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## Women and the Clean Energy Vehicle - Ghoda Ghodi Municipality, Kailali:

By Dr. Indira Shakya, Dr. Purushottam Shrestha and Ms. Ashma Pakhrin

### *Introduction:*

The Centre for Rural Technology, Nepal (CRT/N) together with the M. S. Swaminathan Research Foundation (MSSRF) of Chennai in India is engaged in a research project supported by ENERGIA, the Netherlands. The research project “The political economy of energy sector dynamics” was initiated in January 2015. It attempts to contribute to a better understanding of the relationship between the deeper issues of the political economy of the energy sector and gendered access to energy services within communities and at the inter and intra-household level and rural and peri-urban contexts. In doing so it focuses on the use of different energy forms: grid electricity, biomass, biogas, solar and LPG for domestic and productive uses. This case study has been developed as an evidence for highlighting the impact of energy access on livelihood changes and empowering women. The e-rickshaws (hereafter referred to as Tempos) has been especially selected to present the changing trends in the roles of women and factors necessary to encourage women to stay abreast in a male dominated arena - the transport sector.

*This Case Study has been prepared as part of the publication under the Political Economy of Gender Factors in the Energy Sector: A Gender and Energy Research Programme supported by ENERGIA/HIVOS, the Netherlands. Although the Research Project was led by MSSRF in Chennai, India, this study focusing on specifically on Nepal has been prepared by the Project Team of the Centre for Rural Technology, Nepal (CRT/N).*

*CRTN acknowledges the work carried out by the Team, Dr. Indira Shakya, Dr. Purushottam Shrestha and Ms. Ashma Pakhrin and expresses sincere gratitude. We hope that it will be a helpful source of information for planners and practitioners engaged in the field of energy in Nepal and abroad.*

*Mr. Hari Gopal Gorkhali  
Acting ED, CRT/N*

**The Three Wheelers in Nepal:** In Nepal, an overwhelming majority of women are engaged in household works. In the 21st century, with change in time, available opportunities and development, women have begun to think of careers beyond domestic works. Because of literacy, poverty and the urge to do something different women have endeavoured to advance their status. Some of the driving factors are political situation, domestic violence, migration with urbanization and the available opportunities. One such sector is the transport sector where one can observe a number of women driving the tempos, otherwise primarily a male dominant area. Today even in the rural areas more and more women are entering the sub-sector for livelihood sustenance.

The tempo is a three-wheeled battery-powered vehicle used as a taxi. Women tempo drivers have been increasing in number in Kathmandu, capital city of Nepal. Running at an average speed of 60 kilometre per hour, safa (clean) tempos serve at least 127 thousand people every day transporting individuals to their destinations.

**Advent of Women in the Sector:** These electric vehicles were introduced in Kathmandu in 1975 when



Figure 1: Sarita at the wheels driving her passengers to their destination

the Chinese Government assisted to set up the trolley bus system along the 13 kilometre route between Tripureswor and Surya Binayak road. Not only are the electric vehicles more eco-friendly, they are much cheaper to run than their smoking counterparts. A decade later, the number of safa tempos (electric, and LPG) running in the streets of Kathmandu has exceeded 600 and the number of these vehicles is continuously increasing. The fleet grew from seven in 1993 to 500 in 2005. According to the statistics of Department of Transport Management, 2017 there are 11,894 registered tempos plying across the country. Meanwhile, an indigenous electric vehicle industry took shape. During the early 2000s, a few recharging stations were installed and four assembly factories were built. Nepal's demand for electric vehicles has risen especially after the earthquake in 2015.

The number of women drivers in Nepal has climbed over the last few years, and some women have even been driving for international organizations like the UN and foreign embassies. This sudden surge of women drivers is breaking gender barriers and proving that there is nothing stopping women from working in fields traditionally dominated by men. There are more than 700 electric tempos in Kathmandu valley and about 150 regular female drivers, and 350 are part-time women drivers. Among them are around 70 women who own tempos which they have bought on a loan. The tempo, a three-wheeled, battery-powered taxi is a common sight in the streets of Kathmandu, but people are only now getting used to the sight of women in the driver's seat even in cities outside the Kathmandu Valley.

**Introducing Sarita Dagaura Chaudhary:** Seated in the driving seat of the electric tempos, waiting to drive customers to their destination is Mrs Sarita Dagaura Chaudhary. The 42 year old mother of three children and a grandmother of three grandchildren clads herself appropriately in salwar suit and takes on to the driving wheel. This woman from an ethnic group of far western region of Nepal has learnt to concentrate hard as she accelerates, brakes and then backs the electricity-powered vehicle in the highway of Ghodhaghodi Municipality and dusty lanes of Sukhad. She has successfully stepped into this male dominated sector, the transport sector, in one of the least developed regions of Nepal, Kailali District. Sarita is the only female electric tempo driver of the 29 that are operating along the roads of Ghodhaghodi Municipality since last seven months.

She has been driving the vehicle for the last 18 months and managed to collect some money for paying back the loan, maintaining the rickshaw, household expenses and making some savings as well. Now driving has become her principal source of income.

**Sarita's Perspective of Driving:** "My work is my savour, and no work is wrong as long as it is done with honesty" says Sarita when questioned about her work. As a farmer, farming in her own land and helping others in seasonal farming was her regular work. However, once her husband left for another woman, she was left alone. Her children and husband provided no support but instead depended on her for their expenses. With the hard earned money dwindling and no one in the family respecting her valuable time, she looked around for different means of income. She then noticed women driving the tempo in Dhangadhi, the nearest city, and decided to try her hand at it. With the help of her brother, she bought a new tempo. However she had no formal training, she learnt driving from her brother. Despite the fact that she did not have any formal training it was easy for her to start her new profession as the tempo driving does not require any license and her registration at the E-rickshaw Association provided her necessary support for insurances.

