



Green Schools Program: An Out-of-classroom Experience

Sumita Dasgupta



During the past 25 years or so we have seen environment appear in different avatars in India's education arena, sometimes as a handmaiden of 'mainstream subjects', wedged between pages of chemistry or history text books or at other times as a common theme of all extra-curricular activities as taking 'nature walks' in local parks to making scrap books on local fauna. But never, until now, was it a part of the formal grading system. Environment ceased to be a sideshow after the country's apex curriculum setter and the two dominant education boards decided to allocate scores to it in the crucial school leaving examinations. In a scenario where every single mark is viewed as a stepping stone to a future career, there could not have been a more significant move especially when it came loaded with some more interesting conditions. The assessment, as per the current guidelines, will not be based on the conventional 'study-text-books-write-examination' mode. Grades will depend on how active the examinee has been 'on the ground'.

Predictably, there has been a flurry of action ever since this diktat was passed. Treating environment as a living, breathing, and 'doing' subject is not a task that the teachers have been trained to perform. There is no ready resource available either or text books or even reference books that can fit into this mould. But as always, the teachers have resiliently risen to the occasion and come up with some remarkable ideas to turn environment into a tangible (grade-able) entity.

Green Schools Programme¹ (GSP), a flagship initiative of the Delhi-based Centre for Science and Environment (CSE), attempts to lend the teachers a helping hand because it believes that this particular class is of paramount importance. Environment as a topic is being introduced with a fresh perspective to the future custodians of the Planet. It cannot, under any circumstances, be allowed to degenerate into yet another 'boring' subject. So GSP has been designed as a tool to learn Environment 'by doing' which prods students and teachers to come out of classrooms to do things—count, weigh, measure, explore and analyse. Accompanied by the GSP Manual, a do-it-yourself hand book on how to audit water, air, energy, waste, and land, within school premises, GSP introduces a new methodology for assessing the performance of the school community as a manager of these natural resources. The end product is a report card, which CSE helps the school community to prepare, quantifying its own achievements, as well as identifying shortfalls that require awareness and attention. The audit does not require any special equipment or funds. CSE teaches the schools how to collect data using simple techniques that are anyway a part of a school's daily routine. The activities can, in fact, be used as an assignment for any of the subjects in the mainstream curriculum.

Through this process GSP attempts to drive home the message that the connotation of the word

¹At present, around 30,000 schools, representing 22 states and 1 Union Territory are a part of the GTGSP (Gobar Times Global Schools Program) network. CSE has forged formal partnership with state governments of Andhra Pradesh, Himachal Pradesh, Delhi, Punjab, Madhya Pradesh, Kerala, Sikkim and Uttarakhand. As per this alliance, the State nodal agency invites CSE to train 50-60 master trainers. These GSP-trained personnel then train teachers and students at district and block level to conduct environmental audit. In most of these States the GSP manual has been translated in the regional language, to ensure that teachers at every level can use it optimally. This process has helped in carrying the GSP message to every corner of these States. Participation from schools located in remote regions has multiplied each year. In other States, the GSP team partners and trains small/local NGOs and educational institutions who have a network of schools operating under them. Among the partners, four States — Delhi, Himachal Pradesh, Sikkim and Andhra Pradesh — have constituted Chief Minister's GSP Awards, which are given to the top performers in the State. The purpose is to acknowledge and motivate a larger number of participants, and also to ensure that the State agencies are actively involved in this initiative with a long-term plan in place. GSP has also been adopted by the governments of Sri Lanka and UAE as a part of their National Environment Curriculum.

'environment' is not limited to trees, birds and tigers. It includes all the key components that make up a human being's life and livelihood. The end product is a report card, which CSE helps the school community to prepare, quantifying its own achievements, as well as identifying shortfalls that require awareness and attention.

To wrap up, CSE organizes an annual event called the Gobar Times Green Schools Programme Awards Ceremony. Here, top performers from across the country are rewarded for their enterprise and innovative skills. The objective is to acknowledge efforts made, and also to encourage more institutions to come forward and take part in this movement. The day is celebrated as a festival, when school children from every part of India are invited, not only to witness the award giving ceremony but to take part in painting competitions, perform in street plays, watch films and mingle with each other. Every year at least 5 to 8 schools out of the top 20 belong to the rural sector.

But is GSP working?

The impact of GSP on the school community is apparent if one compares the performance of the participating schools with each passing year. Here it is important to note that more than 50 per cent of them repeat the audit process year after year. Clearly, their objective has been not just to win a contest, but to gauge if they have been able to improve their score cards and become better managers of environment.

Changing trends and perception.

In 2006, after the first set of audit reports were submitted and analysed, CSE identified the following trends:

- environment-related programmes are still considered to be extracurricular. No structured approach to bring about actual changes in lifestyle or practices are evident yet.
- schools are willing to adopt innovative methods to conserve energy and water. But follow-up process to measure and quantify the impact do not exist.

