RESEARCH

A Commentary on Education and Sustainable Development Goals

STEPHEN STERLING

Abstract

The Sustainable Development Goals (SDGs) are viewed in the context of Johan Rockström's work on planetary boundaries at the Stockholm Resilience Centre. This work sets a double challenge to educational policy and practice: to embrace and help achieve the Goals, but also to work towards a deeper change in consciousness which can reconcile people and planet.[1] The role of education is more profound and comprehensive than is recognized in the text of the SDGs as regards its potential to address their implementation. Education requires a re-invention, and re-purposing so that it can assume the responsibility these challenges require, and develop the agency that is needed for transformative progress to be made.

Keywords: Education for sustainable development, sustainable development goals, means of implementation, sustainability transition

EDUCATION AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS): A VISIT TO THE PLANET DOCTOR

First, a story.

The World goes to the Planet Doctor. 'I'm really not feeling very well', it says, and begins to describe the many problems it is suffering from. 'Hmm', says the Doctor, 'this is a very difficult case'. In fact, the problems are so profound, interwoven and tricky, a period of consultation amongst experts begins. After it ends, the Doctor presents the World with a

Stephen Sterling, Professor of Sustainability Education, Centre for Sustainable Futures, Plymouth University, The United Kingdom.
E-mail: stephen.sterling@plymouth.ac.uk

long list of prescriptions, and tells it to go away and try them. 'If you can achieve each of these 17 goals in the next 15 years, I'm sure you will be feeling a whole lot better,' the Doctor says encouragingly.

The World is not entirely convinced however, and goes to ask for a second opinion. Another Planet Doctor looks at the prescription list the first doctor gave. 'The list is very good' she says, 'but rather than asking what problems you have—which was your first Planet Doctor's diagnostic line of inquiry—I have a very different question'. 'Really?' says the World, 'what's that?'

'Well, think about this', said the Doctor in reply, 'What kind of World has these problems? Because unless we treat basic causes, the problems may only be alleviated, rather than finally cured by the prescriptions my colleague gave you.'

The list of prescriptions in this story, of course, is the SDGs. Each goal is extraordinarily important and taken together, present a potent agenda which the United Nations (UN) General Assembly states 'is of unprecedented scope and significance' (UN, 2015, p. 5) that is 'urgently needed to shift the world on to a sustainable and resilient path' (ibid., p. 1).

But supposing this agenda does not capture the whole story—as the second fictional Planet Doctor implies? It will be obvious to readers of this journal that we live in historically extraordinary times, characterized by hyperconnectivity, complexity, contingency, critical wicked problems and systemic issues—and rapid changes at local and planetary levels, which are mostly on unsustainable trajectories (Adams & Jeanrenaud, 2008; Randers, 2012; Steffen, Crutzen & McNeill, 2007; United Nations Secretary General's High-level Panel on Global Sustainability [UNSGHPGS], 2012).

Hence, and in response, the whole sustainable development discourse has emerged—growing in depth and volume in the 30 or so years since the Brundtland Report—and has been presented, debated and argued over as offering pathways to a safer world. The SDGs may be seen as the current culmination of this extended debate, an agenda-setting milestone in a global process of monitoring and action that has accelerated in recent years, including the Millennium Ecosystem Assessment, the Millennium Goals and the Future We Want accord coming out of the 2012 Rio+20 summit. The SDGs herald what all must hope will be a concerted supreme effort to change our historical course.

The sense of history, or at least of the import of this present time—reflected in the UN General Assembly's use of the language of 'transformation' and 'vision'—is underlined by work of research bodies such as the Stockholm Resilience Centre in Stockholm and the Worldwatch Institute in Washington. The former is known, *inter alia*, for Johan Rockström and colleagues' work on planetary boundaries and what they term 'a safe operating space for humanity' (Rockström et al., 2009). Rockström is worth quoting at length here:

As the human enterprise becomes more encompassing and interdependent, the prospect of achieving human well-being within the dominant development paradigm grows dim. However, an alternative sustainable development paradigm that pursues social, environmental, and economic goals separately would likewise prove inadequate. Instead, we need an integrated perspective to calibrate the operation of the human system so that

