TRANSfer

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

on behalf of
Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
of the Federal Republic of Germany

Compendium on Baselines for Mitigation Actions

Transport Volume

Daniel Bongardt, GIZ

Side Event on Baseline Compendium, 24 May 2016, Bonn

Overview

1. GIZ – Who we are and what we aim at
2. Plans for the Transport Volume
3. Existing guidance

GIZ Transport Projects: Worldwide

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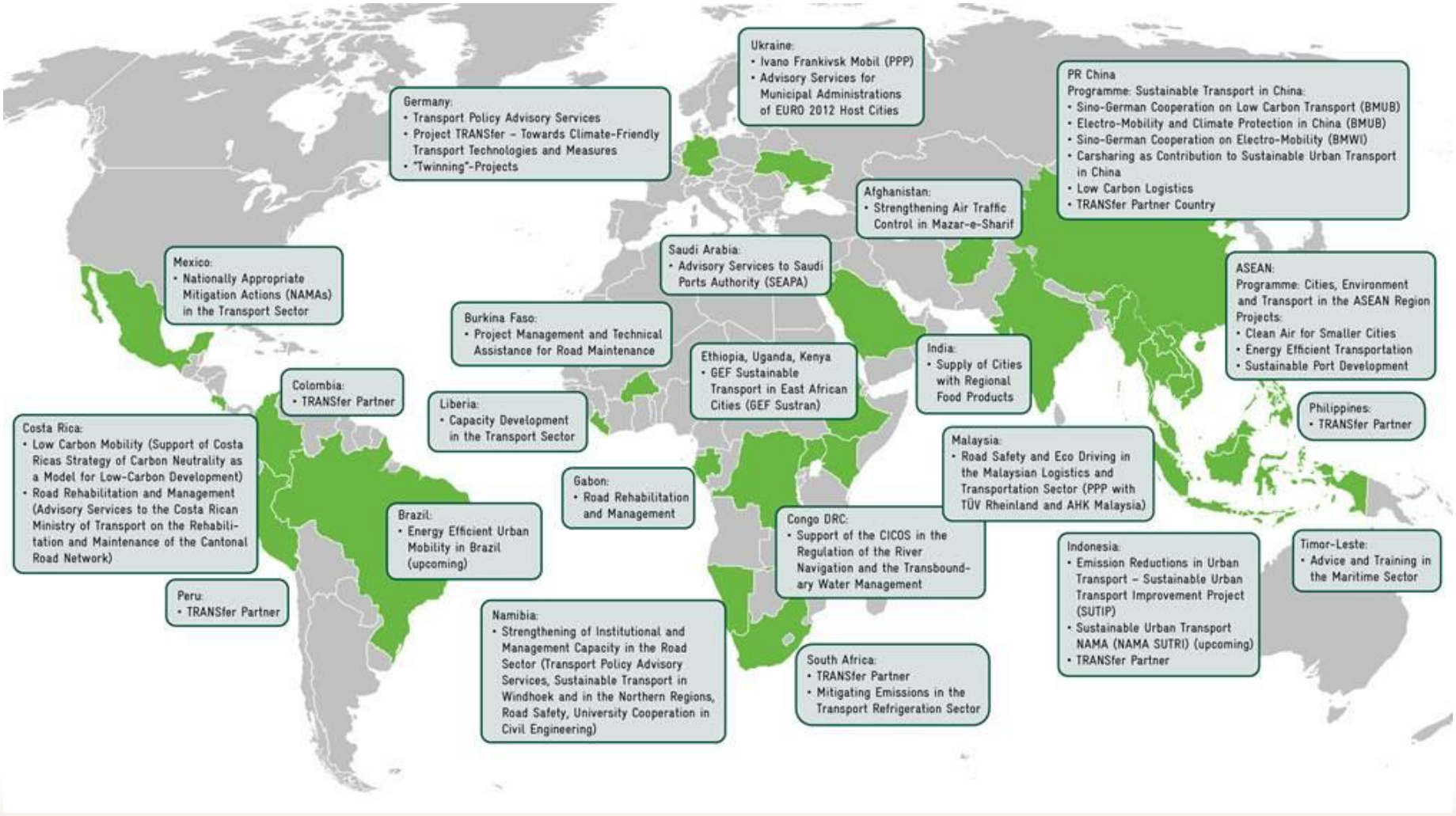
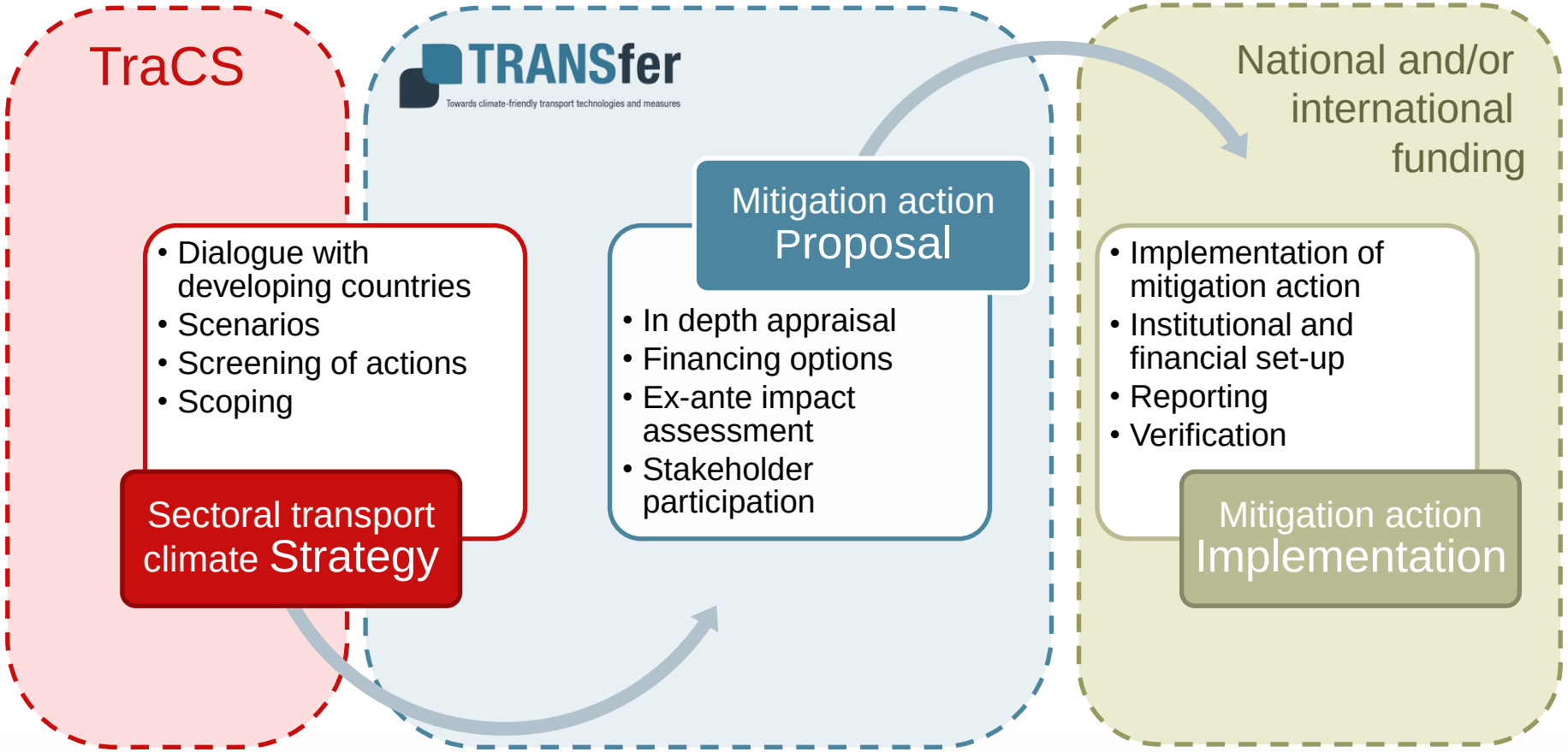


