. *The development and implementation of environmental technology needs, therefore, to be more actively supported than normal production techniques.* [emphasis added]

In the same vein, Ayres (1991) argues that breaking down barriers, overcoming the problem of lock-in¹ in technological trajectories and pushing for the diffusion of ecologically sustainable technological trajectories require establishing a directional constraint on the macro-scale. As stated by Ayres (1991, p.12-13):

Whereas biological evolution involved accidental and unconscious selection processes, economic evolution can (and must) take place on a far shorter time scale. For this to happen, unconscious and accidental (myopic) processes must be replaced by conscious, far-sighted political-economic processes. Moreover, a conclusion that is very hard to avoid is that *price signals alone cannot be relied on to trigger even economically justified investments, still less ecologically necessary innovations. This is very bad news in terms of achieving long-term sustainability. It implies that governments will have to play a more interventionist role than most economists have hitherto regarded as necessary or desirable.* [emphasis added]

Interestingly, this view that technological environmental innovation should be deliberately induced by appropriate regulations and policies, as expressed by the authors of evolutionary economics mentioned herein, was also shared by authors of corporate strategy at the same time (Porter, 1991; Porter & Van der Linde, 1995a, 1995b), as shown in the following excerpt:

The belief that companies will pick up on profitable opportunities without a regulatory push makes a false assumption about competitive reality, namely that all profitable opportunities for innovation have already been discovered, that all managers have perfect information about them and that organization incentives are aligned with innovating. In fact, in *the real world, managers have highly incomplete information and limited time and attention. Barriers to change are numerous* (Porter & Van der Linde, 1995b, p.127). [emphasis added]

These authors also advocated stricter environmental regulations to induce radical environmental technology solutions, and introduced the idea that the environmental benefits of innovation may lead to economic gains for the firms.

Therefore, there would be no trade-off between the pursuit of private profit and environmental improvements, but rather a synergistic relationship - “the Porter hypothesis”, as it came to be referred to in the literature.²

To conclude this section, it is worth stressing that UNEP launched the “Green Economy Initiative” almost twenty years after these authors brought to light the importance of strategic environmental regulations to stimulate ecologically sustainable innovations. The expectation now is that the reiteration of these “old ideas” under a new guise will finally promote long-awaited actions.

Green economy and international trade

Since the “Green Economy Initiative” recognizes the central role of technological innovation in promoting a “green and inclusive economy”, this is obviously linked to global trade in environmental technologies, thus raising concerns in developing countries about the commercial interests that lurk behind this initiative.

Experience with negotiations on the liberalization of trade in environmental goods and services under the mandate of the Doha Round reinforces these concerns, and the “Green Economy Initiative” tends to be seen as a move by developed countries to promote growth in global demand for environmental technologies under their control. The obstacles encountered by leading countries in the world market for environmental technologies to approve an agreement liberalizing trade in environmental goods and services in the Doha Round would then be overcome by a pro-green economy agreement “Rio+20” (Coz-en-dey 2011).

As the “Green Economy Initiative” started especially in developed countries³, this suspicion by developing countries is further enhanced and they tend to favor a very cautious behavior in negotiating commitments for the transition to a green economy at “Rio+20”. UNEP’s effort to qualify the initial proposal, as seen in the introduction to this paper, by adopting a full sentence to express the “new concept” - “green economy in the context of sustainable development and poverty eradication” – resulted to a great extent from the political pressure of developing countries for commitments to development and social justice to be properly addressed.

The central question here is: Are there grounds for these developing countries’ concerns? Yes and No. Reasons for answering “yes” based on the situation of the world market for environmental technologies and on the negotiating dynamic at Doha (Almeida & Presser, 2006; Almeida, 2006; Almeida et al., 2010) include:

1) The asymmetry in the global market for environmental technologies in favor of developed countries and the higher average level of tariff protection in developing countries. Developed countries are the main providers of these environmental technologies and developing countries in general are net importers

in this market. As markets in developed countries have less protection than in developing countries, the greatest pressure for trade liberalization rests on the latter.⁴

2) The dynamics of and deadlocks in the negotiations on environmental goods and services in Doha. The perception of developing countries was that developed countries, having had difficulty to approve agreements liberalizing trade in industrial goods under the responsibility of the Negotiating Group on Non-Agricultural Market Access (NAMA), tried to advance liberalization commitments regarding environmental goods under the responsibility of the Committee on Trade and Environment Special Session (CTESS). In other words, developed countries presented to CTESS long lists of industrial goods, all of them identified as environmental goods, i.e., goods whose use or final disposal should contribute to environmental improvements. In view of the scope of these lists – which ranged from some intermediate chemicals, machinery and equipment to various consumer goods such as padlocks and other bicycle accessories, home appliances and electronics – developing countries ultimately rejected the terms of the negotiations and no agreement was reached.