**Initiating the Profession:** She purchased the tempo with a loan of Rs.250, 000, from Sunrise Bank. The necessary collateral, land was provided by her brother, Bhishnu Kant Chaudhary. At 12 per cent interest, she is paying a monthly instalment of Rs. 10,200. The repayment period is 3 years and she continues the repayment at present.

She expresses, "If there is some support I would like to brush up my driving skill, so far the only training I had is a one day training from Bajaj, it was more of an introduction to the vehicle".

**Her Day and Her Income:** She begins her day at 6 AM remaining at the wheels till 7 PM. Charging Rs 10 per passenger and driving around for nearly 11 hours, she is able to earn Rs. 800 to Rs. 1200 per day. With an income of Rs. 25,000-Rs. 28,000 per month, she has a monthly savings of Rs. 15,000. To date her largest expense is Rs. 1500 per month for charging the battery used to run this electric vehicle. The vehicle needs to be charged daily for nearly 8 hours. Besides, she also deposits Rs. 100 per month to the E-rickshaw Association set up to help its members in case of any accident. She has also initiated a daily saving of Rs 500 at a cooperative society. The income from the three-wheeler has met the household expenses especially for electricity and school fees of children. Sarita's living has been improved. With her income, she is able to take care of her family.

**Changes for Moving Ahead:** To save time from household chores, over the last few months she has even switched her cooking fuel from traditional fuel wood to improved cook-stoves. She has just recently begun using LPG. "I understand the benefits of reducing the use of fuel wood and the impact of clean fuel on health and the environment. For me this change in the cooking fuel comes from the need to be on the road before the other drivers."

She further goes on to say, "Tempos are easy to operate and are safe, and one can earn good money from driving it, this is one thing I have learnt over this period of 18-months." The tempo working day is from 7 AM to 7 PM, which is also comfortable time for her. She is able to have enough time for lunch and to prepare dinner in the evening after work.

**Personal Changes:** This is also true that being a woman, the driving industry is not so easy in this society. They have to face rude passengers and the public. If they make some mistakes, people say it is due to

gender differences. There are some challenges too, for example; people think that women in this profession are not good - morally. She vehemently expressed the need for literacy and training programme which would have made it possible to understand the terms in this field. Having taken up this profession she says "I do not accept that men are born stronger and women are weak and are not able to do these challenging jobs'.

"This driving profession has made me more confident and capable of managing my family even better" states Sarita. She agrees that women are brought up in an environment where women are taught that they are only born for household work, not for outside jobs. But working in this field for the last few years, "I am happy" she states however, "I would like to learn many more things such as fixing mechanical problems of the vehicle and if possible assembling it as well."

"It's not enough being a skilled driver. You need plenty of guts, attitude, and people skills," says Sarita. "Avoiding potholes and manoeuvring a tempo over uneven roads is one thing, dealing with bossy traffic cops, angry passengers and working late shifts is something else." However, one needs to put forth a no-nonsense and forthright attitude, which are effective in deterring those who try to make trouble for her. She has become used to the curious stares of passengers and passers-by, for whom a woman at the wheel of a public vehicle is still a novelty.

She proudly claims to be the treasurer of Auto Association. Altogether there are about 65 autos in the area, of which about 24 are operated by electricity.

**Social Changes:** In the early days she commonly heard people say "Females are no less capable of operating automobiles, yet the stereotype that they are still exists. In the beginning, people used to watch me driving the tempo. It was difficult to get them sit in my vehicle. But now they are more willing to let me drive them to their destination".

**Words of Advice to other Women:** She suggests them to have self- confidence. To avoid conflict one should manage time; for safety make it a habit of return home in time and above all keep the money carefully and safely (deposit in the bank). Women should take up some form of work that enhances their financial status. This is helpful to families with weak financial status and having few economic resources. It is also beneficial for families where the husband's income isn't enough to care for the children. Above all women will not have to depend on their husbands and are able to stand on their own feet and are able to fulfil their basic needs on their own.

**Necessary Support from Government:** The Government has also included some policies favourable to electric vehicles that include exemption on Value Added Tax (VAT) and one percent custom duty levied on the import of safa tempo's chassis, engine, motor, battery and battery charger.

For encouraging women to take up this job, she states, "the government also should give more facilities for women, so they have easy and affordable access to learn to drive and be in this growing profession. The women in the driving industry are a testimony to the empowerment of women in this country where women have been discriminated in many ways. If people accept women as tempo drivers more easily, then this can encourage women to enter into many other fields where women have traditionally been excluded".

Sarita suggests that the Government could further women's participation in this growing profession. There are complexities in maintaining the vehicle. For every 1500 kilometres, one has to check the gear

box oil, brake fluid levels and the steering box, grease the brake and joints, clean the springs and when necessary adjust the brakes.

Government must encourage these women by providing women affordable access to driving instruction together with technical aspect of the vehicle. There is the need to support women who are already working challenging, non-traditional jobs, to further female empowerment and end gender discrimination. This will encourage Nepali girls many more strong role models like Sarita to look up to when they dream about their futures

**The Philosophy:** When asked about the philosophy of life which drives her she answers humbly about three things in life. They are: honesty, reliability and confidence. She also told that after all the early age sufferings she wanted to show the world that a single woman can do wonders. She was also driven by the orientation of doing something different. The choice of business was also influenced by the need to sustain herself financially and the family. She had to choose a business which looked "decent" in the eyes of traditional Chaudhary and Nepali society as well. Otherwise she could have faced many socio-cultural problems.