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Review and monitoring of emerging issues and sustainable development

goals:

Technical assistance to countries with economies in transition:

Support for Landlocked Developing Countries

Consolidated set of Sustainable Inland Transport Connectivity Indicators

Prepared by the secretariat

Introduction

For ease of reference, the current document contains the full, consolidated set of indicators including on rail, road, inland waterway and inter-modal transport and logistics sectors as well as on pandemic preparedness, as contained in ECE/TRANS/WP.5/2021/8 and ECE/TRANS/WP.5/2021/8 Add.1 and in informal document no. 7. These indicators have been developed in the framework of an ongoing United Nations Development Account project co-implemented by ECE, ESCWA and ECLAC and have been implemented and tested in the context of the following five pilot countries: Georgia, Kazakhstan, Serbia, Jordan and Paraguay.

Annex I

Rail transport connectivity indicators

I. Economic Sustainability (EC)

A. 2-EC-1: Efficiency

2-EC-1.1: Staff resources at rail BCPs and inland clearance stations

Definition:

Adequacy of the number of personnel at rail BCPs and inland clearance stations to cope with the freight volumes involved.

Scoring:

- All staff categories available 24/7 at most BCPs and inland clearance stations: 10 points
- Some staff categories available 24/7 at most BCPs and inland clearance stations: 8 points
- All staff categories available during office hours at most BCPs and inland clearance stations: 6 points
- Some staff categories available during office hours at most BCPs and inland clearance stations: 4 points
- Staff available only with appointment: 2 points
- No staff at BCPs and inland clearance stations: 0 point

2-EC-1.2: BCP infrastructure (Joint control facilities)

Definition:

Availability and opening hours of joint controls facilities at rail BCPs open for international goods traffic. It concerns facilities for domestic controls as well as joint controls with the adjoining country. In terms of opening hours, Article 6 of the Annex 8 to the Harmonization Convention sets out 24 hours a day as a minimum requirement.

Scoring:

- Facilities for joint bilateral controls with the adjoining country (one-stop technology) are available 24 hours a day: 10 points
- Facilities for joint domestic controls (one-stop technology/ 2 stop border post) are available 24 hours a day: 8 points
- Facilities for either joint bilateral controls or domestic controls are available with limited opening hours (e.g. no night, weekend and holidays operation): 6 points

2-EC-1.1: Staff resources at rail BCPs and inland clearance stations

- No facilities for any type of joint controls: 0 point

2-EC-1.3: Harmonization of international standards for minimum useful siding length

Definition:

Harmonization of international standards for minimum useful siding length on main international lines under AGC for goods trains. In AGC, this has been set at 750 m.

Scoring:

- Applicable on more than 50% of the international railway lines along the national segment: 10 points
- Applicable on less than 50% of the international railway lines along the national segment: 5 points
- Not applicable in the country: 0 points

2-EC-1.4: Inland clearance and control procedures

Definition:

The extent to which control procedures are undertaken at inland clearance stations away from the border to promote efficient movements at BCPs. The control procedures are involving medico-sanitary inspection, controls of compliance with technical standards, quality controls, train inspections and other as applicable.

The adoption of customs risk management system will get additional points as risk management procedures expedite the clearance of goods.

Scoring:

- All control procedures take place at inland clearance stations: 8 points
- >50% control procedures take place at inland clearance stations: 6 points
- <50% control procedures take place at inland clearance stations: 4 points
- All control procedures take place at BCPs: 0 point
- Application of customs risk management system: + 2 points

2-EC-1.5a: Coordination and delegation of controls among national border agencies

Definition:

The extent to which national border agencies (such as Health and Safety Authorities, Treasury, and Food and Drug Administration) delegate their control activities to other border agencies such as Customs authorities, in accordance with a cooperation agreement or MoU. By implementing a delegation mechanism, duplication and overlapping activities, and conflicting instructions and requirements can be reduced.