Expert Group on MRV

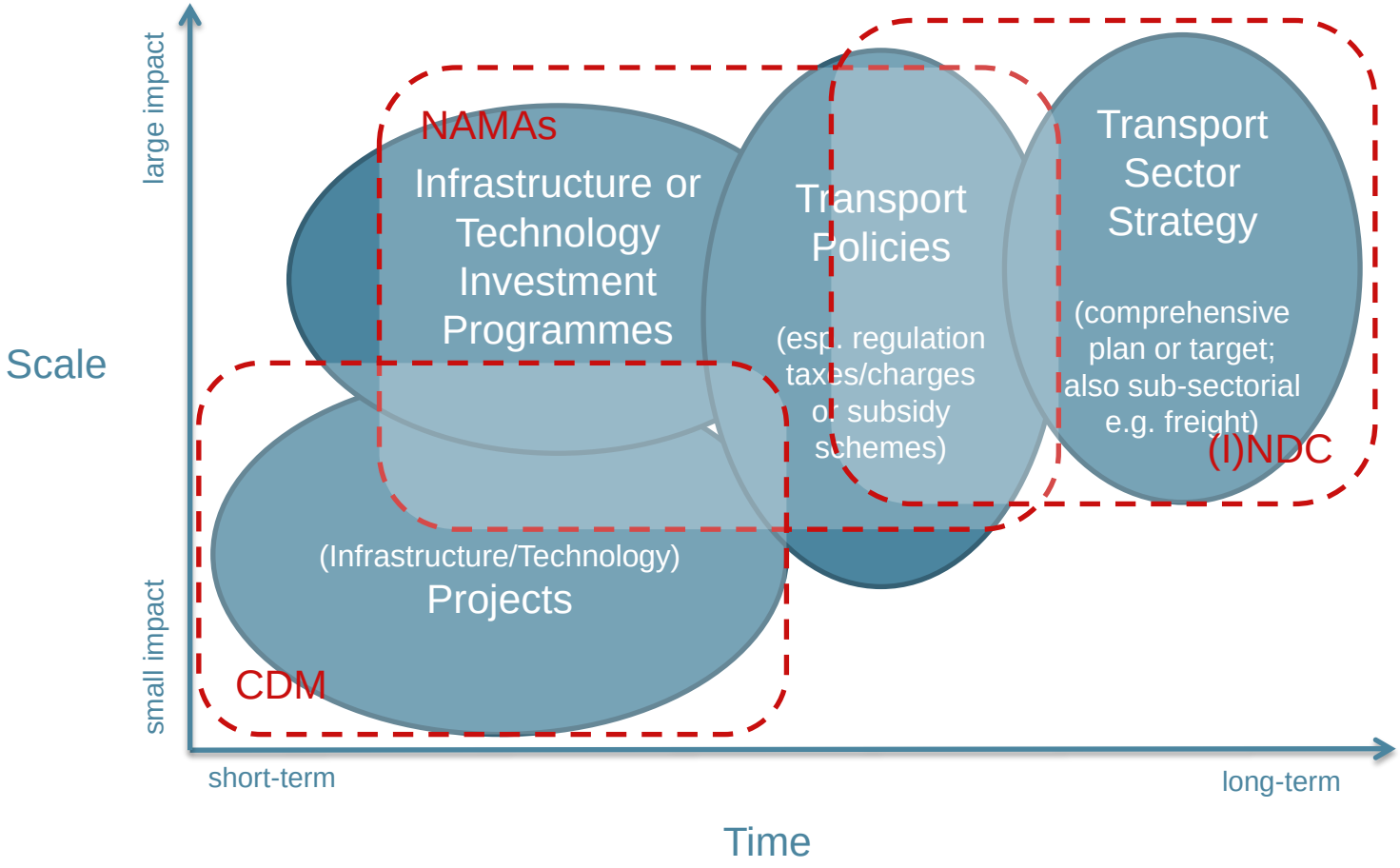
- Established in 2014 we cooperate with a broad range of external MRV experts from leading institutions in the field of GHG quantification and NAMA development

Transport and Climate at GIZ:

From strategy to implementation



The MRV Challenge



Overview

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Content of the transport volume

