CASE STORIES of Women Entrepreneurs Based on Energy
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Foreword

The Centre for Rural Technology Nepal (CRT/N) established in 1989 is a professional non-governmental organization engaged in developing and promoting appropriate rural technologies effective in meeting the basic needs and improving livelihood of rural people. Since 2004 CRT/N has dedicated itself in integrating the issues of gender in its energy projects and programs. Over the years, the scale of the gender agenda has increased, enhancing the effectiveness of the projects. From capacity development to policy influencing, the organization has adopted various tools and mechanisms to ensure the core essence of gender in energy projects and programs.

Since 2016, CRT/N strategically formed a Consortium of Partners, that includes National Association of Community Electricity Users-Nepal (NACEUN), Nepal Forum of Environmental Journalists (NEFEJ), Renewable Energy Confederation of Nepal (RECoN), Indoor Air Pollution and Health Forum Nepal (IAPHF) and Practical Action Nepal having common objective to ensure energy transitions towards a green, more inclusive and more accountable energy system. This Green and Inclusive Energy (GIE) programme focuses on specific lobby and advocacy goals (influencing policies and practices) as well as on strengthening of advocacy capacities of civil society actors for promoting green and inclusive energy systems. This programme has received policy support from Alternative Energy Promotion Centre (AEPC). The programme is contributing Sustainable Energy for All (SEforALL), a global initiative led by the former Secretary-General of the United Nations, Mr. Ban Ki-moon and national campaign Clean Cooking Solution for All (CCS4ALL). It is also an ardent member of the SEforALL National Coordination Mechanism.

This booklet “Case Stories of Women Entrepreneurs Based on Energy” presents the views and experiences of participating woman entrepreneurs explaining their struggle, challenges, success factors and entrepreneurship advices to others. All the stories compiled here are the stories of women entrepreneurs participating Promoting Women-Led Enterprises for Energy Access and Local Production (WEE Nepal Project) led by CRT/N in coordination with NACEUN and Practical Action Consulting (PAC) supported by International Network on Gender and Sustainable Energy (ENERGIA)/ Hivos, the Netherlands.

It gives me great pleasure to share this booklet prepared by the GIE Programme Team of CRT/N. I strongly believe that the case stories presented here will be helpful to the readers in understanding the status and needs for enabling services for women entrepreneurs in particular. Furthermore, it will be helpful to the organizations working for increasing access to energy for sustainable development.

On behalf of the CRT/N, I would like to extend my heart-felt thanks to ENERGIA/Hivos, AEPC, Consortium Partners: NACEUN, NEFEJ, IAPHF, RECoN, Practical Action, the GIE Team, WEE Nepal Team, support organizations, CSOs, case presenters and all the rural community who have contributed the development of this booklet. Without their support the publication of this booklet would not have been possible to bring to the present form.

Ganesh Ram Shrestha
Executive Director
Centre for Rural Technology, Nepal (CRT/N)
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Creating Own Recognition through Small Entrepreneur Plan

On March 8, 2019 on the special occasion of the International Women’s Day, Ramila, resident of Durchhim was honored with a title “Best Entrepreneur” by Halesi Municipality, Khotang, Nepal for her outstanding work as a vegetable farmer. As part of this honor, she further received an honor certificate from the Municipality.

Due to lack of education, information, awareness and income source, women in Nepal, especially the rural women have limited mobility and control over house-hold resources. Hence, women are confined within the house chore activities.

Journey of Ramila towards Entrepreneurship

Earlier, Ramila’s husband was a local contractor with the earning not sufficient to feed the family and educate the children. The family was under financial pressure all the time. Coincidently, Scaling up Energy Access through

I highly feel encouraged when Municipality honored me. I am feeling more confident on what I’m doing and I will work harder in the coming days.
Women’s Economic Empowerment (WEE Nepal Project) implemented by Centre for Rural Technology, Nepal (CRT/N) and supported by ENERGIA/Hivos, the Netherlands was providing the entrepreneurship training to women, where she received the opportunity to connect with the project.

It has been 2 years she is growing vegetables and fruits. Initially, she came across major challenges such as insects killing the vegetables and fruits, low self-confidence when the price of vegetables lowered down. Later, through skill training and continuous mentoring, she was able to overcome those issues effectively. Now, she understood the business strategies and marketing where sometimes the price goes up and some time it declines, balancing the actual profit. At the moment, she has increased self-confidence with determination, dedication and desire to expand her business further with adding four extra plastic tunnels for more vegetable cultivation.

Ramila further stated that we really do not have to move abroad in search of job leaving families behind, we can simply stay in our own village and earn more with little extra effort using water, forest, land and other available local resources.