2-EC-1.1: Staff resources at rail BCPs and inland clearance stations

Scoring:

- A coordination and delegation mechanism is in place where all border agencies can at any time act/perform controls on each other's behalf: 10 points
- A coordination and delegation mechanism is in place, however only several border agencies can in specific cases (e.g. during off-peak hours and at night) act/perform controls on each other's behalf: 6 points
- No coordination and delegation mechanism in place, as such all government agencies act independently: 0 point

2-EC-1.5b: Coordination and delegation of controls between agencies of neighboring countries

Definition:

The extent to which border agencies from both sides of the BCP coordinate with each other or delegate the control procedures to each other at a designated single common border post/station, in accordance with a bilateral agreement or MoU). Implementing such a coordination and delegation mechanism will increase the border crossing efficiency.

Scoring:

- A coordination and delegation mechanism is in place, where border agencies from both sides of the BCP at any time act/perform controls together or on each other's behalf: 8 points
- A coordination and delegation mechanism is in place, where border agencies from both sides of the BCP in specific cases (e.g. during off-peak hours and at night) act/perform controls jointly or on each other's behalf: 6 points
- Common open hours as determined by traffic volume: +2 points
- No coordination and delegation mechanism in place, as such border agencies from both sides of the BCP act independently: 0 point

2-EC-1.6: Average railway border clearance time

Definition:

The average border processing time (in minutes) needed by a train, calculated by summing the stop time of all trains divided by the number of trains crossing the border per day. The survey should capture the stop time by time of day (peak and off-peak) and day of week.

Scoring:

Not applicable. This is a verification indicator.

2-EC-1.7: Proportion of bulk to non-bulk cargo

Definition:

The proportion of bulk to non-bulk export rail cargo from the country. This indicator shows how diverse the rail traffic is, in order to promote non-bulk goods on railways.

2-EC-1.1: Staff resources at rail BCPs and inland clearance stations

Scoring:

- 50:50 : 10 points
- 60:40 : 7 points
- 70:30 : 4 points
- 80:20 : 0 point

2-EC-1.8: Empty running percentage

Definition:

The empty running percentage of railway traffic returning to the country. This indicator measures cooperation and coordination with neighboring countries to reduce empty running.

Scoring:

Not applicable. This is a verification indicator.

2-EC-2: Time required at borders

2-EC-2.1a: Average border clearance time (with physical inspection)

Definition:

The average border clearance time (in minutes) needed by a train, when physical inspections are involved. It is calculated by summing the clearance time of all inspected trains divided by the number of inspected trains. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.

2-EC-2.1b: Average border clearance time (without physical inspection)

Definition:

The average border clearance time (in minutes) needed by a train, when no physical inspections are involved. It is calculated by summing the clearance time of all surveyed trains divided by the number of surveyed trains. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

Scoring:

2-EC-2.1a: Average border clearance time (with physical inspection)

Not applicable. This is a verification indicator.

2-EC-2.2: Average queuing time

Definition:

The average queuing time (in minutes) for trains at border stations. Time taken into consideration starts when a train arrives at the rail yard and ends when the clearance process starts. The survey should capture queuing time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.
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B. 2-EC-3: Cost

2-EC-3.1: Customs clearance cost for containerized cargo

Definition:

The average customs operation cost per TEU associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are, among others, loading/unloading of shipment at BCPs and inspection charges.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

2-EC-3.2: Customs clearance cost for dry bulk cargo

Definition:

The average customs operation cost for dry bulk cargo per ton associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are, among others, loading/unloading of shipment at BCPs and inspection charges.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points

2-EC-3.1: Customs clearance cost for containerized cargo

- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

2-EC-3.3: Customs clearance cost for liquid bulk cargo

Definition:

The average customs operation cost for liquid bulk cargo per ton associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are, among others, loading/unloading of shipment at BCPs and inspection charges.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
 - Cost is less than 50% lower than the regional average: 7 points
 - Cost is less than 50% higher than the regional average: 4 points
 - Cost is more than 50% higher than the regional average: 0 point
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C. 2-EC-4: Infrastructure

2-EC-4.1: Length of main international railway lines

Definition:

Ratio of the total length of main international railway lines (km) to the total rail network in the country. In Europe, these concern the class-A lines of E-railway network classification listed in Annex I of the European Agreement on Main International Railway Lines (AGC).

