

Treading a tad lighter

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"Civilization is the limitless multiplication of unnecessary necessities." – *Mark Twain*

When I think about it, it seems Twain had hit upon something. Now, more than a century after his death, it seems that nothing much has changed. This despite terms like, "global warming", "climate change", and "sustainable development" becoming part of our daily parlance.

So where to from here, especially for those of us who find ourselves in the rather responsible role of working with young people; those of us in the field of education?

Personally, I have swung from one extreme to the other: from being impassioned by the need for sustainable living to being sceptical because I questioned whether there could be any positive outcome at all.

However, when it came to interactions with students, I found myself introducing issues of sustainability in daily situations and through planned

projects. Through this, some questions arose: Can we raise awareness without guilt? Can we translate this awareness into daily practices? Do we really need a crisis in order to be careful about resource use? Even if I see no change in the students' behaviours, can I without irritation, continue to highlight the importance of care towards resources?

Ultimately, it seems it comes down to how much we as individuals are willing to change our lifestyle to make it less consumption oriented. Have we bought into the idea



Photos: CFL teachers and students

that bombards us: consumption brings happiness? Are we always trying to, as the expression goes, “keep up with the Joneses”? Further, with the availability of cheap goods (including basic resources such as water and electricity), do we feel more wealthy than we really are? If the true cost – environmental and social – of producing a product or service were factored into its price, we may not be able to afford many of the items that inhabit our homes and lifestyles today.

With these thoughts as a mental backdrop, how can we engage with students? I would like to share some ideas that we have implemented in our school that work towards living in a more sustainable, less consumptive way, at least on campus. Through this process, perhaps each of us, students and teachers, may extend such practices to our lives outside campus.

At a very mundane level, we do not require students to purchase new notebooks every year. We encourage students to use old notebooks until they are exhausted. Similarly, some textbooks are collected at the end of the year to be issued to the next group. One-sided paper is used for almost everything. Double-sided paper (text on both sides) and newspaper are used for activities. Cardboard is reused, and recycled across years of students before being finally disposed. Wood in our carpentry shed is waste material from an architect’s group and waste produced in our shed is used to fuel our wood-fired oven, while sawdust goes into our pit latrines. For craft projects, we often use existing materials or ask students to bring “trash” from home.



Speaking of garbage, a presentation by a school alumnus on her work in waste segregation inspired two students to take up segregation of the school’s waste as a community service project (senior students are asked to choose an area in which they would like to contribute to the school). They set up a system and trained the school on how to segregate. Now dust is separated from dry paper/plastic and toxic waste. Dry waste is sent to a waste recycling unit. The school was already composting kitchen food scraps and separately

handling medical waste. The compost is put back into the school’s vegetable garden.

During two of the three terms, there is enough rain to grow vegetables. On about 1.5 acres of land, students and teachers collaborate in preparing the soil, sowing seeds, mulching, weeding, watering, and harvesting. This harvest is fed to the kitchen where we prepare meals for the whole school. Apart from the garden, the kitchen tries to procure vegetables from either organic

or local sources. The students do projects where they learn about “food miles”, or the distance a particular ingredient travels to get to our plates. This provides the context for attempts to procure locally.

So far, we have been talking about various inputs. But what of the outputs? In a water-stretched area such as ours, it is criminal to pour drinking water down a toilet. Although we have squat toilets without flushes, they require water to be kept clean and odour-free. An obvious solution was to dig pit-latrines. Again, students were involved in digging some pits. We now have three stylishly designed pit latrines with earthen and stone flooring, woven bamboo walls and beautiful views of the sky and treetops – all odour-free. Saw dust is used to cover our outputs. The pit latrines are coupled with “tippy taps” to wash our hands. These are simple, high water-saving devices that can be literally thrown together

using a plastic can, four sticks and rope! Now the main issue is encouraging everyone in school to use them: back to changing daily practices! The pit latrine is possibly more hygienic than a standard toilet and certainly less malodorous!