> it remains within safe parameters for a stable Earth system…The urgency of the challenges ahead demands a two-prong strategy: acting within our current obsolete development framework to bend environmental and social justice curves as much as possible, while simultaneously fostering the longer-term shift in consciousness to values and institutions that equitably integrate people and planet. (Rockström, 2015, p. 1)

Clearly, the SDGs are a crucial step forward as regards an integrated perspective, bringing together economic, social and environmental dimensions (as noted by Mahesh Pradhan herein), but only so far: a report by the International Council for Science (ICSU) and International Social Science Council (ISSC) on the SDGs suggests the goals are, however, presented with a silo approach (ICSU & ISSC, 2015); that insufficient thought has been given to how the goals and their targets can mutually reinforce, and might even conflict.

That said, the SDGs can be seen as a vital response to the first of Rockström's challenges—to effect a shift in the 'current obsolete development framework'. This is the remedy prescribed by the first Planet Doctor in the story given earlier, and is essential work in the 'outer' or material real world. But as Rockström's second challenge suggests, the prescription will not in itself be sufficient without a universal change in dominant values, beliefs and consciousness. This is 'inner' work, towards something less expansionist, exploitative, short term and individualist; something more connective, cooperative, holistic, open-minded, caring, engaged and future oriented, as reflected, for example, in the calls for a 'global ethic' by the Earth Charter. As the second Planet Doctor asks, what kind of World gives rise to and drives such a set of intractable and complex problems that now threaten even the existence of humanity in the longer term? This is a question of individual and collective belief, of value, worldview and lifestyle.

Sustainable development—famously—is seen as dependent on an integrative view of economic, social and environmental dimensions and concerns. Well and good. However, whether this interrelation is perceived as a Venn-type diagram suggesting 'weak' sustainability or as the preferable 'strong' sustainability model of nesting systems, the critical dimension missing in these representations is the personal and cultural. Sustainable development and, in fact, the SDGs are framed as external actions in the biophysical world. What Rockström's (and many other writers') plea for a 'shift of consciousness' refers to is change in our inner, psychosocial worlds.

This brings us to the role of, and challenge to, education. Let us start with its role in relation to the SDGs, which was the focus of the Ahmedabad conference. The background story here is not as positive as some educators might imagine. A desk research exercise I undertook for UNESCO in 2014 indicated that most of the high-level sustainable development reports associated with the post-2015 development agenda almost invariably underplayed the role of education as a vehicle of social change (see Sterling, 2014). Instruments that are seen as necessary to achieve the SDGs are known as 'means of implementation' (MoI) and include such measures as policy, assistance, monitoring, finance and incentives and legislation and regulation. However, mention of 'education' as an MoI was largely absent or seen as having least importance in reports and literature preceding the launch of the SDGs (Olsen et al., 2014). This is still the case—which is why the January 2016 Ahmedabad conference performed such an invaluable role.

There are two important differences between 'education' and the other MoIs. First—and as was underlined at the conference—education can enhance the effectiveness of the MoIs through developing informed engagement, agency and empowerment amongst all affected stakeholders, and through unlocking and fostering their creativity, ideas, abilities and enthusiasm. Second, whereas the conventional MoIs tend only to be effective for as long as they are applied, education can build lasting change, that is, 'sustainable change', because it is owned and affected by participating stakeholders and learners.

These key points were not reflected in the drafting of the SDGs however. Rather and as I have argued in my contribution (on Education Goal 4) to the ICSU/ISSC report on the SDGs (Sterling 2015, p. 27):

> The Goal currently emphasises education in terms of its potential economic and social benefits—there is no recognition that education through awareness raising, training and capacity building can help protect environmental quality and lead to wiser resource use: only Target 4.7 mentions sustainable development as such.

> This Goal would benefit greatly from extended wording to reflect the fact that *most educational programmes do not yet reflect the purposes and goals of sustainable development*, and some may even exacerbate sustainability issues.