Scoring:

- Ratio $\geq 25\%$: 10 point
- $20\% \leq \text{ratio} < 25\%$: 8 points
- $15\% \leq \text{ratio} < 20\%$: 6 points
- $10\% \leq \text{ratio} < 15\%$: 4 points
- $5\% \leq \text{ratio} < 10\%$: 2 points
- ratio $< 5\%$: 0 point

2-EC-4.2: Length of supplementary international railway lines

2-EC-4.1: Length of main international railway lines

Definition:

Ratio of the total length of supplementary international railway lines (km) to the total rail network in the country. In Europe, these lines concern the class-B lines of E-railway network classification listed in Annex I of the AGC.

Scoring:

- Ratio $\geq 25\%$: 10 point
- $20\% \leq \text{ratio} < 25\%$: 8 points
- $15\% \leq \text{ratio} < 20\%$: 6 points
- $10\% \leq \text{ratio} < 15\%$: 4 points
- $5\% \leq \text{ratio} < 10\%$: 2 points
- ratio $< 5\%$: 0 point

*2-EC-4.3: Number of international railway corridors**Definition:*

The number of international railway corridors passing through the country.

Scoring:

- Not applicable. This is a verification indicator.

*2-EC-4.4: Commercial speed of international railway lines**Definition:*

The average commercial speed of the majority of the international railway lines along the national segment, which is equal to the distance divided by the journey time.

Scoring:

- $\geq 160\text{km/h}$: 10 points
 - 120 km/h: 8 points
 - 100km/h: 6 points
 - 80 km/h: 4 points
 - 60 km/h: 2 points
 - 40 km/h: 0 point
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D. 2-EC-5: Operations

1. 2-EC-5.1: Administrative Requirements

2-EC-5.1a: Admission requirements for locomotives

Definition:

Admission requirements for locomotives and powered trains, in terms of the technical condition, based on international/regional/subregional regime.

Scoring:

- Application of the international convention regime: 10 points
- Application of regional regime equivalent to the applicable international conventions: 8 points
- Application of an equivalent subregional regime: 6 points
- Application of a simplified bilateral regime: 4 points
- No admission: 0 point

2-EC-5.1b: Admission requirements for train wagons

Definition:

Admission requirements for train wagons and passenger carriages, in terms of the technical condition, based on international/regional/subregional regime.

Scoring:

- Application of the international convention regime: 10 points
- Application of regional regime equivalent to the applicable international conventions: 8 points
- Application of an equivalent subregional regime: 6 points
- Application of a simplified bilateral regime: 4 points
- No admission: 0 point

2-EC-5.1c: Contract of carriage requirements

Definition:

Level of harmonization of the contract of carriage requirements as per internationally and/or regionally agreed arrangements.

Scoring:

- Regionally or subregionally harmonized: 8 points

2-EC-5.1a: Admission requirements for locomotives

- Bilaterally harmonized with common full contract conditions, arrangements for legal issues and consignment note: 6 points
- No common arrangements: 0 point

*2-EC-5.1d: Recognition of license for train drivers**Definition:*

Degree of recognition of license for train drivers.

Scoring:

- Use of regionally recognized license: 8 points
 - Bilateral arrangement with additional documents: 6 points
 - No arrangement: 0 point
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2. 2-EC-5.2: Interoperability

2-EC-5.2a: Track gauge

Definition:

The extent to which the track gauge of the international rail network in the country adheres to the regional/global technical standards.

Scoring:

- Track gauge adheres to global technical standards: 10 points
- Track gauge adheres to regional technical standards: 8 points
- Track gauge adheres to sub-regional technical standards: 6 points
- Track gauge adheres to bilaterally agreed technical standards: 4 points
- Track gauge adheres to national technical standards: 0 points

*2-EC-5.2b: Loading gauge**Definition:*

The extent to which the loading gauge of the international rail network in the country adheres to the regional/global technical standards.

2-EC-5.2a: Track gauge

Scoring:

- Loading gauge adheres to global technical standards: 10 points
- Loading gauge adheres to regional technical standards: 8 points
- Loading gauge adheres to sub-regional technical standards: 6 points
- Loading gauge adheres to bilaterally agreed technical standards: 4 points
- Loading gauge adheres to national technical standards: 0 points

2-EC-5.2c: Railway signaling system

Definition:

The most widely used railway signaling system on the international railway network in the country.

