

## **Stepping in, stepping up: A tale of empowering the agents of innovation**

*“Innovation is the creation of the new or the re-arranging of the old in a new way.”*

- Michael Vance, author & teacher

The statement Vance articulates above resonates in nations like Denmark and Turkey, which have spurred their collective energies in re-creating their curricula by the inclusion of a subject dubbed “Climate Education”. In light of the rapidly disturbing changes in climate, apparently caused directly or indirectly by human activities, Climate Education as an additional subject challenges the conventional wisdom that a curriculum should be monopolized with reading, writing, and arithmetic. With this, the formal treatment of climate change as a distinct subject in the curriculum is unquestionably a remarkable novelty.

But in the world’s largest archipelago, where 77 provinces or districts are vulnerable to climate change conditions (International Development Research Center), and where an estimated 80% of the teachers beg for knowledge about climate change (Hanns Seidel Foundation Indonesia), the situation sings a dissonant tune.

In Indonesia, a geographical paradise of immense proportions, Climate Education as a separate subject is not recognized in the decentralized education system. As early as the 1980s, the issue of climate change has been taught across levels of basic education via a subject called ‘Environmental Education’.

*“But there was only a superficial, half-baked discussion of climate change, as far as I remember. It was mostly about air, water, and pollution in Jakarta. So as a kid then, the*

*impression I got was that climate change was not that really important to know,”* said Alvina Gunardi, currently a school principal, recalling her high school days years ago at SMA Budi Mulia in Jakarta.

Moreover, ‘Environmental Education’ was discontinued in certain areas, as it was perceived as a subject cluttering up the national curriculum. She continued, *“Every province or region has the right to decide whether to teach or change it with other subjects. In my senior high school then, climate change was integrated in Geography but it was eventually weeded out in favor of topics that cater to the national examinations.”*

At the moment, work is in progress about the inclusion of Climate Education subject in the national curriculum. The Ministry of National Education and British Council Indonesia are, for one, collaborating for some length of time about this prospect. *“The Ministry of National Education welcomes this new initiative from British Council which seeks to establish what we currently know about climate change,”* wrote Diah Harianti, curriculum development head of the education ministry, in a British Council report entitled “Mapping Climate Education in Indonesia: Opportunities for Development.”

Climate Education is not without its critics, though. Planned innovations in the curriculum are inevitably, if not usually, bound to invite skepticism. Time and again, history has demonstrated that introducing changes in the society, no matter how informed they are, is threatening and disturbing for it shakes deeply held personal and cultural biases. And in the field of education, where there is nothing constant but changes, a reform of any kind is a derangement of the comfort zones of the very particular actors in the classrooms - the teachers.

Lauriana Panggabean, a resident of Tangerang, one of the various districts in Indonesia highly susceptible to fluctuating climate conditions as reported in 2009 by the International Development Research Center, expressed some reservations about the ongoing curricular plans. *“While teaching climate change is necessary in view of the serious environmental changes happening especially in this place, my capability to do so is limited. What tools do I have is the first question I have to grapple with,”* said the Biology teacher.

Her colleague, Sarwanti, a Geography teacher of more than five years, shares the same sentiment. *“Climate Education in the curriculum is timely. As a teacher, I feel that I have a moral obligation to give something back to my community which is experiencing climate change effects. But what I am more worried of are the practical considerations.”*

It is evident that these two teachers are trapped between the necessity to educate students about climate change and the lack of agency to perpetuate actions that address such a need. Their resistance does not point to Climate Education in the curriculum itself but on the matter of teaching it systematically and meaningfully to the students even though it goes against their own time and space configurations. The larger society expects teachers like Lauriana and Sarwanti to engage in relevant change making but the extent to which they could make transformations albeit their lack of capacity is a more burning dilemma.

Though keen to implement changes, the Ministry of National Education is burdened with enormous challenges of capacity building. Ageless problems such as tight budget and inadequacy of pedagogical resources are hindering the ministry from fulfilling their mandate.

This goes without saying then that among the ranks of the local policy makers, Climate Education appears to be fine in theory but not in reality.

### ***Stepping in***

To design a curriculum responsive to the changing times, pedagogical resources have to be in place first, among other things. The cycle of preparing, writing and publishing materials is, however, relentlessly daunting for it has to bear in mind a plethora of issues, such as language choice, specific geographical contexts, and intended readers, before the materials see light in the classrooms. In spite of the overwhelming odds, the hearts and spirits of some genuinely concerned organizations have remained steadfast.

*“The obstacles are tremendously getting bigger so we have to step in and do something. We thought that if the teachers, especially in disadvantaged public schools, have modules to use in the classrooms, the more they can impart a better understanding of climate change among the young students whose role in combating this problem is significant in the future,”* told Nila Puspita, program coordinator of the Hanns Seidel Foundation (HSF) Indonesia, a non-profit organization with headquarters in Munich, Germany.

HSF Indonesia began the arduous system of writing teaching and learning modules about climate change sometime in 1998 with the belief that education is vital in addressing climate change issues. Dialogues with various stakeholders around the archipelago constitute the large bulk of the module-writing process. *“Over the years, we have met around 2,000 teachers, headmasters, community leaders and government officials from Jogjakarta, Aceh, Sulawesi, Papua and other different places. The purpose was basically to identify specific community needs because climate conditions vary from one place to another,”* she added.

Soon after, drafts of the modules were piloted, which involved conducting theoretical sessions, discussions and peer teaching exercises. *“Revisions were made on the basis of inputs coming directly from the teachers because it is they who will implement it in the long run. So the creative production of the modules was really teacher-driven,”* she noted.

After a decade and two years of brainstorming, gathering data, piloting, testing, evaluating and revising, the HSF-initiative modules have just reached print. Straightforwardly titled “Climate Change - Education for Sustainable Development,” the modules describe the intricacies of climate change, covering topics such as global warming, deforestation, forest degradation, sustainable development, energy renewal and global and local mechanisms to mitigate the problem. Highly endorsed by the local ministries of national education and environment, it is comprised of teachers’ manual and exercises for junior high school students. Initially, copies of the modules would be distributed in localities with critical and urgent needs.

### ***Stepping up***

Innovation begets innovation. The widely anticipated modules, innovations themselves, might bring into fruition the much grander innovation: the emergence of Climate Education as an independent subject in the national curriculum. Depending on political and practical circumstances, this thought may be a long way to go but if anything, the publication of the modules is a birth sign that necessary changes especially in crucial times can certainly come into polarized terms.

*“HSF’s advocacy does not end here. The modules can only do much at the end of the day. But it signals the start of more responsibilities, more challenges to come,”* she remarked.

With the modules within arms’ reach, the teachers can gain the agency to initially effectuate changes in their students’ paradigms of thinking and behavior about the planet they live in and, in turn, torpedo a greener and safer Indonesia.

*“Now we are glad to have some gears that mobilize us on what to do,”* chorused Lauriana and Sarwanti. Holding copies of the recently released module, the two were spirited with a more upbeat tune as they went back to their beloved Tangerang, where the sustainable future of approximately 10,000 high school students is at high stakes.