“I wake up early at 4 a.m. in order to make vegetables ready to sell. I carry them from Durchhim to Chapdada near market around 7:30 a.m. Sometimes, I use taxi and other times, I carry on my back since taxi is very expensive. I buy the stuffs for home and books/copies for the children with the money I got from selling vegetables.”

“I can't explain how much support I get from Likh Ram Chaudhary (Business Development Coordinator from WEE Nepal Project). He came into our life as a guiding star, I pray to God to provide him, success and happiness where ever he goes. Also, this would not have been possible without support from my husband. He equally gives time to me in the farm. Many women took the training but they could not do well because of lack of family support.”
Then and Now

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 AD</td>
<td>Regular Housewife</td>
</tr>
<tr>
<td>2008 AD</td>
<td>Started small scale rental Tea &amp; Shop Business with NPR (2000-5000)</td>
</tr>
<tr>
<td>2015 AD</td>
<td>CRT/N Training received</td>
</tr>
<tr>
<td>2017 AD</td>
<td>Registration of Business</td>
</tr>
<tr>
<td>2018 AD</td>
<td>Award from WEE Project</td>
</tr>
<tr>
<td>2019 AD</td>
<td>Owned medium Scale Business worth NPR 90,000</td>
</tr>
<tr>
<td>2020 AD</td>
<td>Expand business</td>
</tr>
</tbody>
</table>

Journey of Purnima Ghalan

Purnima Ghalan, 40, is a small hotel owner residing at Konjyosom Rural Municipality-3, Dalchowki, Lalitpur with her family of four. Initially, through the capital investment of NPR 10,000 she started a small stationary and tea shop in a rent with NPR 2,000-5,000 monthly profits. There was a time when local people threatened her to shut down the business and leave the area, since she originally came from different village: Sankhu. However, now the interesting point is that Purnima’s hotel is the only one well established hotel and admired by the same people. Before there were 5-6 hotels but now they all are...
Personally, I encourage members of Mother Groups to start their own business according to their skills such as poultry, sewing, farming. From my own experiences and challenges, I recommend them to do’s and do not’s.

Way Forward

In future, she further plans to expand her hotel business with one more floor for 15 plus guests with additional underground hall for the training, 4-5 employees.

Electrical Appliances

» Refrigerator
» Mixture
» Water Pump Motor
» Water Boiler

Case Stories of Women Entrepreneurs Based on Energy
The story of Shanti Thokar, who is class three passed, age 33, resident of Dalchoki, Lalitpur is amazing. She is honest and sincere whatever she is doing. She is a true example for rural women entrepreneur who want to earn with their own. Success does not require to have high education, huge investment and larger business. Shanti always had the desire to do something with her own. This motivated her to look around and find the opportunity.

She stated,"Success is the journey of small steps with continuous efforts." When she got married at the age of 18, she got involved herself in the grocery of her husband. Slowly she learned to communicate with customers and started building a relationship with regular customers and suppliers. Now, she solely looks at the grocery shop. She started buffalo farming as well. Later she also started goat farming, beekeeping and local chicken farm.

### Shanti as A Small Entrepreneur

<table>
<thead>
<tr>
<th>Monthly Income of Shanti in NPR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery</td>
<td>5,000</td>
</tr>
<tr>
<td>Buffalos</td>
<td>25,000</td>
</tr>
<tr>
<td>Honey</td>
<td>15,000</td>
</tr>
<tr>
<td>Goats</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td><strong>50,000</strong></td>
</tr>
</tbody>
</table>
at rural circumstances. She started with a goat as the forest was nearby, there was enough grass available. When she realized money can be well earned from this, she decided to do it professionally. Following that she added 26 more goats. With the time, her confidence and finance boost up and slowly she started looking after the grocery herself, while, her husband is now a full time carpenter. Later Shanti also started buffalo farming and bee-keeping, diversifying her activities for increased income.

Challenges

She initially faced some financial constraints, however, she got a loan from a local cooperative, now she has returned all the loan amount. Having limited knowledge on goat farming, she initially faced problems, Later she got training from Scaling up Energy Access through Women’s Economic Empowerment (WEE Nepal Project) implemented by Centre for Rural Technology, Nepal (CRT/N) supported by The International Network on Gender and Sustainable Energy (ENERGIA), the Netherlands and overcame the problems. Shanti said that the orientation and business development training was quite helpful for her. She learned to maintain accounts, calculate profit and dealing with diseases on animals. Another major challenge she is still facing is water scarcity, every day one hour is needed to fetch the water.

