United Nations ECE/AC.21/SC/2019/8–EUPCR1814179/2.1/THE PEP SC/8

Economic and Social Council

Distr.: General
9 August 2019

Original: English

Economic Commission for Europe

World Health Organization Regional Office for Europe

High-level Meeting on Transport, Health and Environment

Steering Committee of the Transport, Health and Environment Pan-European Programme

Seventeenth session
Geneva, 21–23 October 2019
Item 5 (d) of the provisional agenda
Preparation of the Fifth High-level Meeting on Transport, Health and Environment: draft declaration and its annexes

Executive summary of the study on jobs in green and healthy transport

Note by the secretariat

Summary

A study on jobs in green and healthy transport has been carried out by the International Labour Organization, in cooperation with the United Nations Economic Commission for Europe (ECE), the World Health Organization Regional Office for Europe and other organizations, in the context of the ongoing Partnership on Jobs in Green and Healthy Transport within the Transport, Health and Environment Pan-European Programme (THE PEP). The study continues the work of THE PEP on evaluating the job creation potential of green and healthy transport. The study expands the scope of the previous analysis. It shows how changes towards green and healthy transport alter the structure of sectors and jobs across ECE member States and also in other parts of the world, given that greening the transport sector activates different national, regional and global value chains and employment in different industries and areas of the world.

This document provides an executive summary of the report of the study.

GE.19-13458(E)

1913458

Study on Green and Healthy Jobs in Transport

1. The study,[1] commissioned by the Transport, Health and Environment Pan-European Programme (THE PEP) Steering Committee through its Partnership on Green and Healthy Jobs in Transport, reviews the economy-wide employment implications of an accelerated shift towards greener land transport in the United Nations Economic Commission for Europe (ECE) region.

2. Land transport is an important sector for job creation and development. It employs over 60 million workers around the world, representing more than 2 per cent of global employment. Total employment is even higher when the indirect jobs that depend on related value chains in the transport sector are taken into consideration.

3. At the same time, transport is also a contributor to environmental degradation and worsening health. To meet global and local environmental objectives while promoting decent work, employment and transport development, the environmental sustainability of the sector needs to be at the heart of policy development.

4. As a part of the study, a macroeconomic multiregional input-output based model was used to analyse the job impacts of four green transport scenarios in the ECE region. A business-as-usual scenario was projected up to 2030 and compared with each of the green transport scenarios, in which an accelerated expansion of public transport and the electrification of vehicles was modelled. The scenarios assessed were:

(a) For public transport:

- PT.1 - Doubling investment in public transport
- PT.2 - Free public transport;

(b) For electrification:

- E.3 - Introduction of a voluntary or mandated target of 50 per cent of vehicles produced to be fully electric
- E.4 - Ban on internal combustion engines for light-duty business-use vehicles.

5. The results indicate that there is a diversity of job impacts across the ECE region as each country’s transport sector is linked through different supply chains to other economic sectors within the country and across the world.

6. The analyses presented in the report of the study suggest that employment opportunities do exist in advancing green and healthy transport in the ECE region through the facilitation of the increased use of public transport and the electrification of private transport. The results show that stimulating the use of public transport in the ECE region through the doubling of investment in the sector (scenario PT.1) and providing free public transport to users (scenario PT.2) could create a net total of at least 2.5 million extra jobs worldwide in green and healthy transport. This figure increases to at least 5 million jobs when the wider impact on other sectors of the economy is considered. More than half of these jobs would be in the ECE region, with the remainder spread across the rest of the world.

[1] Information note 4, thirty-sixth meeting of the Bureau of the Transport, Health and Environment Pan-European Programme (Bonn, Germany, 1 and 2 July 2019). Available at https://thepep.unece.org/index.php/events/meeting-bureau.

7. The introduction of a voluntary or mandated target of 50 per cent of vehicles produced to be fully electric (scenario E.3) indicates that a net total of close to 10 million jobs would be added to world employment across all sectors, of which 2.9 million will be in the ECE region alone. Focusing on the transport sector alone, it is estimated that employment would increase by 0.7 million jobs, of which about 0.6 million in the ECE region. Scenario E.4 (a ban on internal combustion engines for light-duty business-use vehicles) would lead to an additional 0.4 million jobs in transport and up to 8.5 million jobs when taking into account the impact on other sectors. As a result of the current and future locations of jobs in the sector, the ECE region is likely to see a contraction in transport-related jobs as the net employment creation that results from these scenarios hides important levels of reallocation, with jobs move away from the motor vehicle manufacturing and petroleum extraction and refinery sectors towards the service sector.

8. The overall results of the study – pointing to the potential for net employment creation – are mainly driven by a structural shift from fossil fuel consumption and production to increased use of public transport services and electrification of transport modes. Reduced fuel consumption has particularly strong positive employment effects on oil importing countries. Money that was previously spent on the fuel industry, which has a very low employment content, is spent on other sectors of the economy with higher employment effects, such as public transport.

9. In the electrification scenarios modelled as part of this study, the electric machinery, appliance and battery production industries stand to gain, whereas employment reductions are expected in the fuel value chains and traditional internal combustion engine car manufacturing industry. Countries that have a strong internal combustion engine car manufacturing industry and that are not seeking opportunities to switch to electric vehicle production will face job reallocation to countries that lead the drive towards electric transport.

