Transitioning towards ESD: A Steady Progression or a Paradigm Shift?

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Abstract：This commentary discusses education for sustainable development (ESD) in relation to the state of the planet and a number of immediate challenges that are confronting its successful implementation during the Decade of Education for Sustainable Development slated to come to an end in 2014. They are the current economic crisis and its effect on sustainability (hence ESD); the link of the crisis to the present education system(s); and the tools needed to measure the progress of ESD implementation.

Keywords : challenges, ESD, implementation, transition

1. Looking at the larger picture: Still business as usual?

It has been over forty years since the United Nations Conference on the Human Environment in Stockholm in 1972 and twenty years since the United Nations conference on Sustainable Development in Rio de Janeiro in 1992 when concern about the state of the planet was firmly put on the global agenda. It was during the 1992 Earth Summit in Rio de Janeiro that chapter 36 of agenda 21 highlighted the role of education to promote sustainable development. This role of education as education for sustainable development (ESD) was then strengthened at the World Summit on Sustainable Development in 2002 in Johannesburg during which several preparations were made to launch the UN Decade of Education for Sustainable Development (DESD) (2005-2014). At the recent United Nations Conference on Sustainable Development (Rio＋20) Conference in June 2012, the outcome document adopted at the summit restated the importance of ESD: by promoting it and integrating sustainable development more actively into education beyond the Decade (UNGA, 2012) which is less than two years from now.

On the ground however, the state of planet continues on the same trajectory: the sustainability of the environment with respect to 1) advances in technology, economic growth, agricultural productivity, access to education and clean air and water in many parts of the world are progressing unevenly, 2) enhancing quality education, eliminating war, resolving ethnic tensions and all forms of conflict are in the state of inertia and, 3) there is considerable decline in how global and regional ecosystems are protected, how other natural resources particularly the non-renewable ones are managed, and how social justice and economic equity is achieved. Additionally, with the planet currently operating beyond its carrying capacity three of the nine planetary boundaries identified have exceeded their safe limits (Ofei-Manu and Didham, 2012 and all references therein). Regrettably, the world's current education systems are incapable of reversing this trend let alone embracing the idea of a paradigm shift. Albert Einstein once pointed out that "we cannot solve problems by using the same kind of thinking we used when we created them" (Jucker, 2011: 41). A new system of education in ESD, not as add-on subject but as an educational foundation from which all disciplines and other aspects of education emerge and

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converge could be the educational approach and medium as proposed by Freire in which societies and their institutions of learning can become dynamically aligned to enable the recreation of society to support the framing of a better, more sustainable global trajectory (Ofei-Manu and Didham, 2012).

2. Challenges facing ESD implementation

Eight years into the implementation of the DESD and with less than two years remaining, how has the DESD fared? Although not going to be addressed here, how have other global initiatives from Agenda 21 aimed at addressing the plight of the planet in general done? How have the various challenges (see Ofei-Manu and Didham, 2012) facing ESD implementation been addressed? Acknowledging that to be able to reorient human behaviours towards more sustainable lifestyles and practices or whether ESD should focus on critical thinking and other components of quality education to build capacity comprise the fundamental challenges, we hereby discuss briefly three other challenges facing the ESD-based sustainability transition. They are 1) the adverse effects of the current economic crisis on sustainability (hence ESD), 2) how this crisis relates to the present education system(s), 3) and the current ambiguity surrounding the progress made with respect to ESD implementation. How we deal with these challenges and possibly others will determine whether we are going to make a slow, steady progress or a paradigm shift towards sustainability using ESD.

3. Current economic crisis and its effect on the sustainability agenda

The current quest for sustainability through embedding education, the life line of the economy in all spheres of life cannot be extricated from the reality of the financial crisis which has adversely affected not only the financial industry but the entire global economic system. Consequently, what has been ruling the airwaves of late and driving the global socio-political discourse

everywhere including the recently held 2013 World Economic Forum in Davos is "the economy, stupid". Currency wars are looming on the horizon due to the slow recovery and what central banks are resorting to is allowing inflation to spur growth after interest rates have been driven down to almost zero in most developed countries with no end in sight. With humanity still reeling from the effects of the economic downturn which began in 2008, there are now noticeable signs of a "push back" on some of the gains made so far on the sustainability agenda. And there is the tension between those who think that the economic crisis has brought the opportunity for us to begin to systemically address the issue of sustainability which means taking a fundamental look at our ecological crisis and the educational systems. Their opponents on the other hand think that the economy must be fixed first, forgetting that the economy is not all that generous to the environmental sustainability agenda even when it is booming. It appears the environment is always the first casualty when the economy is in crisis. The tragedy is that as we put these urgent sustainability issues on hold to attend to the economic mess which is largely man-made, although individuals are forced by the hard times to resort to more sustainable lifestyles, political leaders and business in particular are tempted to go back to business as usual to our unsustainable practices just to salvage the economy. Recently, there has been some backtracking on the environment on all fronts regarding governmental and particularly business programs and strategies and even scaling back on already underfunded R&D on the very technologies expected to wean us from fossil fuels, the major sources of atmospheric CO_2.