Scoring:

- Moving-blocks signaling: 10 points
- Fixed-blocks signaling: 7 points
- Manually-controlled block: 4 points
- No signaling system in place: 0 point

2-EC-5.2d: Number of countries whose rolling stocks are allowed to enter the country

Definition:

The number of foreign countries whose rolling stocks are allowed to enter the country.

Scoring:

- ≥ 5 countries: 10 points
- 4 countries: 8 points
- 3 countries: 6 points
- 2 countries: 4 points
- 1 country: 2 points
- None: 0 point

2-EC-5.2a: Track gauge

2-EC-5.2e: Membership of international rail conventions

Definition:

Degree of harmonization of legal interoperability by being member of international railway conventions to comprehensively address the legal issues of international rail transport across the entire continent.

Scoring:

- Member of either OSJD or OTIF: 10 points
- Not member: 0 point

2-EC-5.2f: Open access

Definition:

Degree of access to third party operators to operate on the country's railway network. Third party operators are railway operators other than the main national operator.

Scoring:

- Full access with independent rail regulator oversight: 10 points
 - Full access without oversight: 7 points
 - Access granted to only adjoining state railways: 4 points
 - Access granted only to the national railway (monopoly): 0 point
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E. 2-EC-6: Intermodality/Combined Transport

2-EC-6.1: Modal share of freight rail transport

Definition:

Ratio of the freight ton kilometers performed with rail transport to the total ton kilometers involved in international journeys per year.

Scoring:

- ratio $\geq 90\%$: 10 points
- $75\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 75\%$: 6 points
- $25\% \leq \text{ratio} < 50\%$: 4 points

2-EC-6.1: Modal share of freight rail transport

- $10\% \leq \text{ratio} < 25\%$: 2 points
- $\text{ratio} < 10\%$: 0 point

2-EC-6.2: Share of containerized cargo

Definition:

The share of containerization is defined as the gross weight of containerized cargo divided by the total gross weight of non-bulk cargo by rail. Oil, coal, grain, bulk, cement, etc, are excluded.

Scoring:

- $\text{share} \geq 65\%$: 10 points
- $50\% \leq \text{share} < 65\%$: 8 points
- $25\% \leq \text{share} < 50\%$: 6 points
- $10\% \leq \text{share} < 25\%$: 4 points
- $\text{share} < 10\%$: 0 point

2-EC-6.3: Handling time of consignments in terminals

Definition:

The minimum handling time of consignments in terminals, defined as the period from the latest time of acceptance of goods to the departure of trains, and from the arrival of trains to the availability of wagons ready for the unloading of loading units.

Scoring:

- $\text{time} \leq 1 \text{ hour}$: 10 points
- $2 \text{ hours} \leq \text{time} < 1 \text{ hour}$: 5 points
- $\text{time} > 2 \text{ hours}$: 0 point

2-EC-6.4: Waiting time for road vehicles

Definition:

The minimum waiting time for road vehicles, defined as the waiting time for road vehicles to deliver or collect loading units at rail terminals.

Scoring:

- $\text{time} \leq 20 \text{ minutes}$: 10 points
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2-EC-6.1: Modal share of freight rail transport

- 60 minutes \leq time < 20 minutes: 5 points
 - time > 60 minutes: 0 point
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F. 2-EC-7: ICT and Intelligent Transport System Solutions

2-EC-7.1: Implementation of interconnected e-solutions

Definition:

Degree of implementation of internationally, regionally, sub-regionally or bilaterally harmonized interconnected e-solutions for transport, i.e. electronic CIM/SMGS and e-Single Window system for customs and border procedures.

Scoring:

- electronic CIM/SMGS and inter-agency e-Single Window are implemented: 10 points
- Only e-Single Window is implemented: 8 points
- electronic CIM/SMGS is implemented, no e-Single Window: 6 points
- Use of electronic processing system: 4 points
- Manual processing: 0 point

2-EC-7.2: Application of advance electronic rail cargo information

Definition:

Degree of application of advance electronic cargo information for pre-clearance purposes.

