

‘Throughout the past decade transport projects have played a pivotal role in economic development and poverty alleviation’ World Bank, 2007

In many parts of the world *isolation* is a major cause of poverty. Imagine you live in a remote hamlet without access to any kind of transport. How would you get to market to sell surplus goods? Or buy things you need for everyday life? How would you get your children to school? And how would you get access to a doctor and medicines if you were ill?

Transport is a major global issue, affecting us all and touching every facet of modern life. In the West we have come to expect fruit and vegetables out of season, cheap consumer goods from abroad and to be able to travel to every ‘corner of the globe’ with ease. Over history, transport by land, sea or air has enabled voyages of discovery, been pivotal to trade, allowed access to healthcare, education, water and to different cultures. People depend on transport for their internal relationship to other communities and external relationships with other countries. We all need transport to move people, resources, energy, products and information. With the world’s growing population and continued importance and growth of cities and global economies, transport is a key issue in how we can create a sustainable planet. What are the global issues and development challenges of our transport needs?

A global context

All over the world things are transported by land, air and sea. Transport affects the climate of our planet through its contribution to climate chaos. In the UK it is the fastest-growing contributor of the greenhouse gas carbon dioxide. Ease and economy of international travel has made movement of populations easier, increased the mobility of the world’s workforce and contributed to the global marketplace by allowing consumer goods and food to be transported cheaply.

Transport assists in the achievement of the Millennium Development Goals (MDGs) in terms of poverty reduction and access to education and healthcare. For example, in Nepal: where transport systems are good, an estimated 42% of people live below the poverty line but in areas where transport is inadequate, the proportion below the poverty line soars to 70%. In developing countries about 900 million rural people live in isolation without access to reliable all-season roads. Building transport links can help to integrate people into their wider communities, improve the quality of rural life and achieve the MDGs in poverty reduction, education and health. The development of modern transport systems has been identified as a key factor in supporting the current economic boom in China. Across the world communities are built around transport, near coasts for ports and alongside rivers, major roads and rail links. Their structure and functioning are dependent on transport systems. Without effective transport communities can suffer from poverty and lack of provision of human rights.

Transport, health and the environment

Transport has a major impact on health and safety around the world. Motor-vehicles are responsible for around 70% of air pollution in many of the world’s major cities. Worldwide over 500,000 are killed and 50 million seriously injured every year in road accidents. In most developing countries, more than 60% of victims are pedestrians and other vulnerable road users. Travel is safest in places that provide plentiful public transport and facilities for cyclists and pedestrians. Air pollution causes many premature deaths per year. Much of this pollution can be attributed to emissions from transport, especially in urban areas and principally in countries in transition such as China or India. Greenhouse gas emissions from private cars rose by almost 15% in the decade before 2005. Road freight now accounts for over 10% of UK carbon dioxide emissions. According to the

UK government, much of this could be transported by rail, causing far less pollution.

Food miles

Part of the cost of all the food you buy pays for transporting that food from where it is grown to your plate. Food miles are the measure of the distance food travels from grower to consumer. Agriculture and food now account for nearly 30% of goods transported by road. Food miles matter because they add substantially to carbon dioxide emissions that contribute to climate change. The local food movement encourages consumers to buy locally grown produce in season.

Transport and trade

Efficient transport is essential for development of international trade. The World Bank's 'Decade of action on transport' concluded that transport projects played a pivotal role in economic development and poverty alleviation. Indicators showed that populations living within 2 km of an all-season road are significantly better off. Physical isolation is a strong contributor to poverty. Populations lacking reliable access to social and economic services are poorer than those with reliable access. Problems of access are particularly severe in rural areas far from roads used regularly for motorised transport services. An estimated 900m rural dwellers in developing countries, most of them poor, lack reliable access to transport. In many developing countries increasing agricultural productivity is central to rural development and poverty reduction strategies. Farmers with difficult access to local markets earn less for their products. Improved rural transport makes it easier for farmers to obtain advice at reasonable cost and sell products at good prices. Increases in output are associated with agricultural areas with improved roads.

However, this raises serious concerns about long-term sustainability of present transport trends. Heavy dependence on road transport causes pollution, contributes to carbon emissions, leads to heavy goods vehicles on crowded streets and unpleasant living conditions for those on arterial roads.

Sustainable transport - transforming transportation

By 2030 six out of 10 people will live in cities. The world's fast-growing cities are struggling to provide services to residents and deal with overburdened roads, as well as the threat of climate change and rising road traffic injuries. One key challenge is the complexity of urban transport and the need to for holistic solutions tailored to local needs.

At the 10th 'Transforming Transportation' conference in January, hosted by the World Bank and EMBARQ, Centre for sustainable transport at the World Resources Institute (WRI), opportunities for action on sustainable transport in cities were discussed at a global level. Lack of access to adequate transport affects development negatively, but the same is true for overloaded, jammed up, inefficient transport systems. Their general conclusion was that a large part of the answer lies in greener, more efficient, cost-effective urban transportation that is designed to move people, not cars: transportation that benefits all people, including young people, women and future generations:

'If we don't make progress on climate change in cities - especially mega-cities - we will hand over a very different world to our children. We have to start looking at other ways to move people. Traffic does hurt your economy.'

Electric cars – part of the solution, or part of the problem....

