E. Success from Agroecology with students

RIB has been implementing a project titled – *Agroecology from Below: Pedagogy & Participatory Action* since 2017 to promote agro-ecological principles in Bangladesh as an alternative approach to agricultural production. Different types of activities are being implemented under this project in Nilphamari, Bogura, Satkhira and Dhaka with the support from Rosa Luxemburg Stiftung. Engaging with students on issues of agroecology was one of the important activities since 2019. The goal of this activity was to sensitize the students on contemporary agrarian and ecological challenges, to generate awareness about the significance of agricultural sector in country's development, and to introduce them with principles of agro-ecology. So far, two types of activities have been conducted: (i) Promotional activities; (ii) Action Research with Students on farming.

Bangladesh is an agriculture dependent country, but most of the school going students do not have practical agricultural knowledge. Agriculture is a separate subject in the curriculum at high school level, but most of the students learn it superficially. There is a very limited scope for practical learning. Practical learning helps students to develop skills and also prepare them to work later on. If any student learns the process of ecology-friendly and safe food production, it will be easier for him/her to take initiatives to engage with sustainable agriculture. Therefore, RIB initiated the activities with students of three educational institutions:

1. Fulbari Gomiruddin Bohumukhi School & College, Sariakandi, Bogura
2. Shapla Girls High School, Sonarai, Nilphamari
3. Bongshipur Govt. Primary School (129 no), Shyamnagar, Satkhira

At first, the project staffs proposed the school authorities to allow RIB to engage with the students on issues of agro-ecology. The authorities agreed and designated some teachers to supervise these activities in school campus. Besides the school authorities issued notices to inform the students about the date and rules of the competitions. Interested students participated in essay, art and quiz competition under the promotional activities. The themes of each segment were environment and agro-ecology. Through these activities, the students creatively expressed their understanding and expectations on environment, agriculture and the present ecological challenges. Finally, a discussion session was organized to sensitize them on environmental and agricultural issues and the names of the winners were announced. Some eminent personalities and project farmers of respective areas participated in the discussion sessions.





Photo: Art competition in Satkhira (top) and Nilphamari (bottom)

Action research with students on farming was another important intervention of RIB. The school authorities designated a teacher to supervise the agro-ecological activities in school campus. Besides some project farmers were engaged to closely monitor the activities. A students' group was formed in each school. They discussed the present agricultural pattern and identified the challenges related to ecology and public health due to over-dependence on synthetic chemical inputs. Later they were introduced with the components of agro-ecosystems, agro-ecological principles, basic agricultural techniques and local agricultural tools as they decided to examine the viability of agro-ecology on their own. They selected a site in their school campus and made a list of crops to conduct multiple cropping from robi season. Associated project farmers helped them to set fences with bamboo sticks to secure the plot from domestic animals, to till the land and to collect the seeds of selected crops. The students did not have any practical experience on farming. The project farmers helped, trained and supervised them in the entire process and worked with them collectively. This is quite extraordinary in Bangladesh as farming is not considered as a respectable or profitable job and the farmers hardly have any access to the formal educational institutions. For the first time the farmers got the same respect as teachers as they practical-hands on training to the students in the school garden. Moreover, farming in school campus by the students was unprecedented in Bangladesh.

The students shared the harvested crops with the teachers of their school. The teachers appreciated their efforts and werer very satisfied with the quality and taste of the harvested vegetables. They were assured of the quality of these products and took for family consumption. A teacher, Narayan Chandra, from Shapla Girls High School, Nilphamari, said,

> "I do not eat any conventionally cultivated leafy vegetables due to stomach trouble. But I ate the leafy vegetables cultivated in school campus as they didn't use any chemical inputs. It was very good and I didn't face any health problem. Inspired with the students and farmers, now I am also cultivating vegetables in my homestead land based on agro-ecology. I also learnt that the problems of insect and pests can be also be dealt by cultivating multiple crops."

Md. Razzak, another teacher of same school said,

> "We learned different agro-ecological methods from the agricultural plot at school campus. Now I am practicing these methods myself. Looking at the enthusiasm and excitement of the students involved in the school garden project, many more students have showed their interest to join the school farming activity."

The teachers in these schools also got engaged with the project farmers who were contributing their skills and knowledge in the school garden activities. Gradually, their perception towards the farmers started changing. They appreciated the farmers' knowledge on agro-ecology. Few more teachers also started cultivating based on agro-ecology to produce safe food for their family. They considered the agricultural plot in their school as an excellent model to generate and spread agro-ecology among the students, guardians and neighbouring farmers.








Photo: Farming by students in Bogura

This kind of demonstration is very important to spread agro-ecology. The agriculture is gradually being controlled by a few multinational companies. Most of the profits are being taken away by them. The negative consequences of industrial farming are increasing day-by-day. Spreading and showcasing sustainable, traditional and peoples' knowledge is crucial to counter their dominance as well as to sensitize people. Sensitized people can work together with farmers to promote and use our own local seeds and ecology-friendly inputs and techniques. Thus, we can produce safe food without polluting our environment and without being dependent on multinational companies.

The students were also very excited with their farming experiences. Anila Akter, students of class VII of Fulbari Gomiruddin Bohumukhi School & College, Bogura, said,

> "In the beginning we were little confused. Gradually, we started learning about our environment and ecology. We started farming in school campus. The farmers helped us to set fences. There were many small pieces of bricks in the plot. The soil was dry and not suitable for cultivation. We cleared the plot and the farmers helped us to plough the land. They applied organic, liquid and microbial fertilizers to make the soil cultivable. We learned the preparation and application of these organic fertilizers. Later they provided local seeds of different vegetables according to our preferences and taught us how to sow them. We prepared bed and sowed the seeds. We regularly watered the field and took care of the plants under their guidance. We kept some non-crop plants to keep safe our crops from pest. Finally, we harvested the crops and shared with our teachers. I took my portion and gave it to my mother to cook. The vegetables were much tastier than those available in the markets. We learned many things during this process."

While these students were working in the school garden their class-mates started making their fun. Some said not to waste time in these unnecessary things but rather focus on the studies as you are good students. But they enjoyed their collective work very much. They learned so many new things and determined to continue farming at school and home. Many of them already started farming in their home and told their parents and neighbours not to use chemical inputs. They also realized the hard labor behind producing food and the importance of farming. They practically realized the importance of conserving biodiversity. The most interesting thing is their self-realization on a fundamental issue. The students of Bogura group raised a question: "A large portion of our country's population is farmer. They provide our food. They are hard laborer and scientist. They know how to produce crops using natural materials. They created and conserved so many types of seeds from time unknown. They know everything about agriculture. But why are they poor? Why are not they treated with dignity?" We will have to answer this question for our own survival.

Photo: Students are harvesting leafy vegetables in Nilphamari





Agro ecological garden in Shapla Girls High School, Nilphamari





Farming by students in Satkhira