Overview of the sector

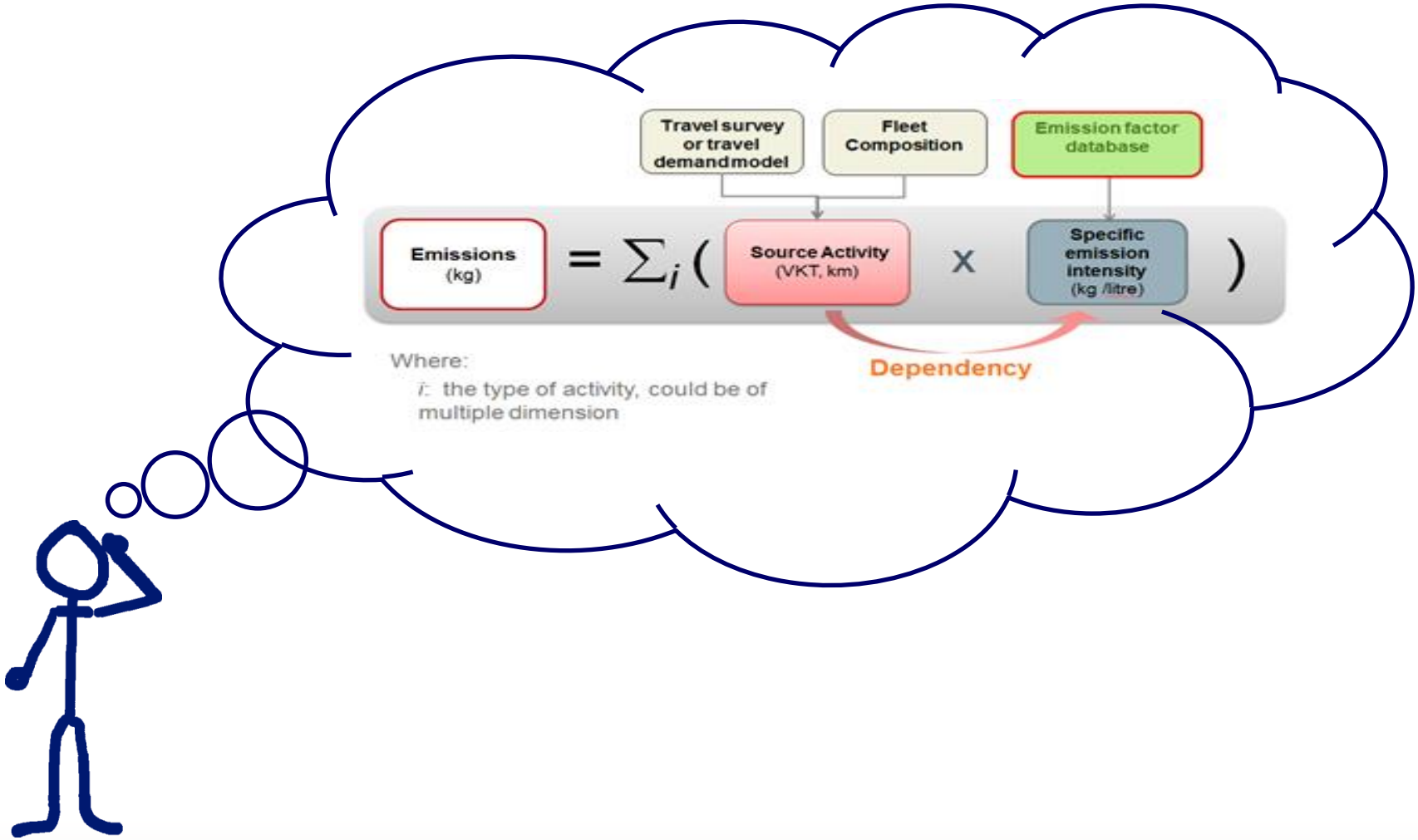
+ transport sector baselines

- Main drivers
- Emissions calculations
- Mitigation actions

Description of available methodologies for the calculation of baseline and mitigation scenario emissions at different levels

- Project/installation/facility level
- Intermediate level: aggregated/sub-sector
- Sector level

Annexes with further detail on data sources, QA/QC and institutional arrangements


Travel survey or travel demand model
Fleet Composition
Emission factor database
Emissions (kg)
= $\sum_i$ (
Source Activity (VKT, km)
X
Specific emission intensity (kg /litre)
)
Dependency
Where:
i: the type of activity, could be of multiple dimension

Drivers of emissions in the transport sector

- Growing **distances** or mileage travelled: usually number of trips and average trip distance is a key indicator (AVOID)
- Inefficient **mode** choice: usually baseline based on trip distance and pkm/tkm emission factors (SHIFT)
- Inefficient **vehicles** (engines, aerodynamics, rolling resistance): focus on changes in fuel consumption (IMPROVE) in litre/km
- High-carbon **fuels**: typical challenges related to upstream emissions of fuels (FUEL) in g CO_2/litre

Having combined effects from various ASIF dimensions makes baseline setting more complex