10. Figures I and II below summarize the net job creation (in millions), for the transport sector and the whole economy respectively, from policy choices for green and health transport.

Figure I
Net job creation according to the modelled scenarios for the transport sector (Millions)

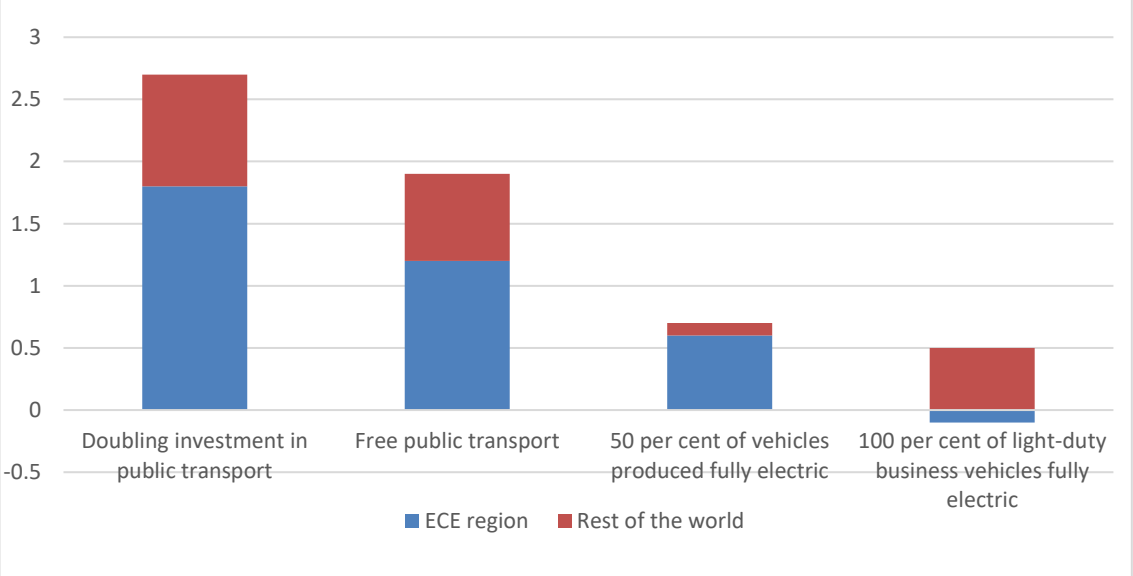
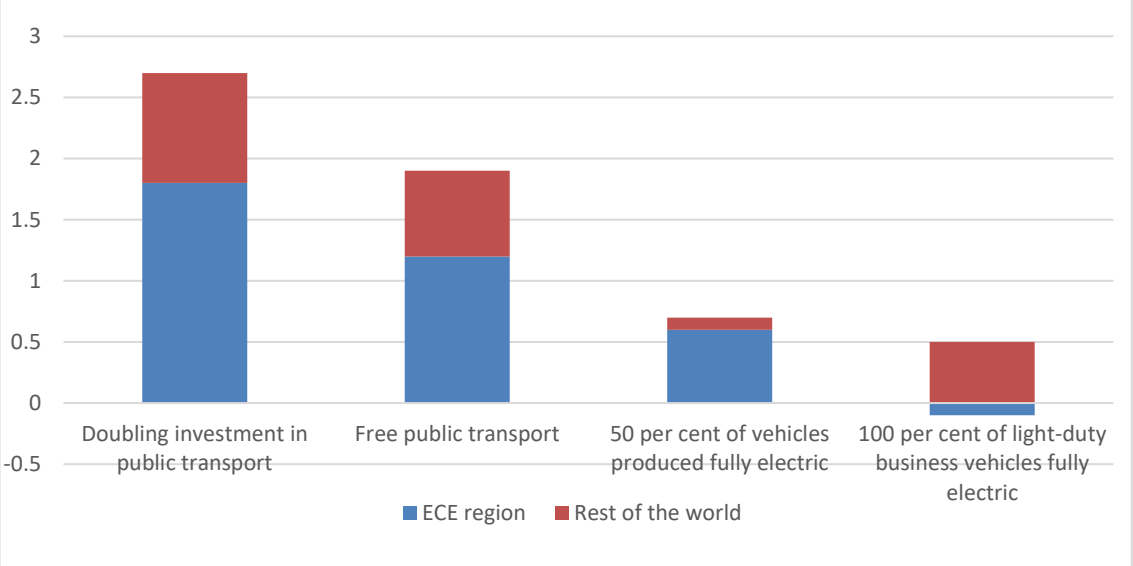


Figure II
Net job creation according to the modelled scenarios for the whole economy (Millions)



11. To capitalize on employment opportunities and ensure that the transition is fair for workers, enterprises, regions and countries that may face restructuring, a comprehensive package of policies should be implemented alongside any efforts to green the transport sector.

12. This policy package should include skills development policies, social protection policies, active labour market policies and policies to promote social dialogue, notably when it comes to financing green transport policies through green taxes, and fundamental rights at work. The package should also include the deployment of incentives and industrial policies to develop the industries that will grow under a green transport scenario and that may be undeveloped in the ECE region.

13. Advancing sustainability through the expansion of public transport and the electrification of private passenger and freight transport is but one of the drivers by which the future of transport will affect employment throughout the economy. Other drivers include automation, shared mobility, cycling, hyperloop, drone delivery and buy-local or short-circuit economies. These areas could be studied in more detail in a future analysis.