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| --- | --- | --- | --- | --- | --- |
| **Who ?** | **How many / how much ?** | **What ? (Facts, actions).** | **Why ? How ?** | **Where ?** | **When ?** |
|  | Worth of goods moved by global transportation network: 18 trillion  How far does this network move the world’s population every year? 81 trillion km  Impact on climate: 23% of greenhouse gas emissions | Modes of transportation (goods vs. people): people use human power ie they go on foot or on bicycles, cars or planes while goods are transported by trucks, ships and on rails  Primary fuel types: human power, renewable fuels and fossil fuels  Environmental impacts: fossil fuels release greenhouse gas  What is essential to supporting transportation systems? Energy, different types of infrastructures, fueling stations  What requirements must these systems meet? They must be safe clean comfortable reliable affordable | How does efficiency work? Efficiency refers to the quantity of energy that is actually used in comparison of the energy that is lost  How is fuel efficiency lost in cars? 75% of the energy produced by the fuel is lost mainly as heat  How to consider the climate impact of transportation? To consider the climate impact of transportation we can calculate the amount of emissions per person or goods being transported  How to reduce the environmental impact? To reduce the environmental impact we can choose to use another mode of transportation that creates less pollution or just to use less transportation |  |  |