### KIS-assisted Solid Waste Management project in schools of Kodaikanal

# Progress Report of March 2017 Prepared by Dr. R. Rajamanikam

The program is designed to cover 23 schools, 3 HEIs, and 9 civic organizations between March and August 2017.

### Phase I: Solid Waste management Outreach at schools

Outreach team: Dr. R. Rajamanikam (SEECO), Mr. William (KIS)

External Support: Dr. Clarence Maloney

Starting date: 6<sup>th</sup> March 2017

Schools approached and granted permission (table 1): 13

Schools granted permission for immediate outreach: 8

Schools that were given outreach:

Self Help Group covered: 1

Other communities engaged: Rotary Club, Kodaikanal,

Palani Hills Conservation Council

Table 1: List of schools covered in March 2017

Sl.No	Schools	Contact person	Telephone	E-mail
1	Al Qalam Int'l School, Naidupuram	Headmistress, Ms N Induja	96596-67497	MountIslamic@gmail.com
2	Bhavan's Gandhi Vidyashram, near GolfCourse	Principal, Ms G. Sridevi	04542-243922	principal@gandhividyashram.com
		Rita Cherian	91590-27202	
3	CSI- Church of South India School (Tamil)	Principal, Ms Sheela	97882-36018	
4	Kodai Noon Primary School (by lake marsh)	Principal, K S M Zakir Hussain	99439-43132	KodaiNoon@gmail.com
5	Prakk Foundation School	Principal, Ms Rita Paulraj	98422-31157	RitaPaulraj@gmail.com
		Ms. Kalpana		
6	Presentation Convent Matric School, Naidupuram	Principal, Sis Mary Therese	04542-246376	PCKMatricKKL@gmail.com
7	St. Peters School	Principal, Sam Babu		info@Peterskodai.com
		Director, Rohan D Babu	97105-68797	Rohan@peterskodai.com

8	St. Xavier School (Tamil), Presentation Convent	Sis. Selim	04542-243455	
9	Zion Matric Hr Sec School	Principal, Ms. Nancy	04542-241577	Zionkodai@gmail.com
10	RC Primary School (Tamil), Munjikal		9791657850	
11	CSI Middle School, Pakiyapuram (Tamil)	Headmaster, Mr. Ramesh	9443108608	csimspakiapuram@gmail.com
12	Santham Higher Secondary School, Naidupuram	Mr. Santha Satish	98421-44277	Saanthams@gmail.com
13	St. Joseph's High School, Perumalmalai	Headmaster Sister Jaya	9489874786	

## Solid waste outreach for schools: The process

#### 1. Approaching the school administrators and decision authorities

Thirteen schools in and around Kodaikanal were approached for their participation in the school solid waste management program. The details of the program and relevance of the concept were discussed and convinced through half an hour meeting with the concerned authorities. At some schools, more than one visit was required for ensuring their participation and for organizing the required outreach sessions. A common question raised at a few schools was regarding the impact of the project as far as waste management crisis of Kodaikanal town is concerned, since they considered solid waste generation of schools less significant and the current practice of burning as adequate. However, after the discussions they were convinced that schools can herald a positive change and influence the rest of the society through students by training them to be environmentally conscious and responsible citizen, and offered full support to the program.

Eight schools granted permission for immediate outreach and five schools postponed the outreach sessions to next academic year (June) due to imminent annual exams.

### 2. Solid Waste Management Outreach sessions

The whole student community of the schools were given outreach with the exception of first, tenth and twelfth classes. In order to cover whole campus, more than one day sessions were conducted according to the strength of the students. Each lecture session lasted 1.5 hours and another 30 minutes was devoted for interaction with the audience. The presentation language was Tamil or English according to the instruction medium at the respective schools. More than 1600 students have been reached out through the program so far (Table 2).

