



# Urban Pathways

## Hanoi VIETNAM Country Profile



### Country overview

Vietnam has a population of 93.5 million (2015) and is located in Southeast Asia between the Mekong River Delta to the south, the Red River Delta to the north and the South China Sea to the east. Between the period of 1980-2015, Vietnam's rate of population growth in rural areas significantly declined to near zero, while the resultant migration has led to rapid urbanisation across all major cities. Although the country's current level of urbanisation is low at around 35.7%, it is projected that urban areas would accommodate over half of the country's population by 2045 (Vietnam Habitat III National Report, 2016). While one-third of the current urban population is presently concentrated in the two largest metropolitan regions of Hanoi and Ho Chi Minh City, Vietnam's secondary tier of the next three largest cities, namely, Can Tho, Hai Phong and Da Nang, is also deemed critical in addressing the future challenges of low-carbon growth.

Vietnam's economic transition to a lower-middle income country is achieved through intensive policy reforms which shifted a centrally-planned economy to a market-driven one and led to greater agricultural yields, manufacturing output and foreign investments. In 2016, Vietnam's GDP was 202.62 billion USD, while the GDP per capita was 2,060 USD in 2016 (World Bank, n.d.). Vietnam currently contributes 0.6% of the world's total greenhouse gases (GHG) emissions and ranks 27th globally in terms of GHG emissions (Vietnamnet, 2017). For the period of 1990-2014, the country's cumulative GHG emissions were 252 MtCO<sub>2e</sub>. During the same period, GHG emissions for energy (electricity sub-sector) were 50 metric tons, for transport: 31.9 metric tons and waste: 9.4 metric tons (WRI-CAIT, n.d.).

### Energy

Vietnam's energy sector is the largest contributor to its GHG emissions, accounting for over half of the country's total emissions. Energy generation is characterised by high reliance on fossil-fuel sources, with coal and oil each accounting for one-third of the current energy mix. The National Government considers coal-fired power generation to be essential for energy security, which is projected to account for half of the energy mix by 2030. Moreover, the nationwide demand for electricity is estimated to increase four-fold by 2030, driven by the present and future high rates of both economic development and urbanisation. With such forecasts, the promotion and rapid implementation of energy efficiency and renewal energy-related measures is essential for Vietnam to achieve its INDC targets.

### Transportation

Vietnam has the highest per capita ownership of motorcycles in the world, with motorbikes accounting for 96% of the country's total number of vehicles. In urban areas, motorcycles are the most preferred choice for mobility because of its low relative price as well as lack of reliable public transportation. Furthermore, given the rapid economic development of the country, there has been a steep growth of car-ownership. Car-sales in Vietnam have recorded an annual growth of 39% since 2012, which is one of the highest in the region. Vietnam's high dependence on private motorised vehicles powered by fossil fuels has resulted in negative consequences in three critical transport-related attributes – (a) GHG emissions: Transport presently accounts for 12.7% of the total GHG emissions of

Vietnam (WRI – CAIT, n.d.); (b) Air quality: Air pollution in urban areas, particularly, Particulate Matter concentration, is significantly higher compared to other Asian cities (OECD, 2018); and (c) Road Safety: Vietnam registered one of the highest rates of traffic-related fatalities in Southeast Asia at 25 deaths per 100,000 inhabitants, a majority of which involved motorcycle riders.

### Waste management

Vietnamese cities have significantly high rates of solid waste generation compared to other Asian cities, which is also the case of Hai Phong. Comparatively, the current waste management capacities are insufficient with only 60% of the total urban solid waste generated nationwide being recycled or treated in sanitary land-fills. According to the MONRE, out of the 98 open landfill sites operational in urban areas, only 16 are scientifically considered hygienic. The waste sector also accounts for 6% of the country's total GHG emissions.

In the past decade, the National Government has issued three successive decisions, approved by the Prime Minister, that serve as policies for governing solid waste management. These comprise of – (a) The 2008 Decision which outlined a plan up to 2020 for the nationwide construction of treatment facilities; (b) The 2009 Decision which set targets for treatment of industrial, hazardous and non-hazardous waste up to 2025; and (c) The 2012 National Strategy for Environmental Protection which supplements the 2008 Decision in order to strengthen the implementation of waste treatment-related initiatives.