Future Plannings

Shanti mentioned, "As an entrepreneur I want to grow the farm and as a mother, I have a dream to provide good education to both of my children." She also stated that, as a woman her responsibility is more towards children. She wants her children to be honest and sincere along with good education.

Electrical Appliances:

- Chaff Cutter
- Water Mill
- Heater
- Water Boiler

I want to tell every woman that small step can change their world. Its slow process however its satisfying.
Economic Empowerment through Entrepreneurship

The Situation

Nepal has made great strides towards gender equality in recent years however it still lacks the opportunities for economic empowerment of women. As Nepal remains a patriarchal society, women’s access to economic resources are severely limited. Most of women are involved in unpaid unproductive family labor force. Women in Nepal are responsible for cooking, fetching fuel and water for household purposes. Further, continued dependence on traditional biomass has adverse effects on women’s health. Sixty three percent of the populations live in rural areas (CBS, 2011) and are dependent on kerosene and bio-fuel. The economic empowerment of women is a vital element of strong economic growth in any country given the fact that they constitute 50 percent of the economically potential population. Involvement of women in entrepreneurial activities would ensure effective utilization of labor, generation of income, leading to improvement in quality of life and economy of the country. Women empowerment through entrepreneurship is a must for a modern developed economy.

“Energy: Empowering Women, Uplifting Lives” or “Advocacy” project has supported and advocated women entrepreneurs of WEE Nepal project (Promoting Women-led Enterprises for
Both projects were implemented in Nepal under the leadership of Centre for Rural Technology, Nepal (CRT/N) in partnership with National Association of Community Electricity Users Nepal (NACEUN), Nepal Forum of Environmental Journalists (NEFEJ). The project was supported by ENERGIA/Hivos with Alternative Energy Promotion Centre (AEPC) providing policy support.

**Parwati Shrestha, ICS Entrepreneur Expands Her Enterprise**

Parwati Shrestha, resident of Katari, Udayapur District in Province -1 is a successful female entrepreneur. She commenced her journey with the ICS business. A year later she included a retail shop in a rented house. Her shop is located within the inter-district bus station, an appropriate market area for her business. Realising that the area has good business opportunity for an eatery she supplemented her already operating business with an eatery. At present she is furnishing the shop together with different appliances to enable quick cliental service. She has a monthly earning of NPR 30,000- NPR 40,000. The business has increased her income but also built her confidence in overcoming the risks.

"**Women can be independent, they can earn money but they need to believe in their abilities, and utilize their strength, skill and time for the what they want to do.**"

Parwati Shrestha is 34 years old, she is married and has a little daughter. She herself did not go to school in her childhood but aspires to send her daughter to have good schooling. As her husband is employed abroad, she is managing the tasks on her own. Her friends and family help her out when necessary at the shop.

About four years back she participated in the training on entrepreneurship building organized by WEE Nepal project. According to her, the training helped to develop concept about business. At the time of training, her daughter was only two years old, so she was on dilemma whether to take part in training or not. Her mother motivated her to take part and start business. According to Parwati, her mother is the guiding and inspiring source for her to establish her business.

She started her business of ICS
in partnership with Mina Koirala. They had an investment of NPR 117,000. They advertised and created demand of ICS in the programmes of municipality. Parwati had also recruited three agents for the marketing of ICS. Now she is more engaged in the shop and the eatery. She is earning well from the shop and hotel. She said that she is equally happy with the business of ICS, shop and hotel.

She initiated her business with a loan from Chimek Laghu Biita Bikas Bank Limited for purchasing a refrigerator and racks for the shop. She is fully confident of timely payment of the loan. In the process of expanding her business, she is also negotiating with Udayasri Finance for the loan of amount NPR 1,00,000. With this fund at hand she intends to show case ICS stoves on display on a rack within the little shop.

In average she has a daily saving of NPR 400 after deducting for rent, daughter’s school and other household expenses.

“Present women have rights and supports, hence it’s the time to do the things own selves. We have to utilize the time and should involve ourselves in productive activities.”

Parwati Shrestha would like to advice other women that they should not depend on their husband but be financially independent. According to her, most women in the community stay at home, wasting their valuable time, enjoying the husband’s income and believes that husband’s income is sufficient for them. She states that today women are no less than men. They have all the rights and necessary support, hence it’s the time to do things differently - utilize available time effectively, engage in productive activities.
The status of women in Nepal has varied throughout history. Nepal has predominantly been a patriarchal society where women are generally subordinate to men in virtually every aspect of life. Men were considered to be the bread owner of the family. However, the story of Niru Shrestha is different. Thinning the barrier to gender inequality and following her dream to be a successful business woman, she has achieved the level which her family and society had never imagined. She started business with solar light lamp in 2005 and continued expanding it with mud ICS and later metallic ICS. She received the international honor from ENERGIA/Hivos the Netherlands “The ENERGIA Women Entrepreneurships Award 2017” on 5th April, 2017 at the SEforAll Forum, Duggal Greenhouse in Brooklyn, New York for her achievement in selling improved cookstoves. Beside the success in business, she is a successful mother and a social worker. She has not only earned money but also recognition and respect in the society.