Scoring:

- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for all cargo: 10 points
- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for the majority of cargo: 7 points
- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for selected cargo only, the majority is processed manually upon arrival: 4 points
- No electronic pre-clearance cargo system in place, processing and clearance take place upon arrival of the cargo in the country of importation: 0 point

2-EC-7.3: Availability of detection equipment and inspection technologies

2-EC-7.1: Implementation of interconnected e-solutions

Definition:

Availability of detection equipment, scanning and non-intrusive inspection technologies including scanners for cargo, technology for detection of chemical, biological, radiological and nuclear materials, and e-Seal, at BCPs.

Scoring:

- Available at all rail BCPs and inland clearance stations: 10 points
- Available at at least 50% of rail BCPs and inland clearance stations: 7 points
- Available at less than 50% of rail BCPs and inland clearance stations: 4 points
- Not available in any rail BCPs nor inland clearance stations: 0 point

2-EC-7.4: Coordinated timetabling process

Definition:

The existence of a coordinated timetabling process.

Scoring:

- Globally coordinated: 10 points
 - Regionally coordinated: 8 points
 - Subregionally coordinated: 6 points
 - Bilaterally coordinated: 4 points
 - No coordination in place: 0 point
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II. Social Sustainability (SO)

A. 2-SO-1: Rail Traffic Infrastructure

2-SO-1.1: Percentage of international railway lines with at least two tracks

Definition:

Ratio of the international railway lines along the national segment with at least two tracks, to the total length of the international railway lines along the national segment.

Scoring:

2-SO-1.1: Percentage of international railway lines with at least two tracks

- ratio $\geq 25\%$: 10 points
- $20\% \leq \text{ratio} < 25\%$: 8 points
- $15\% \leq \text{ratio} < 20\%$: 6 points
- $10\% \leq \text{ratio} < 15\%$: 4 points
- $5\% \leq \text{ratio} < 10\%$: 2 points
- ratio $< 5\%$: 0 point

*2-SO-1.2a: Secured sidings at rail BCPs (cargo security)**Definition:*

The extent to which the rail BCPs in the country are equipped with secured sidings, i.e. fully fenced and illuminated, in order to reduce cargo thefts.

Scoring:

- All rail BCPs are equipped with secured sidings: 10 points
- More than 50% of rail BCPs are equipped with secured sidings: 7 points
- Less than 50% of rail BCPs are equipped with secured sidings: 4 points
- No BCP is equipped with secured sidings: 0 point

*2-SO-1.2b: Number of incidents of rail cargo theft**Definition:*

The number of cases of reported rail cargo theft per 100,000 wagon days involved in trade (import and export) per year.

Scoring:

Not applicable. This is a verification indicator.

*2-SO-1.2c: Level crossings on international lines**Definition:*

The most widely used type of level crossings on the international railway lines in the country.

Scoring:

- No road level crossings: 10 points

2-SO-1.1: Percentage of international railway lines with at least two tracks

- Automated level crossing system: 7 points
- Manned level crossings: 4 points
- Unmanned level crossings: 0 point

2-SO-1.2d: Number of accidents at level crossings

Definition:

The number of accidents at level crossings per 100,000 train-kms driven per year.

Scoring:

Not applicable. This is a verification indicator.

2-SO-1.2e: Secured sidings of operating railway lines

Definition:

The extent to which secured sidings, i.e. fully fenced and illuminated, are installed on both sides of the operating international railway lines in the country in order to increase traffic safety.

Scoring:

- All operating railway lines are equipped with secured sidings: 10 points
- More than 50% of operating railway lines are equipped with secured sidings: 7 points
- Less than 50% of operating railway lines are equipped with secured sidings: 4 points
- No railway line is equipped with secured sidings: 0 point

2-SO-1.3: Number of accidents due to system failure

Definition:

The number of accidents per 100,000 train-kms driven per year, where primary cause is system failure, such as broken rails, track buckles, signals passed at danger, wrong-side signaling failures, broken wheels and broken axles.

Scoring:

Not applicable. This is a verification indicator.