More worrisome, the enthusiasm of ESD donor countries and other entities could start to wane if it has not already started. The effect on ESD programs already under-funded will be devastating. As countries and companies conveniently renege on pledges made on CO_2 cuts because they will affect the economy, the planet however refuses to negotiate with our humanity's "timeline

and schedule". By pumping nearly 90 million tonnes of CO_2 daily into the atmosphere, putting a cap on rise in temperature at 2℃ above pre-industrial levels in order to manage to operate within the planetary boundaries is almost out of reach.

One thing scientists do not do very well is advocating for the stark scientific evidence they have gathered with the taxpayer's money with regard to the planet's decreasing resilience that grows stronger with each passing time. During one of the largest gathering of global change scientists leading up to the Rio+20 Conference dubbed Planet Under Pressure 2012, a 14-point State of the Planet Declaration was issued covering the risks, opportunities, our responsibilities and the consequences for not responding to the call to action and change the course for this planet. Whether the important outputs from this conference made any significant impact on the Rio+20 Summit outcomes is debatable. It is therefore time for prominent environmental scientists (including former skeptics like Professor Richard Muller), and proponents of sustainability/ESD to start making use of the media and directly take their case to the public about the urgency of time. A presentation by Professor Johan Rockström at TED Global in 2010 is one such good example.

4. Current economic crisis and the link to the present education system(s)

Ironically, this crisis occurred at the time the global financial/economic systems were (and still are) managed by the brightest from the best schools worldwide in the context of the present education standards. The economic crisis has therefore revealed the equal importance of one's worldview in relation to one's knowledge and skills. In the traditional education system (TES), students are taught to seek to gain comparative advantage over their peers, aim to outcompete them and get ahead of them as this brings with it big rewards in the form of big paychecks and bonuses in the future. This sort of ethos shrouded in greed is strengthened

during on-the-job training after which these graduates are asked to go and manage the global economy/finance. One fundamental question then is what has been the educational philosophy of this system(s) and as a result the worldview of its graduates sitting behind the wheel of the global economy? Because the type of learning embedded in these education systems are premised on a worldview of an economic growth that is touted as unlimited, although it cannot really survive without the planet's finite resources. The consequence is the perpetuation of such unsustainability by the products (graduates) of such education systems that need to exploit the planet's resources directly or indirectly to further maintain the status quo of their lifestyles(Ofei-Manu and Didham, 2012). TES arguably has served its purpose, albeit satisfactorily in the era of small population, abundant natural resources and a relatively small percentage of the global population that impacted the environment with large, unsustainable ecological footprints. However, because TES' standard assessment approach of mostly pen and paper tests often lacks the skills that performance-based assessment provides, the 21st century (skills) education system (21CE) – developed by the Partnership for 21st Century Skills for conceptualising different skill types important for college and workforce (Kay, 2010) emerged. TES, in addition to leaving behind millions of uneducated because they could not afford it could not also meet the demands of the economic system as it produced students that lack the some of necessary skills That not to say 21CE can or will solve the problem of inaccessibility to education just like TES. for the jobs available. 21CE whose components include skills that are considered important for reasons including educational and employment outcomes among others, however fails to address or is silent when it comes to the fundamental issue of sustainability of the future of humanity. Furthermore, it does not go far enough to develop the extra skills that are required to shape one's worldview of the planet as much as ESD does.

Partly due to its well defined content compared to ESD, the embrace of 21CE by countries with what qualify presently as good education systems mainly based on international assessment results poses difficulty for the sweeping adoption of ESD especially if the desire for the continuation of the current economic system persists and the popularity of 21CE in these countries increases. Then there will be no urgency to change or reorient the current systems of education. Even if there is political and societal will for such a change, therein lies the tension of how to disengage and dismantle these systems and structures of education, the economy and the socio-politics which have taken a long time to build. With power dynamics in the mix, creating a sizeable population of ESD literate people and entities is not necessarily a guarantee for the needed transition as a few powerful socio-political or corporate elites can use their influence to obstruct changes.

