

# Assessing and communicating development impacts

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## Why development benefits?

Priorities of  
developing countries

Driver of low-carbon  
development

## Why an impact assessment?

Alignment with  
development priorities

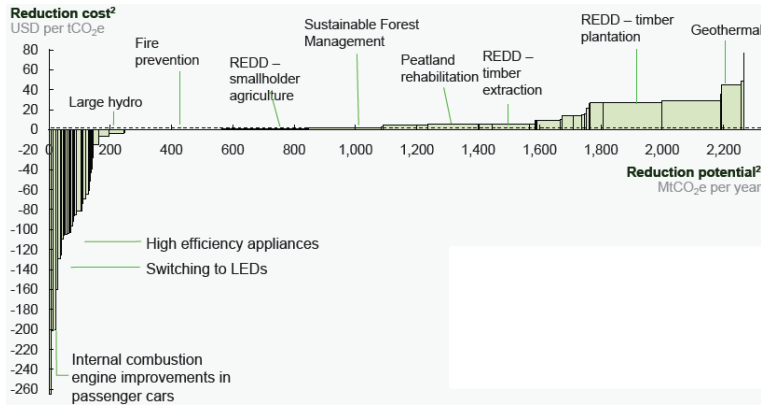
Communication with  
decision makers

*Germany's solar PV feed-in tariff  
China's energy efficiency targets*

## Mitigation

## Development

\$ and tCO<sub>2</sub>-eq



Social

Economic

Environmental

## The challenge

# Development impact assessment

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- Project from LEDS Global Partnership (LEDS GP)



ECN



Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH



International  
Institute for  
Sustainable  
Development

- Visualisation with aims of:
  - Communicating development impacts
  - Facilitating decision making
- Allows various analysis approaches
- Field-testing tool

# Kenya case study

	Climate			Development				
	Abatement potential (MtCO <sub>2</sub> )	Abatement cost 2030 (USD/tCO <sub>2</sub> )	Adaptation impact	Congestion and road quality	Road safety	Air quality	Energy security	Food security
Improved passenger stock	0.6	128	—	—	●	●	●	—
Improved HDV stock	0.8	~35	—	—	●	●	●	—
Bioethanol	0.55	~15	◡	—	—	●	●	◡
Blodiesel	1.2	66	◡	—	—	●	●	◡
BRT system for Nairobi	2.3	n/a	—	●	●	●	●	—
LRT system for Nairobi	0.6	n/a	—	●	●	●	●	—
Shift of freight to rail	0.8	n/a	—	●	●	●	●	—

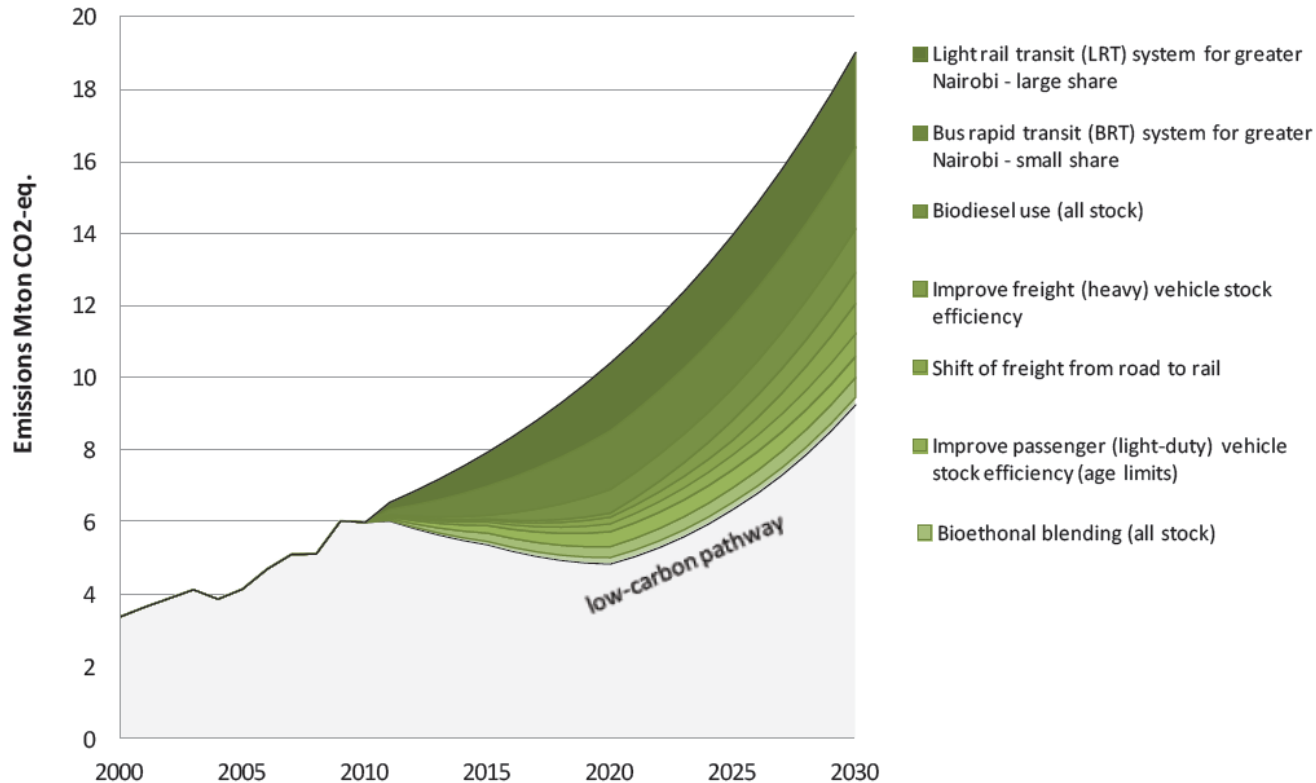
# Context

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- Developing a Climate Change Action Plan
- Low emissions, but many low-carbon development opportunities
- Action Plan covers 8 elements, including long-term low-carbon climate resilient development pathway,
- Participatory, multi-stakeholder process
- Six sector analysis



# Transport sector mitigation potential



# DIA tool in transport sector

	Climate			Development				
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Improved passenger stock	0.6	128	■	■	◐	◐	◐	■
Improved HDV stock	0.8	-35	■	■	◐	◐	◐	■
Bioethanol	0.55	-15	◑	■	■	◐	◐	◑
Biodiesel	1.2	66	◑	■	■	◐	●	◑
BRT system for Nairobi	2.3	n/a	■	●	●	●	●	■
LRT system for Nairobi	0.6	n/a	■	◐	◐	◐	◐	■
Shift of freight to rail	0.8	n/a	■	●	◐	◐	◐	■

- High positive
- ◐ Positive
- Neutral / minor impact
- ◑ Negative
- ◒ Uncertain



# Initial experiences

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## Value

Sustainable development impacts and alignment with government priorities are important for prioritisation

## Provides

catalyst for discussion

summary of the total analysis

basis for comparing options

## Questions

Need for quantification of key indicators?

May be a need to better reflect political priorities, but how?

Next step: Case study in the electricity sector comparing DIA and stricter multi-criteria analysis

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