In 2011, President Obama set the ambitious goal of 1m electric vehicles on US roads by 2015. The possibility of widespread adoption of electric vehicles raises many issues. Emphasis has been placed on the logistics of charging up electric vehicles and challenges this would place on electricity generating capacity. However, this masks more serious challenges on the implications this holds for climate change. There are no easy answers and electric cars may create as many problems as they solve.



Learning in a global context

Children are entitled to learn in a global context. They encounter world views from their families, cultures and communities. A school curriculum, set in a global context, deepens their understanding and engagement with the complexities of that world. Teaching about **Transport** requires teachers to be familiar with global issues that affect all our lives and to impart knowledge, skills and values that will equip children to live and be active in an interdependent, globalised world.

Real, relevant, current

The topic of **Transport** is integral to pupils' past and present. It requires us all to develop new ways of thinking, acting and living for a sustainable, equitable future. In Nepal gravity ropeways are used to transport vegetables down a mountainside, whilst in Bangladesh boats and bicycles play a big part and in Kenya 'Boda Bodas' operate as bicycle taxis. Children growing up today have much to learn from others around the world about resilient, creative solutions for transporting people and goods. It gives purpose to work across the curriculum with rich data and real-life scenarios around universal themes of consumerism and current issues. It opens up debate around alternative ways to tackle extreme poverty and inequality and offers differing perspectives on poverty and wealth.

Social justice, not charity

Fundraising campaigns that aim to evoke sympathy may instil feelings of guilt, with limited educational value. Encouraging children to research and question global issues helps them understand that there are more effective ways for governments and people to achieve a more sustainable and equitable world than charity.

Broaden perceptions, counter stereotypes

No country is uniformly rich or poor: inequality exists within, as well as between countries, including the UK. There is much to be learnt from others, whatever their situation. The diverse modes of transport around the world have much to teach us about not being overly dependent on the internal combustion engine.

Thinking critically about Transport

The world is increasingly motorised. Between 2000 and 2004, production of passenger cars in China jumped from 605,000 to 2.33 million. More people are driving cars and the number of motor vehicles (other than two wheelers) in the world is expected to double in the next 15 years to 1.3 billion. Many international transportation experts say the trend is global. Fastest growth is in Asia and Latin America. As motor vehicles proliferate in the developing world, as they have in the West, the challenge of achieving an acceptable trade-off between economic benefit and environmental impact is formidable. With this in mind, consider these questions:

Self-reflective questions:

- Focus - what do I think about this?*
Why do I think like that? To what extent am I open to changing my point of view?
- ~ What is your most used form of transport?
 - ~ How dependent is your current lifestyle on your transport arrangements?
 - ~ How would you conduct your day without modern transport services?
 - ~ Do you ever take part in lift shares?
 - ~ How often do you use public transport?

Group Dialogue questions:

- Focus - what do other people think about this?*
How can I find different perspectives?
Analyse assumptions, implications and contradictions? And how can I engage with complexity, conflict, uncertainty and difference?
- Discuss these questions with others:
- ~ What are the implications of everyone in the world owning a car?
 - ~ Should access to basic transport provision be a human right in the 21st century?
 - ~ Is it universal transport access achievable?
 - ~ How can sustainable technologies help humanity achieve this?
 - ~ What part does individual choice play?
 - ~ Does the West have the right to place limitations on the development of other places in the world?
 - ~ What are the implications for the environment and possible sustainable futures if no limitations being placed?

Curriculum planning

Literacy, Language and Communication

Pupils investigate non-fiction texts about transport and consider the wide range of transport types across the world

Pupils debate and discuss transport and its benefits and problems, and debate and write about their opinions, explaining their points of view;

Pupils research the benefits of a Walk to School initiative or other effective ways to reduce their 'transport footprint'.

Physical

Pupils know that their choices (and the choices of others) have consequences on their physical health as well as the environment, eg they learn that by walking to school they can reduce energy use and their carbon footprint and improve their health and fitness levels;

Pupils investigate how traffic emissions aggravate common childhood conditions such as asthma.

Personal, Social, Health, Citizenship and Economic Education

Pupils use local transport and make safe and sensible choices about travel;

Pupils learn about the wider world and the interdependence of communities within it. They develop their sense of social justice and moral responsibility and begin to understand that their own choices and behaviour can affect local, national or global issues;

Pupils learn how to make more confident and informed choices about their own health and environment; to take more responsibility, individually and as part of a greater whole.

Knowledge and Understanding of the World

Pupils learn about transport past and present in the UK, can identify and name many local options and consider the energy necessary to power them;

Pupils learn about access to transport, both locally and more widely in the UK. They look at methods of transport across the world and consider which methods are more sustainable or have least pollution;

Pupils learn about transport in the wider context of travel.

Creative

Pupils develop their own imaginative and creative ways of expressing their commitments to the environment locally, nationally and globally, which can be shared with the school community and more widely.

Mathematical, Scientific and Technical

Pupils use maths to explore the impact (both positive and negative) of transport, for example studying the air miles required in transporting Fairtrade goods from Kenya; Pupils collect, analyse and present data using a range of sources that compares transport use, eg investigating how pupils travel to school;

Pupils research, develop and design a simple vehicle and peer evaluate against set criteria, eg functionality, use of recycled materials, energy efficiency.

To download the complete **Learning about ...** series, our global learning **Guidance** Leaflets and complete the **How Global is my school audit** go to www.globallearninglondon.org.uk

For more information on Global Issues go to www.globalfootprints.org/issues
Classroom Activities go to www.globalfootprints.org/classroom
Support and documentation go to www.globalfootprints.org/support