Niru's Journey from Small Entrepreneur to International Award Winner

Women can lead a business and can earn money. Only what they require is to have a passion and strong determination. If you are determined, gender inequality will not hinder your business even though you are a woman.
Niru Shrestha, age 48, is a resident of Sindhuli district, Dhungrebas, Kamalamai Municipality, ward no 4. After marriage in Sindhuli district, she worked in Community Forest Group and Alternative Energy Development Programme. Later, she resigned from the job and started business in 2005 AD. Initially she sold light lamp and received training on mud ICS which she said was a turning point for her business. She worked in consensus with Environment, Energy and Climate Change Section, District Development Committee in Sindhuli to sell ICS as wholesaler. She also received training on metallic ICS organized by Promoting Women-Led Enterprises for Energy Access and Local Production (WEE Nepal) project implemented by Centre for Rural Technology, Nepal (CRT/N) supported by ENERGIA/Hivos in collaboration with partner organizations National National Association of Electricity Users Nepal (NACEUN) and Practical Action Consulting (PAC). She also received guidance and mentorship from the WEE Nepal project regularly.

**Business modality followed by Shrestha in her ICS business:**

- Formed group of ICS entrepreneurs trained by WEE Nepal project
- Mobilized those group members as an agent and to be her retailers
- Coordination built up with organizations, NGOs, INGOs, MFIs, LFI of Sindhuli district
- Interaction at VDC level with women entrepreneurs and local institutions helped to launch activities
- Agreement made with national level dealers (Ajummery Bikas Foundation, Jabari Foundation, Smart Chaitya Metal, Matri Bhumi Private Limited) from Kathmandu
- Coordination with representatives of village council
- Interaction with district forest office
- Lobby to involve women entrepreneurs of Sindhuli district as a retailer in business

**“Diversify your business, never stick on one business. I see money in everything. I run grocery shop at home. I sell vegetables grown at the backyard. I run cow farm, fishery, poultry farm, dock farm and meat centre.”**

Niru uses electricity, solar, bio-gas, LPG and ICS in her daily activity. She uses solar and electricity to pump water to irrigate vegetables, feed cows and for the fish pond. She uses LPG and refrigerator in her chicken cutting centre. Similarly she uses electric bulb for lighting, heating the poultry farm.
and operating other appliances. Niru says energy is very essential in business, it provides the opportunity to advance the business.

Niru Shrestha is a great example of a true entrepreneur. She has an entrepreneurial spirit and hardworking capacity. She finds opportunity in everything. While interviewing her, she said that she can work and earn money anywhere. According to her, there is money in everything if we look it from the business angle. Business opportunities can also be seen in remote areas. Nepal is rich in natural resources. We can sell wood to nearby cities, make compost manure from leaves of tree, can have goat farming, can make tapari (Plate made of leaves and even can sell the grass.)

From the very beginning she worked hard for her children, so that they get a good education and have a better future. Initially she faced financial problems while starting the business but her friends provided the necessary support. The work experience in the field of community forest and in local NGO helped her to establish network and provide other information for her business. She worked more than 12 hours a day and is earning around NPR 1.5 lakh per month. Her confidence is her strategy for the success; she says there is nothing that holds back a woman or mean unless s/he is confident. Other important thing is to have access to finance, which most of the woman often lack. There should be provisions of easy access to loan to women who are enthusiastic to start business.

She said the journey of her business was interesting and rewarding one. The most memorable moment according to her was when she received the international award in United States. She told that the moment reminded her entire journey, the obstacles and challenges she faced; however felt immense pleasure to have the honor. Now, in her society people give example of her as an influential figure. Now business has become her identity in Sindhuli district. Currently, she is the president of Nepal Entrepreneurs Association, Sindhuli and has also been involved in various social services.

“Without access to energy there is no business. Only the better access to energy leads to enhanced entrepreneurship developments, which simultaneously generate growth and improve productivity.”
“I started a dairy farm with 40 litres milk per day, currently, I own eight dairies and I sell 2000 litres milk per day. One cannot be successful without challenges but to become a successful entrepreneur for the long run, we need to have strong determination and commitment to pursue it. For me, honesty and trust are more important than business principles. Of course we need investment, however, in my long experience, investment was never a barrier.”