B. 2-SO-2: Dangerous Goods Transport – Administrative Requirements

1. 2-SO-2.1: General provisions for the transport of dangerous goods by rail

2-SO-2.1a: Placarding and marking of wagons

Definition:

Degree of harmonization of internationally/regionally agreed provisions on placarding and marking in the national laws and legislations. It concerns placarding and marking of all types of wagons for the transport of dangerous goods.

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

2-SO-2.1b: Percentage of transport of dangerous goods

Definition:

Percentage of traffic classified as transport of dangerous goods on the international rail network.

Scoring:

Not applicable. This is a verification indicator.

2. 2-SO-2.2: Training of personnel involved in the transport of dangerous goods

2-SO-2.2a: Provision of function-specific training

Definition:

Degree of harmonization of internationally/regionally agreed rules in the provision of function-specific training for carrier's and railway infrastructure manager's personnel involved in the transport of dangerous goods. The internationally agreed elements of function-specific training are set out in RID.

Scoring:

- The provision is developed based on internationally agreed rules: 10 points
 - The provision is developed based on regionally agreed rules: 5 points
 - The provision is developed partially based on internationally/regionally agreed rules: 3 points
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2-SO-2.2a: *Provision of function-specific training*

- The provision does not recognize internationally/regionally agreed rules or no training provisions in place: 0 point
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3. 2-SO-2.3: Checks and other support measures to ensure compliance with safety requirements

2-SO-2.3a: *Provisions for trains transporting dangerous goods*

Definition:

The extent to which the carriage of dangerous goods is subject to the mandatory use of trains required by the international standards for the carriage of dangerous goods as regards their construction, type approval, RID approval and annual technical inspection.

Scoring:

- Mandatory: 10 points
- Voluntary: 5 points
- Non-existing: 0 point

2-SO-2.3b: Number of accidents and incidents involving transport of dangerous goods

Definition:

The number of accidents and incidents involving transport of dangerous goods by rail per 100,000 train-kms driven per year.

Scoring:

Not applicable. This is a verification indicator.

III. Environmental Sustainability (EV)

A. 2-EV-1: Fleet

2-EV-1.1: *Average age of rolling stocks*

Definition:

The average age of rolling stock involved in international transport.

Scoring:

- age < 15 years: 10 points

2-EV-1.1: Average age of rolling stocks

- 15 years \leq age < 20 years: 7 points
- 20 years \leq age < 25 years: 4 points
- age \geq 25 years: 0 point

*2-EV-1.2: Average age of locomotives**Definition:*

The average age of locomotives involved in international transport.

Scoring:

- age < 15 years: 10 points
- 15 years \leq age < 20 years: 7 points
- 20 years \leq age < 25 years: 4 points
- age \geq 25 years: 0 point

*2-EV-1.3: Number of hydrogen-powered train**Definition:*

Ratio of the number of hydrogen-powered train involved in international transport, to the total number of trains involved in international transport in the country per year.

Scoring:

- ratio \geq 10%: 10 points
- 8% \leq ratio < 10%: 8 points
- 6% \leq ratio < 8%: 6 points
- 4% \leq ratio < 6%: 4 points
- 2% \leq ratio < 4%: 2 points
- ratio < 2%: 0 point

B. 2-EV-2: Emission

2-EV-2.1: Modal share of passenger rail transport

Definition:

Ratio of the passenger kilometers performed with rail transport modes to the total passenger kilometers involved in international journeys per year.

Scoring:

- ratio $\geq 90\%$: 10 points
- $75\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 75\%$: 6 points
- $25\% \leq \text{ratio} < 50\%$: 4 points
- $10\% \leq \text{ratio} < 25\%$: 2 points
- ratio $< 10\%$: 0 point

2-EV-2.2: Implementation of technical adaptation measures in rail transport

Definition:

Degree of implementation of technical adaptation measures for rail to project climate change impacts on rail transport system and to propose adaptation options. Some examples of technical adaptation measures for rail are greater resilience of the network to heavy precipitation, and installation of monitoring systems consisting of various environmental and engineering sensors (anemometers) along rail lines.

Scoring:

- Measures have been implemented: 10 points
 - Measures are currently being developed: 7 points
 - Measures are planned to be developed: 4 points
 - No measures planned to be developed: 0 point
-

Inland waterway transport connectivity indicators

I. Economic Sustainability (EC)

A. 3-EC-1: Efficiency

3-EC-1.1: Waiting times at ports

Definition:

The average waiting times at port, defined by the period from the latest time of acceptance of goods to the departure of vessels and from the arrival of vessels to the beginning of unloading of containers.