In 2014-15, the teachers decided that our biennial *mela* should be around the theme of “sun, rain, use and reuse”. The idea was to engage with the issues surrounding consumption of water and electricity on campus and solve problems to make campus practices around these two essential resources more sustainable.

Can a school design, build, and maintain rain water harvesting and grey water treatment systems? We felt it was possible. In a series of mixed age groups students and teachers teamed up to examine water use on campus. Groups of students collected data on fresh water use and grey and black water outputs as a starting point to assess the viability of potential rain water harvesting and grey water

reuse systems. After conducting studies, students, guided by teachers and resource people decided to focus on building rooftop rain water systems for four buildings. Measurements and calculations had to be made, and then enquiries into the cost of plumbing apparatus. The pros and cons of each design, accounting for labour, water use, maintenance, and cost, were considered. Finally, materials had to be ordered and work was underway. Teachers and students worked under the tutelage of a mason. We became mason’s helpers, and with his instruction, learned how to mix cement, lay bricks, use a plumb line, spirit level, tube level and how to point. We realized how easy masons, like many other artisans, make their work look. It was certainly tougher than we imagined to build a neat, even looking brick wall! And we hadn’t even got to the plumbing yet! It was an immense learning experience for all, both frustrating and rewarding. There are now four rooftop rainwater harvesting systems in place on



campus which are used during the rainy season.

And what of the dry season? Our dry season used utensil washing system is not for the squeamish, but we save approximately 150 litres of water per meal by washing used utensils in a series of buckets instead of under running taps.

Where does all this grey water go? Our senior students with the help of teachers and resource people rebuilt our grey water system. This was no theoretical exercise. Hauling barrows of sand or head loads of gravel to classmates who were digging trenches and laying bricks, can be a humbling experience. The system successfully treats 2500 litres of kitchen grey water daily, which is then fed to fruit trees through a drip irrigation system, the pipes and trenches for which were also prepared by students.

With water taken care of, some turned their gaze to the issue of electricity on campus. A dear friend of the school brought his young team of engineers and tinkers to train our senior students in assembling 200 light emitting diodes (LEDs) for indoor and outdoor path lighting. LEDs consume significantly less energy than incandescent bulbs and compact fluorescent light (CFL) bulbs, and most of our LEDs are powered by the sun.

Over an intense 10 days students worked with this team, soldering and assembling electronic components onto printed circuit boards. Some students are confident in repairing and maintaining LEDs and we aim that they transfer this skill to their juniors before they graduate.

One may wonder how to fund such projects, which brings me to the ultimate paradox. We



are all connected to the global financial system and ultimately our funding comes from people who are plugged into this system, which is inherently exploitative – someone, somewhere is getting a raw deal so that someone else (often us) benefits. This modus operandi is not sustainable – certainly not for the welfare of those who are at the other end of the bargain. So in the bigger picture, our efforts, and our donors' efforts towards sustainability, although invaluable, are drops in a vast ocean.

Meanwhile, in parallel to these activities, our students are exposed to the human and natural environment around campus. There are interactions with people from the villages nearby whose lives are far less privileged than ours in terms of access to resources. They are taken on budget trips around India and stay with different communities to learn about others' lives, livelihoods and ways of living, as well as going on treks in different environments. We also take advantage of our magnificent semi-wild campus to draw each other's attention to the worlds within worlds that thrive

all around us. Hopefully this exposure provides a context for which we must be attentive to our consumption.

Having outlined the various conversations and activities with students, I must extend the thoughts with which I began. We can put any number of systems in place, however, if we are not attentive to the effect of our thoughts and actions on the world, then systems are merely a prop. If we feel we must keep up with others or *need* (as opposed to merely *want*) to live a certain lifestyle to be happy, then we are just scratching the surface. What is each of us willing to really do in order to live in a more sustainable yet content manner? While we ponder on this, let us not stop engaging with students and each other on these important issues and activities. Although these may be drops in the ocean, they are essential; how can we, without withdrawing from modern life, engage in a way that is as responsible as possible?