Mina, age 48, resident of Dalchoki, Lalitpur district initially used to make Khuwa in a traditional way which requires both time and effort (Khuwa is a solidified form of milk product, which is one of the most popular and most desired dairy product in Nepal). At that time her three children were small. Additionally, it required more woods which constantly made her husband go to the forest. This ultimately made her quit making Khuwa and started small dairy in 1997.
Mina’s Achievements

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Owned</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Daily sale</td>
<td>40 Litres</td>
<td>2000 Litres</td>
</tr>
<tr>
<td>Monthly Transaction</td>
<td>Loss</td>
<td>NPR 3900,000</td>
</tr>
<tr>
<td>Monthly Profit</td>
<td>Loss</td>
<td>NPR 2100,000</td>
</tr>
<tr>
<td>Employment</td>
<td>6</td>
<td>29 (23 Men and 6 Women)</td>
</tr>
<tr>
<td>Machinery</td>
<td></td>
<td>• Refrigerator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cream Separator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Milking Machine and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Milk Chilling Machine</td>
</tr>
<tr>
<td>Buffaloes to Farmers</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Family’s Involvement</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

In the early phase, she solely looked after entire work from collecting/weighing milk, checking fat along with household chores. Ironically, there was no electricity in the village; no refrigerator, due to which the milk used to split. There was no road up to the dairy. She used to hire local labours to carry milk on their back, for which they get paid. For almost a decade, she faced a huge loss. Despite these challenges and loss, over the years with the support from her husband, family members, and her consistent hard work, she grew from one small dairy to eight dairies and evolved into a successful business of monthly NPR 3900,000 transactions.

“ My husband used to go to ask for money with the referral from the local political leaders as people used to trust male than female. Once, we had borrowed money from a shopkeeper and we could not pay back the money on time. The moneylender came and captured our vehicle (with milk) and threatened us to throw all the milk on the road. I still remember that day and feel devastated.”
The turning point was when Mina’s elder son fully joined dairy by driving vehicle filled with milk to the collection centre of Lalitpur district and handled workers. Now, she is taking care of the overall management, whereas the father and son manage the outside matter. While making critical decisions, Mina along with her family members decides on the matters. She has built a beautiful house in Lalitpur and also bought land in Kathman-du. She has a dream of opening a large and organized dairy in her own land of Kathmandu. Mina had received skill training from Scaling up Energy Access through Women’s Economic Empowerment (WEE Nepal Project) implemented by Centre for Rural Technology, Nepal (CRT/N) supported by The International Network on Gender and Sustainable Energy (ENERGIA)/Humanist Institute for Cooperation with Developing Countries (Hivos), the Netherlands. She shared that the project helped her to understand the importance, efficiency of electricity and proper management of accounts, calculating monthly profit and loss, and business strategy plans.

Mina stated that, “During the loss, I was not even able to pay the money to the local farmers who provide milk for the dairy. In that tough situation, I almost thought of closing the dairy I had no idea of how to pay back the money of farmers. But, I decided not to give up. Finally, I overcome all the hardship hours. The trust which I build with the farmers and my honesty with them helped me to become a successful woman entrepreneur”

Mina helped to enhance community ownership by encouraging people to start their own business and set a good example of a social entrepreneur. Her dairy business really encouraged the local farmers towards buffalo farming professionally.
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 this district has total of 317,532 populations of which Chhetri, Rai, Magar are principal ethnic groups. In 2011 the literacy rate was 69 percent and female percentage was 53 percent. According to the same census, 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 its 2018/19 plan. 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

Rachana Guragai, age 34, is a resident of ward no. 6 of Gadi Gaupalika. She is an educated housewife. 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. She has been doing this task daily using the mud Improved Cookstove (ICS). She has been using this improved cook-stove for the last two years.

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 an ICS in her kitchen.

Fortunately, her neighbor Kamala Kumari Thapa received training on ICS installation from WEE Nepal project.

Rachana's Experience on ICS

Rachana Guragai is very happy with the ICS. The reasons for her happiness are plenty: some of them she highlighted are;

» 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, Tank Raja Guragai and mother-in-law Chetra Kumari Guraigai also appreciate the ICS very much. 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.

"I am relieved from the smoke problem after using Improved Cook Stove."

- Rachana Guragai, ICS user
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 Rachana Guragai presents some evidences of positive impact on use of ICS. In Udayapuradhi 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 environment 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.

“There are multiple benefits of ICS, if we use it and maintain it properly.”

- Tank Raja Guragai, Father in law of Rachana