

Ampersand female driver

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E-TRANSITION, WOMEN'S REVOLUTION

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'Africa e-mobility revolution' is how **Ampersand**, a Rwandan start-up, presents its work with **e-moto taxis** in Kigali, Rwanda's capital, largest city, and economic centre. But, aside from technological innovation, where does the real e-mobility revolution lie? And how far does it go?



Ampersand, along with UN Habitat, GIZ Rwanda, and SOL+, delivers professional motorbike driving training to female drivers to promote women's economic empowerment and employment in Rwanda.

*Launch of the initiative
Ampersand ([Twitter](#))*

The e-mobility transition can be a unique opportunity to bring further changes and initiatives to the forefront, helping improve the quality of life for all - women included. Within the current sustainable transformation that cities are going through, innovations such as e-mobility should also support social advancement, crucial for ensuring long-lasting positive outcomes, instead of reproducing old biases.

In African, Asian and Latin American contexts, the e-transition has different meanings for cities experiencing fast-paced urbanisation. From Kathmandu (Nepal) to Kigali and Quito (Ecuador), urban mobility comes in many shapes and is often strongly connected to local cultural and societal behaviour, blurring the lines between transport infrastructure and societal constructions. All of this translates into creative and particular ways of moving around that might seem overly complex from an outside perspective.

But, aiming at a more positive future, they use this complexity as a chance to welcome new solutions, including e-mobility as a way forward.

Despite their merits and local adaptiveness, these cities' formal and informal transport systems face diverse challenges; the main one being sustainably advancing these transport systems while preserving their qualities and solving their shortcomings. Ensuring safety, inclusivity, affordability, and gender mainstreaming with innovations that respond to the local specificities and context are at the core of this journey. That is where the real revolution now lies.

A gender (e-)perspective

Innovating in urban mobility also means advancing in social aspects. Ensuring actions targeting women within the e-transition is a good example of social innovation and gender mainstreaming.

The underrepresentation of women in transport is still very much a reality worldwide. In a male-dominated sector, women continue to face a multitude of barriers specific to their gender to enter and grow in the sector. Situations in which women working or using public transport are subjected to harassment and violence, including sexual violence, are still common in many cities, whether in Africa, Asia, Latin America or Europe.

How can we transform these scenarios that contribute to and maintain gender inequalities in transportation and mobility? The e-mobility transition opens new possibilities for ecosystem changes with new actors, including women, and can generate proactive measures aimed at them. And that creates the prospect of altering women's role within mobility.

The EU-funded SOLUTIONSplus project (also, SOL+) gives some insight into how cities can ensure that women are not only a part of the e-transition but are also at its heart. The project works closely with local authorities and initiatives in supporting the electrification of mobility in demonstration actions in Hanoi (Vietnam), Pasig (Philippines), Kathmandu (Nepal), Kigali (Rwanda), Dar es Salaam (Tanzania), Quito (Ecuador), Montevideo (Uruguay), Madrid (Spain), Nanjing (China), and Hamburg (Germany), ensuring relevant knowledge exchange and training network in the various aspects pertinent to e-mobility, including a gender perspective.

The power of Kathmandu's Safa Tempos

The small electric 3-wheelers Safa Tempos are a vital part of Kathmandu's landscape and daily life. Carrying around 11 passengers at a time, these vehicles are an easy and affordable way of moving around the city and are particularly attractive to students, day labourers, and mothers with babies: one may hop on at various points and just need to bang on the metal roof when they want to hop off!

Introduced in Kathmandu in the late 1990s to replace banned pollutant diesel 3-wheelers, there are now around 600 Safa Tempos in the city, and, in addition to their affordability, popularity, and environmental benefits, they authentically represent an entry door for women's involvement in transport. After some trailblazing women who saw the possibility of better employment and financial independence started driving the Safa Tempos, pilots proactively targeted women to support and increase their involvement in the industry, enabling their free training and facilitating access to loans.

SOLUTIONSplus' actions in Kathmandu aim to modernise Safa Tempos starting with the remodelling with chassis repair, drive unit, battery replacement, and bodywork. In August 2022, the project promoted a 28-day training for female drivers with the help of local partners. The training covered drivers' capacity building, including classes on vehicle parts and safe operation in different road conditions, as well as on technical repair and maintenance and getting a driving license.

The ripple effect of initial local actions and SOLUTIONSplus' ongoing ones in Kathmandu led to increased participation in the transport sector, increased representation and household incomes, and access to healthcare and education for women — currently, half of the Safa Tempo drivers are women and around 200 of them are not only drivers but also entrepreneurs who own their vehicles.



*Safa Tempo female drivers training
SOLUTIONSplus Project*

Kick-starting Kigali's e-revolution

Taking inspiration and learnings from the Safa Tempo case, SOLUTIONSplus actions in African cities sought to improve women's participation and representation in the e-mobility transition. For example, in Kigali, the project took the electrification of the moto-taxis as one of its actions. The moto-taxis are crucial in the city's daily mobility, constituting 16% of passengers' journeys. But with around 36.000 registered drivers, all men and no women, the project identified the electrification of the moto-taxis as a chance to steer away from this pattern and enable women's participation in the sector.

SOLUTIONSplus assessed the challenges and success factors for gender mainstreaming in training and employment in the e-mobility and public transport industry. The assessment considered the frameworks and practices for gender mainstreaming of six transport-oriented social enterprises in East Africa. From this assessment, the project joined forces with [Ampersand](#), GIZ, [Jali](#) and [FLONE](#) Initiatives and conducted training for moto-taxi driving for 35 women, where 68.57% obtained a driving license, and 24 e-motos were delivered to these women. The project also published some recommendations for improving training outcomes and the employability of women in the public transport industry.

Understanding, Training, Retaining, Evaluating and Disseminating were the five key principles that guided the e-moto taxi training for women in Kigali. In Understanding, a baseline assessment of previous gender-inclusive projects and their success or failure factors was conducted. Conducive training settings to create a protected environment were central in Training. Retaining means ensuring conditions for women to use vehicles in real-life situations. In Evaluating, the perceptions of the trained women and the wider female population in the city were considered. And Disseminating, with peer-learning and replication at various scales.

The e-future is female

The learnings and experiences from Kathmandu and Kigali show that even if small, pilots and actions specifically targeting women can have a positive catalyst effect and enable space for women's empowerment in the workforce and society. The e-mobility transition in both cities created better employment opportunities and financial independence for women but also helped reshape women's presence and image in the public urban space. Stronger participation and presence of women in transport and public spaces create a virtuous circle, producing safer spaces and transportation and influencing more women to reassess their places and opportunities in society.

If, in the late 1990s, only one or two women ventured into driving Safa Tempos, today they own them and drive full-sized public e-buses. In Kigali, the learnings from the e-moto taxis can be replicated with shared e-bikes and encourage women to cycle more. The potential to replicate such experiences is substantial, with exchanges between the Rwandan capital and other cities and countries in Africa already taking place. In Quito and Montevideo, women are not yet as confident in riding and working with e-cargo bikes as men. Still, the project can inspire and support them to shift that and embrace this new work possibility.

The e-transition must not limit itself solely to look into spacing technological innovation but also account for its social dimension to fully embrace its potential to enact positive change in gender-mainstreaming transport and mobility. The SOLUTIONSplus cities are gradually doing that, and many others could follow suit.

*E-mobility in Rwanda
Ampersand ([Twitter](#))*