In turn, there is no reason for developing countries to expect negative results from negotiations on the green economy at “Rio+20”, by projecting on them the fear of the risk of commercial losses dissociated from environmental gains, based on the failure of negotiations in the Doha Round . Reasons for optimism include:

a) “Rio+20” may be an opportunity for negotiating better conditions for the transfer of environmental technologies from developed countries that actually contribute to the sustainable development of developing countries. This means moving in the desired direction, i.e., commercial gains aligned with environmental gains, something that was not possible within the WTO. Particularly, the green economy can be an instrument for putting into practice the proposal of India to the CTESS on the liberalization of trade in environmental goods and services, known as the “project approach”. Under this proposal, India made the trade liberalization for environmental technologies conditional on the pre-existence of sustainable development projects justifying the need for importing environmental goods and services, which therefore should benefit from tariff reductions and easy market access. The central idea of the proposal was to ensure environmental gain *ex-ante* and then establish trade liberalization agreements (Almeida, 2006). The same idea can be taken to “Rio+20” based on the identification of strategic sectors or areas where the urgency to introduce new environmental technologies is perceived.

b) The technological solutions for the transition to a green economy should not necessarily require the import of environmental technologies. Therefore, the inclusion of incentives to scientific and technological research in the country for the development and diffusion of environmental technologies, as

well as industrial policy incentives to the development of endogenous supply capacity are fundamental guidelines to be taken to “Rio+20”, similar to what is proposed by La Rovere (2011) to promote solar photovoltaic energy in Brazil.

Finally, still on the relationship between the green economy and international trade, it is worth remembering the limitations that Brazil’s export productivity and specialization tends to impose on the structural changes required for the transition to this “new development paradigm”.

Studies of Brazilian foreign trade point to the reinforcement of the export specialization based on the export of basic primary and semi-manufactured products and on the import of higher added value products. The Institute for Applied Economic Research (IPEA, 2009, p.3) concludes that: “The international crisis seems to have exacerbated one of the main features of the Brazilian foreign trade agenda: its high concentration in commodities and in less technology-intensive products.”

The environmental vulnerability of this trade pattern - based on natural resource-intensive sectors, pollution and energy consumption - was reported by empirical studies conducted since the 1990s (Veiga et al., 1995; Schaper, 1999; Young & Pereira, 2000; Young & Lustosa, 2002; Young, 2011; Almeida & Mazzero, 2011). The expression “environmental vulnerability” is used here with the same meaning originally proposed by Schaper (1999) to express environmental problems on the supply side - specialization in productive sectors with high potential for environmental impact – and that face increasing restrictions on the demand side in the international market, which is becoming increasingly demanding in relation to environmental aspects.

This evidence leads to another fundamental question: Is it possible to reconcile intensive export productivity and specialization in primary and industrialized products based on natural resources and with high potential for environmental damage, with strategies of transition to a “green economy in the context of sustainable development and poverty eradication?” If the structural changes privileged by the strategy of transition to a green economy in Brazil favors only productive sectors aimed at the domestic market, keeping unchanged its export and production specialization, then the Brazilian economy will probably be colored light green and its sustainability once again postponed.

Final remarks

From the perspective of theoretical analysis, the “Green Economy Initiative” is a reiteration of “old ideas”; it is not exactly a new concept, but rather the proposal of a set of instruments for achieving sustainable development. Essentially it proposes large-scale technological changes through public-private partnerships, but with a strong defense of political activism to induce the desired changes. It recognizes, therefore, that we should not wait passively for the spontaneity of markets in order to implement these necessary technological changes, but rather establish a macro-level guideline and put it into practice using appropriate instruments.

In terms of international political economy, an “old issue” is back in the spotlight: How to reconcile the interests of developed and developing countries. On the one hand, developing countries have reason to beware of commercial interests disguised as environmental causes, especially in relation to global trade in environmental technologies, on the other hand, “Rio+20” affords them the opportunity to negotiate better conditions for the transfer of environmental technologies.

The difficulty in reconciling developed countries with developing countries for a transition to a green economy is far beyond the focus of the discussion about strategic commercial interests in the global market for environmental technologies. The essence of the controversy can be expressed as a fallacy of composition: Although it is possible to decouple economic growth from the depletion of natural resources and environmental quality in a country or group of countries, this is not a possibility open to all of them in the world economy.

Notes

- 1 The concept of lock-in in the evolutionary or Neo-Schumpeterian approach refers to the structural rigidity to break certain technological trajectories. Regardless of how accidental the choice for a particular technology may be, once made it becomes a technological trajectory that can prevail for a long period of time, thus precluding the development and introduction of alternative technologies, even if these are superior in several aspects (Dosi, 1991; Zegveld & Cramer, 1991).
- 2 For a review of the debate opened by “the Porter hypothesis”, see Almeida (2002).
- 3 “The Green Economy Initiative” has a funding of some US\$4 million provided by the European Commission, Germany and Norway, and was developed partly in response to a request submitted by the G8+5 group two years ago (UNEP, 2008); the G8 is comprised by the United States, Japan, Germany, UK, France, Italy, Canada and Russia; the G5 corresponds to the group formed by South Africa, Brazil, China, India and Mexico.
- 4 An example of this control of the environmental technology market by developed countries is the renewable energy sector (biofuels and solar, wind and geothermal energy), in which 18 of the 20 largest companies are from these countries, mainly from Europe (Jha, 2009).

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ABSTRACT – The “Green Economy Initiative”, under a perspective of theoretical analysis, is a reiteration of “old ideas”; it is not exactly a new concept, but the proposal for a set of instruments for achieving sustainable development. A major novelty of this initiative is the defense of political activism to induce environmental technological change, which reveals its approach to evolutionary economics. In terms of international political economy, the potential for North-South conflict in the “Green Economy Initiative” is linked to the reported deadlock in the negotiations on trade liberalization in environmental goods and services in the WTO Doha Round.

KEYWORDS: Green economy, Sustainable development, Evolutionary economics, Environmental technologies, Environmental goods and services, Doha Round.

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