

User Experience with Mud-ICS from Udayapurgadhi Rural Municipality

The Situation:

Udayapurgadhi Rural Municipality of Eastern Nepal lies in Udayapur District one of the 14 districts of Province No. 1 in eastern Nepal. According to the census of 2011 it has total of 317,532 populations of which Chhetri, Rai, Magar are principal ethnic groups of Udayapur. In 2011, its literacy rate was 69 percent and female percentage was 53 percent. According to 2011 census of Nepal, the total population of this municipality was 30,731. Remote geography, diverse settlement, lack of access to education, health services, roads, drinking water, communication, poverty and unemployment are major problems of this rural municipality. Even to date, there is no grid electricity; hence the community depends on solar electricity. This Rural Municipality has prioritized access to clean energy and grid electricity in 2018/19. The objectives of the plan are to:

- Provide access to electricity
- Lighten the streets and roads in the municipality using solar
- Develop the municipality through the use of environment friendly technologies and
- Work towards environment and forest conservation.

Background Detail of User:



Ms. Rachana Guragai, age 34, is a resident of ward no 6 of Gadi Gaupalika. Ms. Guragai is an educated house wife. She has completed her bachelor's degree before her marriage. She lives in a joint family of nine members including her in-laws: father, mother and brother. It is her responsibility to prepare meals for the whole family. This she has been doing daily using the mud ICS. She has been using this improved cook-stove for the last

two years.

“I am relieved from the smoke problem after using Improved Cook Stove” - Ms Rachana Guragai, ICS user

According to her she learned about ICS while she was travelling in Jhapa another district in eastern Nepal. She was also able to acquire a booklet from an ICS promoter in the district. Since then she was wondering on installing ICS on her kitchen.

Fortunately, her neighbor Ms Kamala Kumari Thapa received training on ICS building from WEE Nepal project. CRT/N has been implementing “Promoting Women-led Enterprises for Energy Access and Local Production: WEE-Nepal” project in coordination with National Association of Community Electricity Users-Nepal (NACEUN) and Practical Action Consulting (PAC). ENERGIA, the International Network on Gender and Sustainable Energy hosted by Hivos, the Netherlands has supported the WEE-Nepal project under its larger project “Scaling up Energy Access through Women’s Economic Empowerment (WEE)” funded by SIDA, NORAD and Ministry of Finance Finland. This project has worked towards enabling woman economic empowerment by creating enabling environment for woman entrepreneurs in micro enterprises. This project has also build around enhancing access to sustainable energy technologies and services and other sustainable energy-based micro enterprises for local production in rural areas. Ms. Kamala Thapa, after the training from WEE Nepal has constructed around 200 Mud- ICS in that ward.

Her Experience on ICS

Ms Rachana Guragai is very happy with the ICS. The reasons for her happiness are plenty:

- there is less smoke in her kitchen keeping it neat and clean.
- the stove uses only one third the amount of fuel wood compared to traditional stove thus saving the fuels and forest.
- she is able to carry out other activities even while preparing the meals.
- there is also the possibility of using coal produced from burning fuel-wood for heating space during winter.

Her father-in-law, Mr Tank Raja Guragai and mother-in-law Ms. Chetra Kumari Guraigai also appreciate the ICS very much. Mr Tank Raja Guragai said that ICS is very much suitable for their family. This has multiple positive sides, as the smoke goes out of the kitchen, thus the household pollution does not affect the health.

Her mother –in- law had problem with smoke but as there is no smoke in the kitchen, she is now joining her daughter-in-law to cook food for the family.

“There are multiple benefits of ICS, if we use it and maintain it properly” - Mr Tank Raja Guragai



Conclusion:

Majority of the population in developing countries, use traditional stoves for cooking and heating. Traditional cooking system consumes more wood, the indoor air pollution from burning solid biomass affects health of family, releases carbon dioxide, methane and other gases; most affecting contributors to global climate change. ICS is one of the clean cooking solutions, this reduces fuel consumption by 30-60 percent, resulting in reduction in greenhouse gas emissions and giving positive impacts on health, habitats and forests.

This case study of Ms Rachana Guragai mentioned above presents some evidences of positive impact on use of ICS. In Udayapurgadhi Rural Municipality, mostly people rely on forest for wood. If ICSs are promoted in this municipality; it can help to preserve the forest as well as help to establish environmentally friendly area.

It should also be cautioned that poorly constructed ICS can create obstacles in adoption. The effectiveness of mud-ICS depends upon the expertise of ICS installer. Installer must be skilled and trained and should follow the standard guideline. Thus it is recommended to construct ICS under the supervision of expert and have monitoring after installment as well.