For instance, 75 per cent of the participating schools had installed rainwater harvesting systems, but only one was using its actual potential. For the others it was a showcase model - set up and then forgotten.

95 per cent of them were engaged in waste management practices, like vermicomposting, recycling paper. But only 5 could record how much per capita waste was actually being generated in their premises.

In 2007 there was a remarkable shift in attitude and approach in the following areas:

- schools had mastered the art of auditing within one year.
- their data collection, tabulation, and analysis was outstanding
- assessment of impact of resource management practices like rainwater harvesting, recycling of water and waste were far more precise, structured, and accurate.
- the students had obviously been involved in every step. There was a sharp increase in awareness level.

For instance, every school had assigned student groups to weigh waste. Audit teams included sweepers, gardeners, waste-dealers. Students were using spring balances, hand balances and weighing machines and could tell CSE what types of waste were being produced and how much, each day.

In 2008, the commitment and perseverance of the participants encouraged CSE to start a new category of awards, called the Change Makers. These were given to schools which had been able to achieve basic, but long-term changes in the mindset and lifestyle of not only the school community, but also that of parents and the neighbourhood. For instance, a school in South Delhi, recorded an 8 per cent shift in commuter practice, with students and staff opting for public transport (some provided by the school) in place of individual cars or two wheelers. The parents had been involved in this decision and they were partners in this initiative.

Since then the audit process has matured into a very effective medium to assemble authentic data on status of resources and to identify trends. It clearly indicates what needs to be done, where and how. It can now, therefore, be used by administrators to gauge whether a particular system or policy has yielded results or not.

For instance, Delhi schools have made major gains in

energy audit because of CNG-run vehicles. This policy has helped them to keep emission contribution to a minimum as compared to the other states. Their scores, however, take a plunge sometimes, because of their growing dependence on diesel-run generators, reflecting the city's power situation.

Why GSP?

It is now evident that this audit is universally required, especially in schools where resources are scarce, where it is needed to ensure that basic needs are met. In schools where there is a surfeit, the audit is required to prevent wastage.

The GSP can, therefore, be used by the school authorities as a tool for two purposes. First, to set up practical, achievable 'green norms' for Delhi's schools; then to take a step further and enforce these norms in schools in the form of green policies and infrastructure.

But are the schools actually doing it on the ground?

To answer this I shall share with you a letter we recently received from one of our veteran school partners. It says, 'As you are well aware, our school is located in one of the driest zones of South Delhi. Every summer we are forced to spend huge sums of money to buy water at commercial rates. After we were introduced to CSE's school programme, we were determined to reduce our consumption. We have finally found a way to do it. We have converted all eighteen male urinals to waterless units a step that would save 1,70,000 litres of fresh water per year. Each unit costs us Rs.2500/-. The cost of installation can be recovered in the first month itself through water savings.'

From wasteful but guilt-ridden consumers to savvy yet cautious resource managers, the GSP gurus have come a very long way! It is truly a heartening development. In the global arena, environment now occupies center-stage. It plays a crucial role in shaping economies, influencing policies and deciding the fate of heads of states. Internally, it is a priority issue in the agenda of every sector - from industry to agriculture. So it is time that we got the most important segment of the population, the students, on board in this discourse. It is now imperative to build up skills, and deepen their knowledge base in these issues. Programmes like

the GSP provide them the platform to express their views, as well as an opportunity to experiment on the ground.

Government Girls Senior Secondary School, Deorali, Sikkim: They have given a fresh angle to the entire GSP audit. They have linked it to health. The girls in this small school, perched on the hills of North Sikkim, ran a very active health club till 2005. They provided first aid to students and staff, and supervised general cleanliness, till they got introduced to GSP. These smart citizens of Sikkim quickly realized that managing solid waste produced in the school, maintaining clean, water efficient toilets, making sure that the water they drank was safe, were stuff as critical, if not more, for good health as medicines and band aids. So the health club became a hub of environment activities. And the school got healthier!

Government Senior Secondary School, Makreri, Himachal Pradesh: Yet another participant from the mountains. This time the scene is set in Himachal Pradesh, and the location is even more remote. But being tucked away in the interiors, 75 km away from the nearest district headquarters has never been a dampener for this supremely energetic school community. It had won several eco awards for its work in preserving local biodiversity - for keeping a seed bank for traditional grains and cuttings of local plant species. What GSP gave these already eco wise people was a reminder that environment is not only about trees, plants, animals and seeds, but also about water, about energy and about waste; that in a State as focused in micro-hydel projects as Himachal, it was essential to begin practicing rainwater harvesting in order to ward off the impending water shortage in farmlands as river beds dry up. And once they were reminded, there was no stopping them. The audit teams lobbied hard with the local panchayat, mobilised resources and ensured that the structures were in place, not only in the school but in the village as well.