Quantifying Impacts of Transport NAMAs

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ex-ante

NAMA selection

NAMA proposal

ex-post

NAMA implementation

Assumptions / default values

Collected data

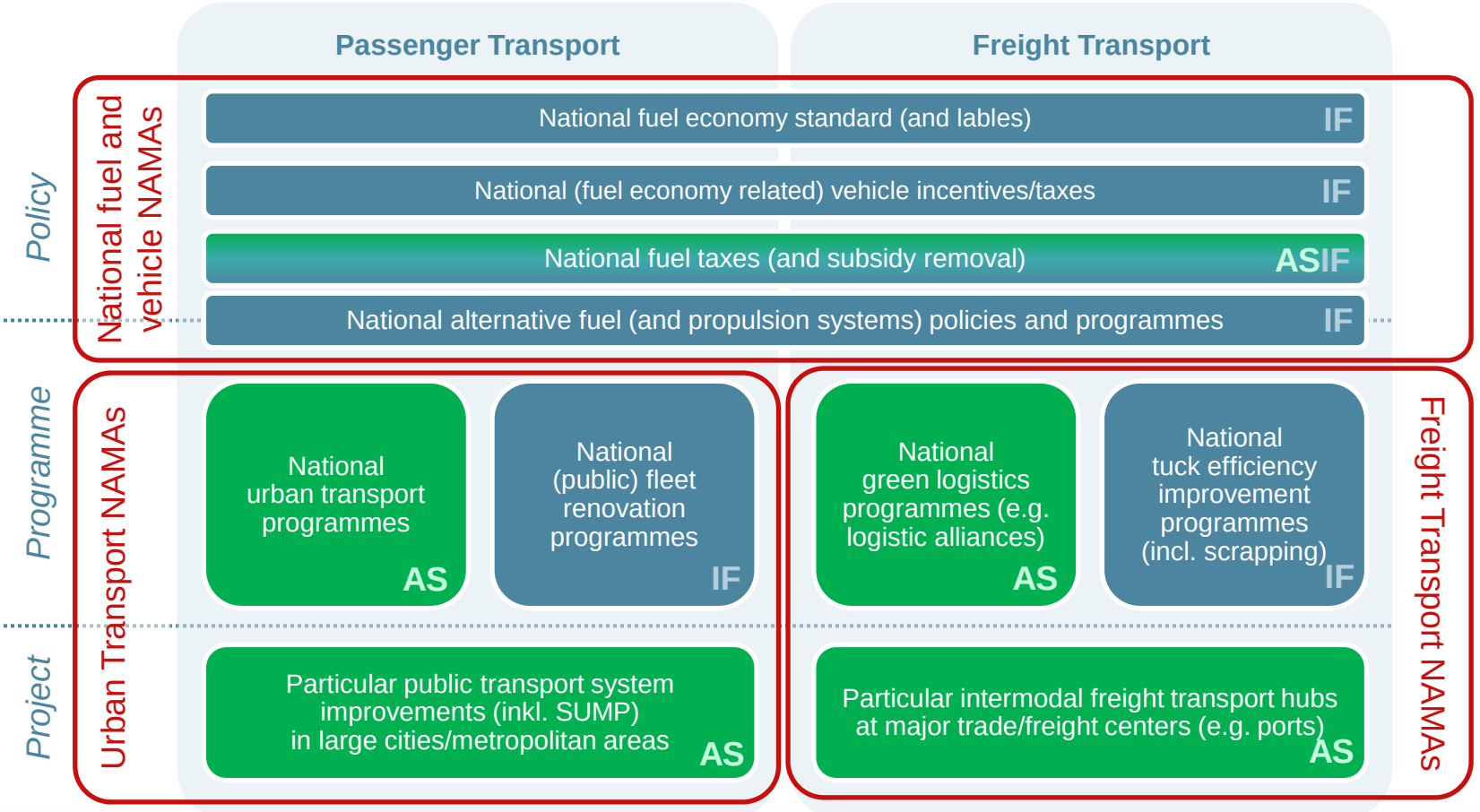
Transport sector scenario study

Ex-ante impact assessment (part of NAMA concept note)

Develop MRV approach → **MRV plan**

Monitoring report

Vast variety of potential transport NAMAs

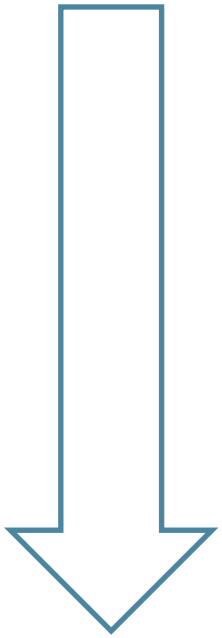


Mitigation actions included in transport volume (currently planned, further to be added)

- Major mass rapid transit investments (e.g. BRT, Metro) - *project*
- National investment programmes for urban transport - *programme*
- Fuel economy standards for new vehicles - *policy*
- Fleet renovation programmes (e.g. bus or truck fleets) - *programme*
- Inter-urban rail infrastructure investments - *project*
- Freight transport infrastructure (e.g. intermodal hubs) - *project*
- Fuel switch programmes – *programme*
- *…*