5. Measuring the progress of ESD implementation

For ESD to assume the position as the quality education for the future by reorienting and possibly "reconstituting" some aspects of the existing education systems towards sustainability and with solid evidence base that can firmly document and establish it without doubt, further research will have to be conducted including developing tools capable of assessing the progress made on its implementation so far especially as the end of the Decade in 2014 draws closer. The more these tools are able to assess and evaluate the qualitative aspects of education and learning, with regard to content, process and outcomes, the greater the chance they will be able to contribute to the paradigm shift towards ESD. Focusing therefore on the Asia-Pacific region, nearly eight years after the launch of DESD, in spite of the progress made in several fronts in the region (Wals, 2010), there has really been no systematic way to evaluate the regional implementation of ESD across multiple countries and scale it down to the local level until recently when attempts have been/are being made to develop such

tools. Consideration ought to be given to the assessment approaches employed particularly in 21CE some of which might be useful in informing the development of ESD assessment tools which is currently ongoing. Below are some of newly developed tools and frameworks across scale in the Asia-Pacific region for ESD measurement.

- Astrolabe: The Asia-Pacific ESD Astrolabe was launched in 2011 as a tool for ESD capacity building and initiatives coordination "to determine the position of ESD in the national context, the Astrolabe assists countries in taking stock of ESD linkages in national policy, mapping current ESD-related activities and identifying key actors and their scale and scope of involvement in ESD" (UNESCO BKK, 2013).

The next batch of results on ESD assessment/evaluation (except the last one) are products of a collaborative project between the United Nations University Institute of Advanced Studies (UNU-IAS) and the Institute for Global Environmental Strategies (IGES) in close cooperation with UNESCO Asia and Pacific Regional Bureau for Education.

- ESD monitoring and evaluation framework: This framework has been developed to coordinate the strategic identification of ESD reporting criteria as an initial proposal for establishing indicators for monitoring progress, for learning and improvement and to influence future policy and practice. The indicators are ready to undergo further refining after which they will be piloted in several countries.

- Good practice models: These were identified in ten good practice cases submitted by the Regional Centres of Expertise (RCEs) for analysis to identify the important criteria for ESD qualitative achievements. The findings from the case studies highlight five innovative models of ESD good practice that can be implemented elsewhere in addition to providing a window into the dynamics of ESD activities implemented by the RCEs.

- ESD learning performance framework: The overall

objective of this aspect of the research was to identify the important elemental characteristics of ESD that support effective learning performance subsequently, develop a learning performance assessment framework for ESD good practice implementation and assessment based on these components. This framework thus provides a comprehensive approach to understanding both the processes and contents involved in strategic ESD practice. For details on good practice models and ESD learning performance framework, see Ofei-Manu and Didham (2012).

- At the national level, following several governmental policy plans to promote ESD integration into formal education, the National Institute for Educational Policy Research of Japan (NIER) has developed a framework comprising six concepts, seven abilities and attitudes and three guidelines on linkages for ESD implementation in all schools (Kadoya and Goto, 2012; Okamoto et al, 2012).

It should be noted that the list here is not exhaustive and there are developments of similar tools elsewhere, some known and other unknown by the authors.

6．Conclusion

The planet is faced with several sustainability challenges which cannot be solved solely by advances in technology, legislative instruments and policy frameworks (Wals, 2012) but also through change in people's worldview that an appropriate education can help shape. The economic downturn could not have come at a worst time with respect to the sustainability/ESD agenda. However, it brings with it an opportunity for a reassessment of the linked education-economic systems and structures which are problem-laden and the underlying philosophy of perpetual demand and unlimited growth. To better address this crisis will require both a shift in the non-participatory nature of our world-view and reversing the dissociation of individuals' from nature and for which change based on education and learning (both process

and content) can provide meaningful tools to re-address these types of normative conventions with a flexibility of contextualisation for various factors and scales (Ofei-Manu and Didham, 2012 and several references therein) keeping in mind that no clear national milestones were set by UNESCO that may be used to determine whether ESD implementation has been successful or not.

Although a steady transition rather than a paradigm shift seems to be the obvious practical choice in the face of the current economic crisis, climate change/sustainability scepticism and apathy, real and actionable commitment by all members of the global community rather than tinkering at the edges of sustainability as some beneficiaries of business as usual would prefer, will not do. It is hoped that irrespective of the speed of change towards ESD, the basic vision of the DESD that rests on the principle of using quality education as an effective carrier to effect change in people's values, attitudes and lifestyles to ensure a sustainable future and the emergence of just societies (UNESCO, 2009) will not be lost. Rather, it will be channelled into developing and fostering a worldview of people that perceives and understands the urgency of present unsustainable state of the world that must change course and therefore even be willing to trade off some present conveniences to avert a harsher future reality.

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