This is why the Aichi-Nagoya Declaration on Education for Sustainable Development (ESD)—concluding the UN Decade of ESD—is so centrally important (as Charles Hopkins states herein) where it invites UNESCO member states to: 'Review the purposes and values that underpin education, assess the extent to which education policy and curricula are achieving the goals of ESD.'(UNESCO, 2014, p. 2).

In other words, education *can* make a critically important contribution to progress towards the SDGs, but this is by no means inevitable. Consider the following: most policy papers, conferences, research projects and discussions on education, whether national or international, are often blind to the sustainability crisis and context that will directly affect the lives of both this generation and of those to come and moreover, reflect unexamined 'business as usual' assumptions.

As the conference debate reflected, a rethinking of the 'purpose of education' is needed if it is to be a positive rather than a negative influence on the prospects of a more sustainable world. So – and as I have argued previously - education needs a significant degree of transformation itself it is to be transformative in effect, rather than conformative. Or, as Heila Sisitka (herein) advocates, it is to be humanistic, dia-logical, and deliberative, involving creativity and re-imagining….agency centred and linked to collective social learning which can 'transgress the norm'.

Of course, some commentators in environmental and sustainability education field have argued strongly that education 'for' anything— SDGs or any other worthy goal—is educationally suspect. This raises the distinction and tension between an instrumental or goal-oriented view of education and ESD on the one hand, and an intrinsic or learner-centred view of education and ESD on the other (discussed at length in Sterling, 2011). This is an unhelpful dichotomy that needs to be healed as both views bring essential insight to the vital debate on the purpose of education. The goal-oriented view of education recognizes the urgency of the global context and the need for valuative and behavioural change accordingly. The learner-centred view

emphasizes attention to the learning process and the need for critically aware, reflexive and autonomous learners as a primary concern. Seen in a complementary rather than oppositional relationship, these two perspectives together hold the promise and potential of a shift in educational thinking, policy and practice which engenders deep and transformative learning on the part of the individual and community, and also relevance and practical ability to both question and enact change towards planetary well-being, as underlined by SDG agenda and the associated targets.

We have to be 'able to reinvent education' by looking for the 'transformative action that we know has to happen', states Sunita Narain (herein). This is not wishful thinking. At the time of writing, I am reading 120 submissions from all over the world to the UNESCO–Japan ESD Prize, as a member of the international jury. They reflect a heartening level of energy, commitment, inventiveness, courage and determination to empower people to make a positive difference to their locales and spheres of influence. This is a kind of authentic—rather than commodified—education that is already achieving a difference in many projects and initiatives globally, particularly in the non-formal sphere. It manifests a burgeoning consciousness oriented towards local and planetary well-being and the public good, and is perhaps a response to the worrying appropriation of education by the managerialist, technocratic and marketization trends of the 'Global Education Industry' (Verger, Lubienski & Steiner-Khamsi, 2016), whose priorities hardly align to planetary urgencies. Rather, let us reaffirm human values in our educational thinking and practice, as advocated by Jim Taylor (herein), 'such as dignity, empathy, passion, commitment, kindness, care and vigour', to effect educational transformation towards sustainability. Alongside such a reinvigorated humanistic approach to education, the SDGs need to be localized (Osamu Abe herein), interpreted and made meaningful both within education thinking and through educational practice.

Rockström and other experts are presenting a sober analysis of our planetary home and our common prospects. The SDGs present a kind of last chance to achieve what is sometimes called 'the Great Transition' (Rosen, Electris & Raskin, 2010). As argued earlier, this must involve 'inner' work as much as—and is necessary to—'outer' work in the material world. There are only 15 short years to make a significant difference. We are faced with an unprecedented and huge learning challenge at every level, in which educational policy and practice need to play a pivotal role. How do we 'reorient our systems of knowledge creation and education'? (Aromer Revi, herein). How do we ensure that education for these extraordinary times can manifest a culture of critical commitment—engaged enough to make a real difference to social–ecological resilience and sustainability but reflexively critical enough to learn from experience and to keep options open into the future?