The compendium will also discuss the applicability of methodologies to other measures where these are methodologically similar

Next steps and timeline



Development of **first order draft** by November 2016

- General sector description
- Main part of measures described

Development of **second order draft** by December 2016

- For public review

Development of **final draft** by February 2017

Publication by May 2017

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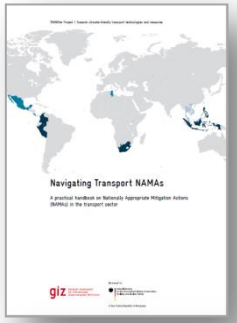
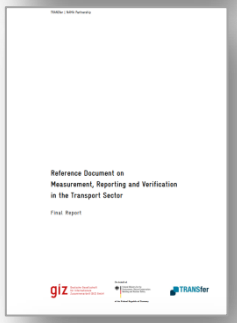
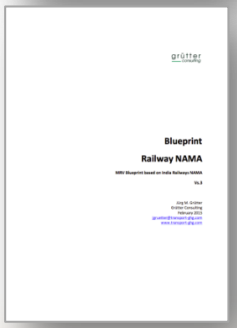
Guidance on NAMA and MRV Development







Navigating Transport NAMAs: Handbook (Chapter 2: MRV)

- The TRANSfer Transport NAMA Handbook offers practical advice on NAMA selection, MRV, finance and registration. It builds upon a high number of examples

Reference Document on MRV in Transport

- Guidance on how to develop comprehensive and consistent national systems for MRV of transport related emissions

MRV Blueprints / NAMA MRV Methodologies

- detailed step-by-step documentation of MRV methodologies for specific transport NAMAs. Each blueprint is exemplified by a case study.

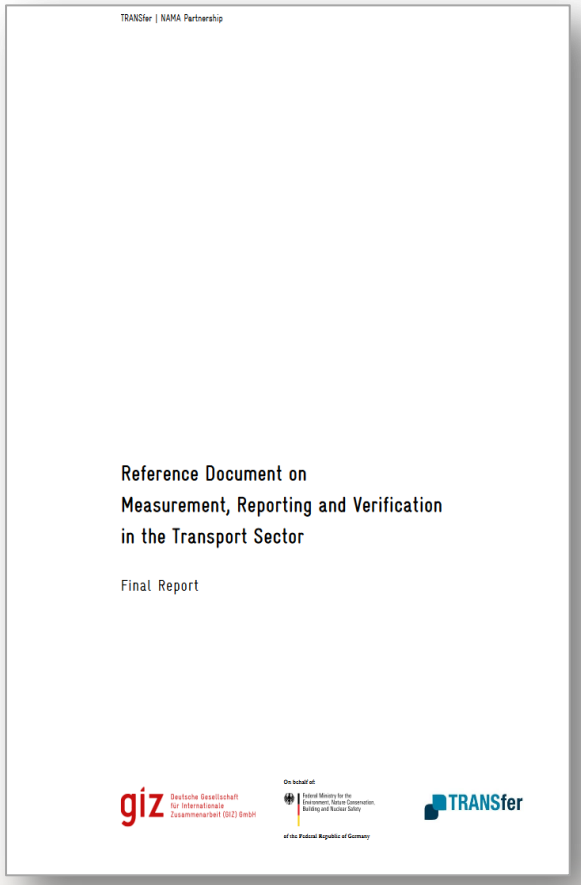
All available at: http://transport-namas.org/

Reference Document on Measurement, Reporting and Verification in the Transport Sector

- Published in February 2016
- Authors:

