

## Energy consumption: family fortune or global disaster?

The Learn, Apply and Communicate (LAC) project entitled 'Energy consumption: family fortune or global disaster' was undertaken by Prasad Khedkar and Sigríður Droplaug Jónsdóttir, Environment Management and Policy (EMP), Batch 17 students.

### **Objective:**

The main objective of the project is to help families minimize their electricity and water consumption. The project also aims to inculcate the efficient and sustainable use of resources such as water and electricity at family level. There is a hidden incentive in the form of reduction in electricity and water bills, resulting into saving money if families perform better. In this project we are trying to understand the importance of behavioural changes leading to reduction in resource consumption. We do not suggest any changes in the present infrastructure and equipments in the house.

The project is carried out with the help of eight families (4 Swedish and 4 Icelandic) having different age groups, varying number of people preferably staying in different types of houses agreed upon volunteering in this project.

### **The project outline:**

The project is divided in to three phases. In first phase of the project, families were suppose to continue with their routine habits and the way they consume water and electricity for one month. This consumption can be considered as a 'normal' or average consumption of the family under normal conditions. By the end of first phase, a survey of electrical gadgets in the house and their average use was conducted in order to identify the main consumption areas. Similar survey was carried out with the water usage. The idea behind this survey was not only to comprehend the consumption pattern but also to give families a realization of how they are using resources.

During second phase of the project, families were given a chart of instructions conveying different ways to reduce the consumption. Families were also asked whether they are already following the instruction or if not how difficult it is to follow a certain instruction. All the instructions were based on a behavioral changes without changing existing infrastructure. The second phase of the project was very important as in this phase families were supposed to bring changes in their normal behaviour and reduce consumption as much as they can. The overall success of the project is also dependent on this phase.

After two months, the project was over for the families. This was the third phase, 'surprise phase', of the project where we wanted to check how families perform after passing through a 'reduction phase' or second phase in the project. At the end of third month, water and electricity utilization was checked again for all families to see whether they are continuing with the efficient consumption or not.

### **Scope and limitations:**

The project takes into account all household activities which involve water and electricity usage. It was made sure that the families do not use electricity for heating the houses. It was not possible to measure the water consumption in the families where they pay fixed monthly amount irrespective of usage or directly pump groundwater for use. Electricity bill was used to measure the electricity consumption for a month whereas water consumption was checked manually every month using water meters already installed in the houses. Any odd events, such as addition/deletion of member(s) in the house resulting in increase/decrease in consumption has been neglected.

The project's outcome is completely dependent upon each and every member of the volunteering family.

### **Communication:**

The results of the project were published at Sigridur's work place, both on the innernet and on the wall in the coffee-corner. Instructions were also published so others can feel motivated and start following efficient practices. A short report was also published on the Icelandic Society of Environmental Scientists.