Scoring:

- time \leq 1 hour: 10 points
- 2 hours \leq time $<$ 1 hour: 5 points
- time $>$ 2 hours: 0 point

3-EC-1.2: Waiting times at locks

Definition:

The average waiting times at locks, defined by the period from the arrival of vessels at the locks area to the time when the vessels are allowed to enter the system.

Scoring:

- time \leq 20 minutes: 10 points
- 60 minutes \leq time $<$ 20 minutes: 5 points
- time $>$ 60 minutes: 0 point

3-EC-1.3: Nighttime operation

Definition:

Whether the majority of inland waterways in the country allow for nighttime navigation.

3-EC-1.1: *Waiting times at ports*

Scoring:

- allow for nighttime navigation: 10 points
 - do not allow for nighttime navigation: 0 point
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B. 3-EC-2: Cost

3-EC-2.1: *Port dues*

Definition:

The average inland port dues applied in the country relative to the average port dues in the region. It concerns a charge levied by the port to all ships entering the port till the time it leaves the port, and generally calculated on the gross registered tonnage of the ship as per the tonnage certificate issued for that ship.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

3-EC-2.2: Tugboat service cost

Definition:

The average tugboat service cost applied in inland navigation ports in the country relative to the average tugboat service cost in the region. The costs are normally calculated based on the size of the tugboat in addition to an hourly usage charge.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

3-EC-2.3: Tonnage dues

3-EC-2.1: Port dues

Definition:

The average tonnage dues applied in inland navigation ports in the country relative to the average tonnage dues in the region. This is a charge paid by the vessel operator to a port for the usage of the port.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

*3-EC-2.4: Cargo dues**Definition:*

The average cargo dues applied in inland navigation ports in the country relative to the average cargo dues in the region. This concerns a fee levied by the port for using the port facilities for movement of the cargo.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is less than 50% higher than the regional average: 4 points
- Cost is more than 50% higher than the regional average: 0 point

*3-EC-2.5: Lock service charges**Definition:*

The average lock service charges applied along the inland waterways in the country relative to the average similar charges in the region.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
 - Cost is less than 50% lower than the regional average: 7 points
 - Cost is less than 50% higher than the regional average: 4 points
 - Cost is more than 50% higher than the regional average: 0 point
-

C. 3-EC-3: Infrastructure

3-EC-3.1: Percentage of IWW with international technical parameters

Definition:

Ratio of the length of IWW of international importance (in Europe these are E waterways) that complies with the internationally/regionally agreed technical and operational parameters, to the total length of the IWW in the country. The target infrastructure parameters are set out in the “Inventory of Main Standards and Parameters of the E Waterway Network”.

Scoring:

- ratio \geq 80%: 10 points
- $60\% \leq$ ratio $<$ 80%: 8 points
- $40\% \leq$ ratio $<$ 60%: 6 points
- $20\% \leq$ ratio $<$ 40%: 4 points
- ratio $<$ 20%: 0 point

3-EC-3.2: Cargo handling capacity of inland navigation ports

Definition:

Ratio of cargo handling capacity of inland navigation ports of international importance (in Europe these are E ports) in the country to the minimum capacity set out in the international agreements. In AGN (the European Agreement on Main Inland Waterways of International Importance), this has been set at 0.5 million tones/year. The target parameters of ports are set out in the “Inventory of Main Standards and Parameters of the E Waterway Network”.

Scoring:

- ratio \geq 80%: 10 points
- $60\% \leq$ ratio $<$ 80%: 8 points
- $40\% \leq$ ratio $<$ 60%: 6 points
- $20\% \leq$ ratio $<$ 40%: 4 points
- ratio $<$ 20%: 0 point

3-EC-3.3: Number of destination countries that can be reached by international IWW corridors and coastal routes

Definition:

The total number of destination countries that can be reached by the international IWW corridors and coastal routes that passing through the country.

3-EC-3.1: Percentage of IWW with international technical parameters

Scoring:

Not applicable. This is a verification indicator.