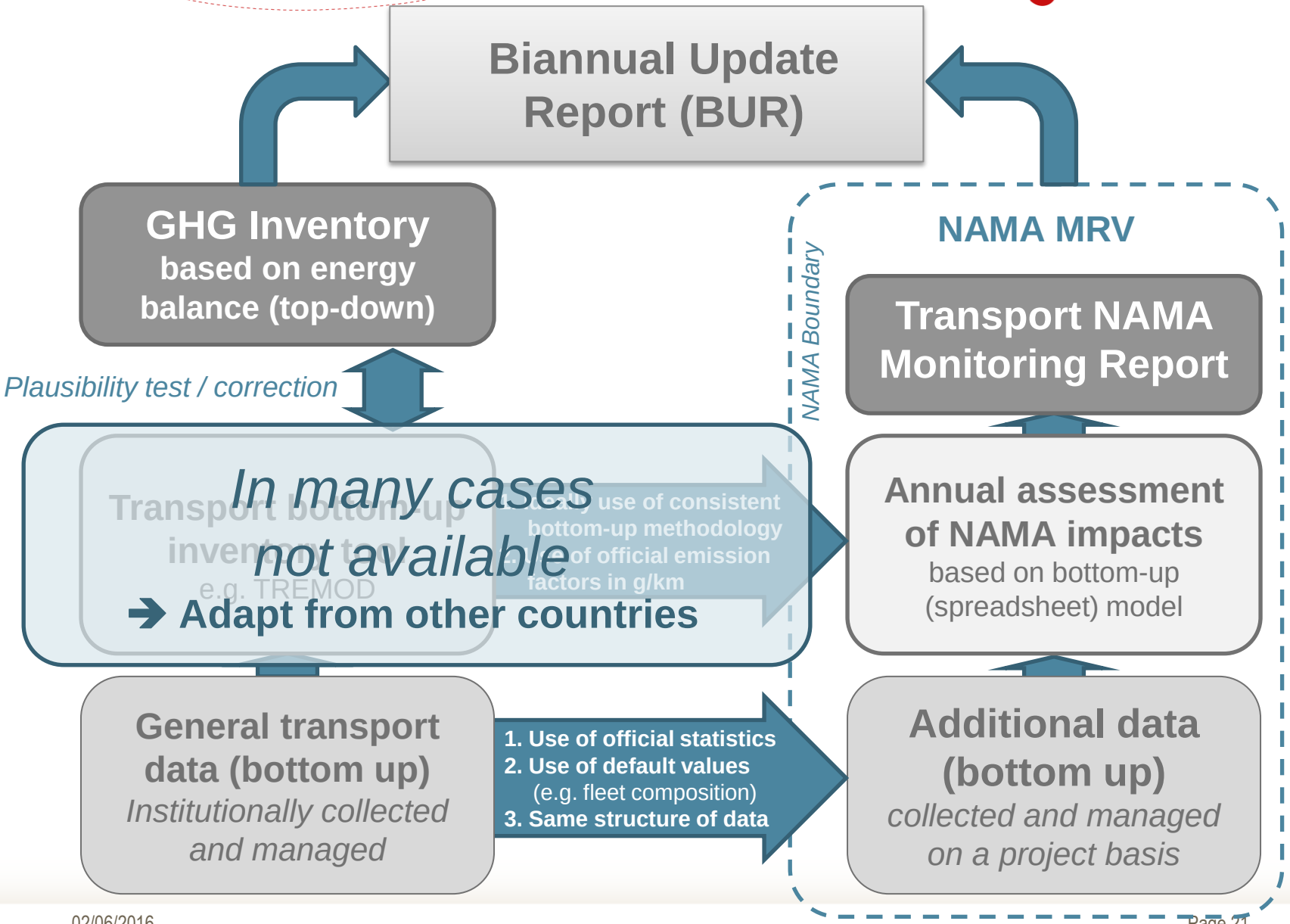
  Jürg Füssler (INFRAS, lead author), Sudhir Sharma (UDP, lead author), Stefan Bakker, Daniel Bongardt (GIZ), John German (ICCT), Sudhir Gotha, Jürg Grütter (Grütter Consult), Martin Herren (INFRAS), Chuck Kooshian (CCAP), Hilda Martinez (WRI Mexico), Victoria Novikova (UNFCCC), Martin Schmied (Umweltbundesamt), Marion Vieweg (Current Future)

