KEY MESSAGES

- Today, there are nearly 800 million cars on the world’s roads. The International Energy Agency forecasts that this will increase to 2–3 billion by 2050, with the bulk of this growth occurring in the developing world.
- Unsustainable transportation systems create an increased risk of diseases related to airborne pollution. Congestion forces people to spend more time in traffic, wastes fuel, and increases the cost of transporting goods. Poorly managed transport systems also contribute to driver and pedestrian fatalities: each year, more than 1.2 million people are killed on the world’s roads, and 90 percent of these deaths occur in developing countries.
- In the absence of good public transportation systems, the urban poor are further marginalized because of where they live.
- More-equitable forms of mobility represent a tremendous opportunity for urban populations. Well-managed transportation systems can facilitate access to jobs, markets, and schools—improving the quality of urban life and helping to lift people out of poverty.

THE PROBLEM

At the 1992 Rio Earth Summit, governments adopted an international action plan for sustainable development that included sustainable transport. But no formal targets, commitments, or other forms of accountability for transport were created. Today, most transport investments continue to favor unsustainable transport modes, such as high-capacity roads, rather than electric-powered public transit or bike-sharing programs.

In the next 20 years, the world will see massive growth in the demand for transportation, fueled by rapid economic development and urbanization. In many instances, transportation systems get worse as a country grows more prosperous. The current state of transport in most countries harms the urban population by filling the air with pollutants, physically isolating people from opportunities in cities, and trapping people in traffic for hours each day. In cities in the developing world, transportation is the source of up to 80 percent of harmful air pollutants, which can lead to cardiovascular, pulmonary, and respiratory diseases, as well as cancers.

Poorly managed transport also isolates the urban poor, often forcing people to choose either low incomes in informal-sector employment that is close to affordable housing, or higher-paying jobs that force them to spend a larger share of their income and time commuting. In many cities even walking is not a safe option: in Surabaya, Indonesia, 60 percent of roads have no usable sidewalks.

Because almost all trips outside the home must involve a vehicle, congestion in many cities forces people to spend more time on the roads rather than at home or at work. Residents of Lima, Peru, are estimated to lose an average of four hours each day in travel, which leads to a loss of approximately $6.2 billion, or around 10 percent of the city’s GDP, per year.

Unsustainable transportation systems also harm the environment. Transportation is now the fastest-growing source of global emissions. Greenhouse gas emissions caused by transport are expected to increase 250 percent by 2050, and carbon dioxide emissions from the sector are expected to grow 300 percent by 2050. Most of these increases will occur in the developing world.

MOVING FORWARD

International agreements—from the 1992 Rio conference, to the 1997 Kyoto Protocol, to the 2000 Millennium Development Goals—have so far failed to facilitate concrete plans or commitments to improve transportation. A new, bottom-up approach is now the most promising pathway to sustainability, wherein nations set their own goals for sustainable transportation, receive financing from industrialized
countries, and cooperate regionally to build capacity and realize goals.

Although transportation problems like congestion or air pollution are local phenomena, to improve them requires commitment at the international level. Multilateral organizations like the United Nations need to create incentives for global participation and progress, as well as systems for monitoring and reporting progress. Without these formal frameworks of commitment, the harmful effects of unsustainable transport will multiply and intensify.

Transportation planning must undergo a major shift in approach to check the rate and pattern of motorization, the level of activity of motor vehicle use, and the character of vehicle technology and fuels. Transportation experts have developed a new sustainability paradigm called “Avoid, shift, and improve”: avoid unnecessary trips with smarter planning, congestion pricing, and telecommunications; shift trips to more sustainable modes with sound, incentives, information, and investments; and improve vehicle efficiency with cleaner fuels, better-operated networks, and vehicle technology that is better adapted to individual environments. Examples of this approach include designated bus lanes, bike-sharing programs, parking limits, and mixed-use community development.

Multilateral development banks (MDBs) have traditionally steered their transportation investments toward building roads for freight and motorized transport in developing countries. Over the last decade, a shift in approach has seen the creation of action plans, strategic initiatives, and policies on more sustainable transport. These initiatives have had a direct financial impact: investment in transport by major MDBs has grown significantly in the last two years, reaching nearly $20 billion in 2010, with continued growth expected. It is expected that in the coming years, the portion of MDB funding for road construction will decrease while funding for urban transport, railways, traffic management, and safety will increase.

It will take a combination of multi-stakeholder involvement, international investment, and a realigning of national priorities to improve the sustainability of global transport. It is important that countries and banks report on their investments and resulting impacts, to demonstrate the great potential for improvement in transport.

If it is well-managed, sustainable transport can easily accommodate the rising demand for mobility that is projected to come with rising population, employment, and trade. Urban development and transportation should be planned and adapted around the physical scale, needs, and desired lifestyles of citizens—not vice-versa. When creating international sustainable development agreements, nations must adopt specific transport-related sustainable development goals with targets and indicators to measure progress. Sustainable development agreements must foster multi-stakeholder partnerships by sharing data with NGOs, civil society, private corporations, and academia.

Millions of motor-related deaths and endless hours lost in traffic are not inevitable consequences of development; with planning and close management, transport can keep pace with the increased urban population and its mobility needs in the coming decades.

This brief is based on Chapter 4, “Moving Toward Sustainable Transport,” by Michael Replogle and Colin Hughes, published in Worldwatch Institute’s State of the World 2012: Moving Toward Sustainable Prosperity.