Unless we can get this right, we may need a visit to the Planet Psychiatrist in future, rather than the Planet Doctor.

Note

1. This commentary was sparked by and refers to several of the speakers' contributions to this special issue on the Centre for Environment Education (CEE) conference, 'Education as a Driver for Sustainable Development Goals'.

REFERENCES

Adams, W. M., & Jeanrenaud, S. J. (2008). *Transition to sustainability: Towards a humane and diverse world*. Gland: IUCN. Retrieved 30 May 2016, from https://cmsdata.iucn.org/downloads/transition_to_sustainability__en__pdf_1.pdf

International Council for Science (ICSU) & International Social Science Council (ISSC). (2015). *Review of the sustainable development goals: The science perspective*. Paris: ICSU. Retrieved 30 May 2016, from http://www.icsu.org/publications/reports-and-reviews/review-of-targets-for-the-sustainable-development-goals-the-science-perspective-2015

Olsen, S. H., Zusman, E., Miyazawa, I., Cadman, T., Yoshid, T., & Bentsson, M. (2014). *Implementing the sustainable development goals (SDGs): An assessment of the means of implementation (MOI)*, Institute for Global Environmental Strategies. Retrieved 22 March 2016, from http://www.iges.or.jp/isap/2014/PDF/IPSS_SDGs_conference_paper.pdf

Randers, J. (2012). 2052*: A global forecast for the next forty years*. Vermont: Chelsea Green Publishing.

Rockström, J. W. (2015). *Bounding the planetary future: Why we need a great transition*. Boston, MA: Tellus Institute. Retrieved 1 June 2016, from http://www.tellus.org/pub/Rockstrom-Bounding_the_Planetary_Future.pdf

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H., Nykvist, B., de Wit, C. A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., Falkenmark, M., Karlberg, L., Corell, R. W., Fabry, V. J., Hansen, J., Walker, B., Liverman, D., Richardson, K., Crutzen, P., & Foley, J. (2009). 'Planetary boundaries: Exploring the safe operating space for humanity'. *Ecology and Society*, *14*(2), 32–65. Retrieved 1 June 2016, from http://www.ecologyandsociety.org/vol14/iss2/art32/

Rosen, R., Electris, C., & Raskin, P. (2010). *Global scenarios for the century ahead: Searching for sustainability*. Boston, MA: Tellus Institute.

Steffen, W., Crutzen, P. J., & McNeill, J. R. (2007). The Anthropocene: Are humans now overwhelming the great forces of nature? *Ambio*, *36*(8), 614–621.

Sterling, S. (2011). Learning for resilience, or the resilient learner?: Towards a necessary reconciliation in a paradigm of sustainable education. In M. Krasny, C. Lundholm & R. Plummer (eds), *Resilience in social-ecological systems: The role of learning and education* (pp. 511–528). London: Routledge.

———. (2014). Separate tracks, or real synergy?—Achieving a closer relationship between education and SD post 2015. *Journal of Education for Sustainable Development*, *8*(September), 89–112.

———. (2015). Commentary on 'Goal 4: Education'. In ICSU & ISSC, *Review of the sustainable development goals: The science perspective*. Paris: ICSU.

United Nations (UN). (2015, September 25). *Transforming our world: The 2030 agenda for sustainable development*. Resolution adopted by the General Assembly. Retrieved 22 March 2016, from http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2014). *Aichi-Nagoya declaration on education for sustainable development*. Retrieved 1 June 2016, from https://sustainabledevelopment.un.org/content/documents/5859Aichi-Nagoya_Declaration_EN.pdf

United Nations Secretary General's High-level Panel on Global Sustainability (UNSGHPGS). (2012). *Resilient people, resilient planet: A future worth choosing*. New York: United Nations. Retrieved 7 June 2016, from http://uscib.org/docs/GSPReportOverview_A4%20size.pdf

Verger, A. G. (2016). *The world yearbook of education 2016: The global education industry*. London: Routledge.