- Download:
  http://www.transport-namas.org/mrv



Main Contents

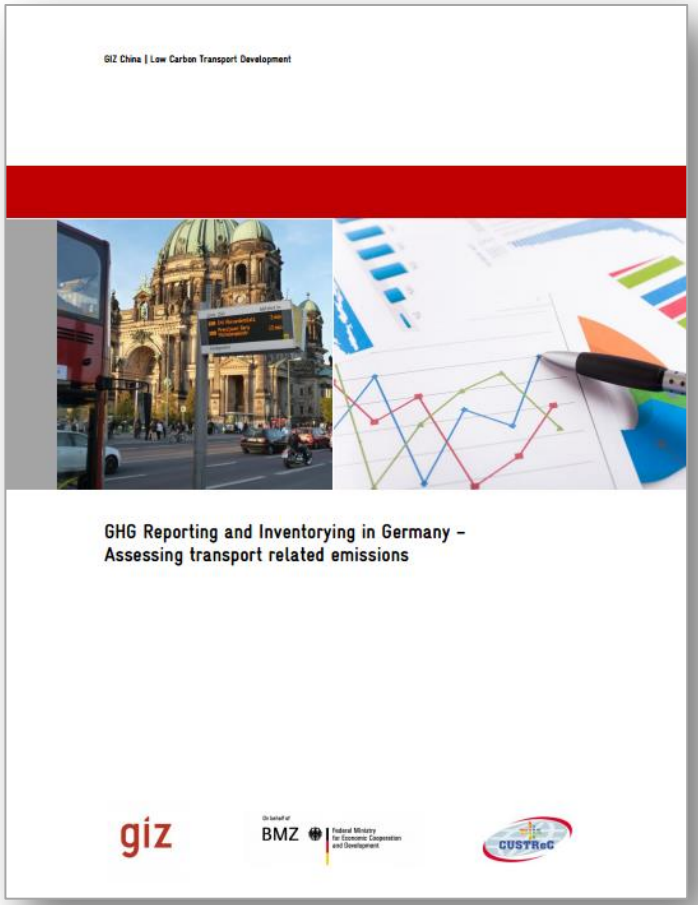
- **Transport sector data** and how to quantify emissions (section 2)
- MRV of transport **mitigation actions** (section 3)
- 4 detailed **case studies** for MRV methodologies (section 4)
- **Guidance** on steps to build MRV systems for transport (section 5)
- Annexes:
  - List of **indicators**
  - **Template** for NAMA-MRV Methodology Reports


Biannual Update Report (BUR)
GHG Inventory
based on energy balance (top-down)
Plausibility test / correction
NAMA MRV
NAMA Boundary
Transport NAMA Monitoring Report
In many cases not available
➔ Adapt from other countries
Transport bottom-up inventory tool
e.g. TREMOD
Annual assessment of NAMA impacts
based on bottom-up (spreadsheet) model
General transport data (bottom up)
Institutionally collected and managed
1. Use of official statistics
2. Use of default values
(e.g. fleet composition)
3. Same structure of data
Additional data (bottom up)
collected and managed on a project basis

How to set up national GHG Inventories for transport?

Report: "GHG Reporting and Inventorying in Germany – Assessing transport related emissions"

- Institutional set-up for GHG inventory planning, preparation and management in Germany
- General description of the data and methods used for the calculation of transport related emissions
- Tier 3 approach for GHG reporting considering traffic data and bottom up calculation (incl. CH4, N2O and cross-boundary traffic).
- http://www.sustainabletransport.org/

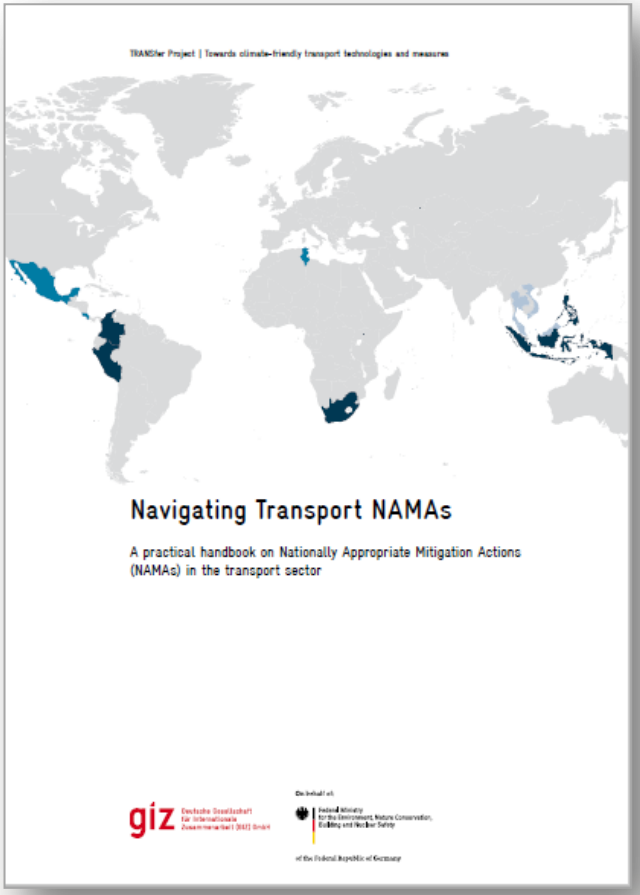


Navigating Transport NAMAs
Practical Handbook

Contents

- Background
- Selection of Mitigation Action
- MRV
- Finance
- Registration

For download:
http://www.transport-namas.org



Thank You!

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