What is GSP's future vision?

CSE's objective is to forge GSP partnership with every state government, and to help set up CM-GSP awards in each of them. It is now ready to take up the following responsibilities:

- Build capacity among teachers, students and school administrators through workshops.
- Equip and empower schools, both in the rural and urban sectors, to set up practical, achievable 'green norms'. And then help them to implement these on the ground as green policies, to be practiced in the school premises.

- To enable the evolution of an alternative curriculum. Already GSP is being used by several schools as a tool to conduct Continuous and Comprehensive Evaluation (CCE) of mid and senior level students. But GSP's primary challenge has been to provide the students an opportunity to learn about environment not by memorizing yet another text book, but by 'doing'. The new curriculum will attempt to drive home the message that the connotation of the word 'environment' is not limited to trees, birds and tigers. It includes all the key components that make up a human being's life and livelihood.

Sumita began her career as a mainstream journalist, covering any issue the assignment in hand demanded, from politics to fashion. Her area of interest got more focused after joining Centre for Science and Environment, as a sub-editor in Down To Earth, the Centre's fortnightly magazine. She later contributed as a Specialist writer on Bio-diversity, and took charge of the organisation's Natural Resource Management Unit. But the role of a writer always appealed to her more than that of a researcher. So when she was offered the post of Programme Director, Environment Education Unit, she accepted it immediately, because it allowed her to combine roles - to launch and steer GSP, CSE's maiden education initiative, and be the Editor of Gobar Times, a monthly magazine for students. At present she works as a content consultant, specialised in issues related to the development sector. She may be contacted at dasgupta.sumita@gmail.com



Some Useful Resources

Sln.	Organisation	About the Resource	Online link of resource
1.	Development Research Communication and Services Centre (DRCSC) http://www.drcsc.org/aboutus.html	Creative lesson plan series on Tree, Insect, Medicinal Plant, Water, Rice, Bird, Fish, Vegetable, Waste, Energy and Local Market – a series for the teacher and educators based on the work actually done by children in rural West Bengal	https://sites.google.com/a/apu.edu.in/work-in-schools/home/list
2.	Earthian http://www.wipro.org/earthian/index.php	A learning resource on sustainability and water	http://www.paryavaranmitra.in/Earthian-Small%20Final_High%20res.pdf
3.	Centre for Environment Education (CEE) http://www.ceeindia.org/cee/index.html	A manual compiling environment education games (Green games) that can be used in schools to acquire knowledge, values, and skills	https://sites.google.com/a/apu.edu.in/work-in-schools/home/list
4.	Uttarakhand Seva Nidhi http://www.ueec.org.in/school.htm	Environment education course text books for hilly areas (class VI-X)	https://sites.google.com/a/apu.edu.in/work-in-schools/home/list
5.	Gujarat Vidyapeeth, SADRA and Ardhendu Chatterjee	A lesson plan based on Biodiversity developed with the help of Mr. Ardhendu Chatterjee during a national workshop in Gujarat in 2013	https://sites.google.com/a/apu.edu.in/work-in-schools/home/list
6.	Srishti School and Biome Trust	A toolkit for introducing children to water and sanitation issues in and around their school aiming for behaviour change	https://www.behance.net/gallery/1430553/Agents-of-Change-Spreading-water-literacy and https://sites.google.com/a/apu.edu.in/work-in-schools/home/list

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Sl.n.	Organisation	About the Resource	Online link of resource
7.	Anand Niketan http://www.nayeetaleem.org/	Methi ki Kheti- a lesson plan for academic linkages with growing Methi in school gardens	https://sites.google.com/a/apu.edu.in/work-in-schools/home/list
8.	NCERT	Project books on Environmental Education	http://www.ncert.nic.in/recent/env_edu.html
9.	Centre for Science and Environment (CSE) 's green school programme http://www.cseindia.org/taxonomy/term/20071/menu	A DIY manual for schools on how to audit waste, water, energy, air, and land within school premises	http://pondycan.org/wp-content/uploads/2014/12/CSE-Green-School-Manual.pdf
10.	Taleem Net (Nyla Coelho)	A resource book on organic farm-based curriculum for schools	http://multiworldindia.org/wp-content/uploads/2009/12/Rural-Curriculum_India_1-of-8.pdf
11.	National Gardening Association http://assoc.garden.org/ Gardening with kids	Gardening with Kids provides tools and resources that help teachers and community leaders use gardening as a method to enhance education and foster environmentally responsible adults. Lessons, funding and a wealth of other information is provided at http://www.kidsgardening.org/ Some of the curriculum material may have only paid access.	http://www.gardeningwithkids.org/