Table 2. Details of the campus communities covered under outreaches

		Partic	ipants	
Sl. No	Schools	No. of Students	No. of Teachers	Total No. of Participants
1	Presentation Convent Matric School, Naidupuram	352	5	357
2	St. Xavier School (Tamil), Presentation Convent	347	9	356
3	Bhavan's Gandhi Vidyashram, near GolfCourse	140	18	158
4	RC Primary School (Tamil), Town	82	9	91
5	CSI- Church of South India School (Tamil)	99	8	107
6	CSI Middle School, Pakiyapuram (Tamil)	250	9	259
7	St. Joseph's High School, Perumalmalai	270	11	281
8	Women's self help group	0	0	0
TOTAL PARTICIPANTS		1540	69	1609

#### 3. Presentation

A power point presentation was prepared focussing on introducing and raising awareness among school students on solid waste management issues in Kodaikanal using photos taken from Kodaikanal. The slideshow started with history of Kodaikanal; moving on to natural resources and their management; principals and fundamentals of waste management; present state of solid waste disposal at Kodai; impact of solid waste on health, environment and tourism; importance of waste avoidance, reduction, reuse and recycle; information on where, when, why and how a solid waste management program will be implemented; and finally, simple instructions for students how to participate in school solid waste management program. Stress was given to avoiding use of plastic carry bags, minimizing the use of plastics and source segregation of wastes.

Mr.William presented a few slides on the solid waste management system in place at KIS, at the end of each session.

# 4. Observations about the response to and impact of the outreach sessions

At the end of the presentation, a 30-minutes interaction with the students was carried out to assess their level of understanding on the topic, to assess their perceptions and attitude and also to clear any doubts regarding the presentation. The observations made during the interaction post lecture are detailed below.

- At classroom students have been taught of environmental pollution and its consequences, but they were not able to connect it to their day to day life or their own living environment.
- Most of the students are not aware of solid waste management problems in Kodaikanal region.
   In fact they feel Kodaikanal is clean and have never noticed waste dump at streets and public places.
- Almost all the schools are burning their waste at campus, they feel it is a small quantity and it is appropriate way to get rid of their waste. After introducing them the impacts of waste burning,

- students and teachers decided not to burn waste and were convinced to adopt waste recovery practices.
- After the presentation students were invited to share their views and opinion about the
  presentation and their level of willingness to participate in any alternative waste management
  system. At each session, five students were presented their views; unanimously all of them
  wanted to involve themselves in improving the existing waste management system at both
  school and hometown.
- Students have made two key decisions, 1) not to use single-use plastic carry bags and to minimize the plastic usage, 2) to educate their family and society about how to handle and properly segregate waste.
- The program strengthened the knowledge on waste management and the importance of 4Rs (Refuse, Reuse, Reduce, Recycle) among the students and teachers, making them aware of the need to take necessary actions in everyday life in order to conserve the quality of living environment.

#### **Conclusion:**

These two hours sessions may not be bringing an immediate change, but surely will have good influence in improving student attitude and behaviour towards practicing sustainable solid waste management system. Also, the schools themselves vary widely about their economic strata, quality of education, human resource and infrastructure facilities. Many schools lack basic infrastructure for waste management and a few schools lack proper sanitation facilities whom are reluctant to invest on waste management infrastructure. One or two schools lack enough backyard space for disposing their wet wastes and for segregated storage. Lack of infrastructure for source segregation, segregated storage, frequent collection and absences of processing facilities at school and town have made students left with no option for improving their performance. Students were influenced by their living environment to develop their observation skill and consciousness and were found to be influenced by their social status in the thought process and the way in which they relate themselves to society. During the waste management outreach sessions, the students were fed with scientific information and have introduced to the problems associated with inappropriate solid waste management practices in Kodaikanal so that a motivation for keeping their environment clean and pride about their town may bridge the gap among students and prepare the communities for willing participation in a waste management system.

### The way forward:

Students from all the schools can be organized under one platform, preferably online, where they can access and share each of their steps and initiatives regarding solid waste management at school level and local-community level. The contributors can be acknowledged and encouraged further. Regular (interval-based) outreach sessions are needed to instil the concept deep into the consciousness of the students. Not just the lectures, but guidance and frequent monitoring also will have greater impact on student commitments. Exchanging resources and showcasing different models will be useful for developing the specific system for Kodaikanal solid waste management. After training the students in right direction and thereby ensuring the willing participation of the students, an appropriate campus waste management system (depending on the waste stream analysis) can be kept in place which can be expected to be successful.