3-EC-3.4: Harmonization of national laws on IWW

Definition:

Degree of harmonization of the AGN and other relevant international conventions and legal instruments in the national laws on IWW (e.g. Inland Waterway Navigation and Ports Legislation and Maritime Code).

Scoring:

- Fully harmonized: 10 points
 - Partially harmonized: 7 points
 - Not harmonized: 4 points
 - No national law: 0 point
-

D. 3-EC-4: Operations

3-EC-4.1: Harmonization of boatmaster's certificates

Definition:

Level of harmonization of national boatmaster's certificates as per sub-regionally agreed arrangements.

Scoring:

- Subregionally harmonized: 6 points
- Bilaterally harmonized: 4 points
- Only nationally recognized: 2 points
- No certificate issuance procedure in place: 0 point

3-EC-4.2: Contract of carriage requirements

Definition:

Level of harmonization of the contract of carriage requirements as per internationally and/or regionally agreed arrangements.

3-EC-4.1: Harmonization of boatmaster's certificates

Scoring:

- Globally harmonized (recognition of CMNI): 10 points
 - Regionally harmonized: 8 points
 - Subregionally harmonized: 6 points
 - Bilaterally harmonized: 4 points
 - No common arrangements: 0 point
-

E. 3-EC-5: Intermodality/Combined Transport

3-EC-5.1: Modal share of freight by IWW

Definition:

Ratio of ton-kms of freight by IWW to the total ton-kms by road, rail and IWW per year.

Scoring:

- ratio $\geq 10\%$: 10 points
- $8\% \leq \text{ratio} < 10\%$: 8 points
- $6\% \leq \text{ratio} < 8\%$: 6 points
- $4\% \leq \text{ratio} < 6\%$: 4 points
- $2\% \leq \text{ratio} < 4\%$: 2 points
- ratio $< 2\%$: 0 point

3-EC-5.2: Connection of port terminals with road and railway

Definition:

Whether the terminals in inland waterway ports are connected with main roads and railway lines.

Scoring:

- Connected with both international road and rail networks: 9 points
 - Connected with either international road or rail network: 7 points
-

3-EC-5.1: Modal share of freight by IWW

- Connected with both main roads and railway lines not belonging to the international network: 5 points
 - Connected with either main roads or railway lines not belonging to the international network: 3 points
 - No road and railway connection: 0 point
 - Connected with sea lanes: +1 point
-

F. 3-EC-6: ICT and Intelligent Transport System Solutions

3-EC-6.1: Percentage of IWW equipped with RIS

Definition:

Ratio of the length of inland waterways equipped with River Information Services (RIS) to the total length of IWW network.

Scoring:

- ratio $\geq 80\%$: 10 points
- $60\% \leq \text{ratio} < 80\%$: 8 points
- $40\% \leq \text{ratio} < 60\%$: 6 points
- $20\% \leq \text{ratio} < 40\%$: 4 points
- ratio $< 20\%$: 0 point

3-EC-6.2: Application of RIS technological solutions

Definition:

Degree of application of RIS technological solutions in the country, which include (1) VHF radio; (2) Mobile data communication; (3) Global Navigation Satellite Systems (GNSS); (4) Internet; (5) Vessel tracking and tracing system; (6) Ship reporting system.

Scoring:

- All 6 systems are in place: 10 points
- 4-5 systems are in place: 8 points
- 2-3 systems are in place: 6 points
- 1 system is in place: 4 points
- No system is in place: 0 point

3-EC-6.1: Percentage of IWW equipped with RIS

3-EC-6.3: Percentage of IWW covered by Inland ECDIS standard

Definition:

Ratio of the length of IWW of international importance that are covered by Inland ECDIS (Electronic Chart Display Information System) standard, to the total length of the international IWW in the country.

Scoring:

- ratio \geq 80%: 10 points
- $60\% \leq$ ratio $<$ 80%: 8 points
- $40\% \leq$ ratio $<$ 60%: 6 points
- $20\% \leq$ ratio $<$ 40%: 4 points
- ratio $<$ 20%: 0 point

3-EC-6.4: Percentage of IWW equipped with AIS

Definition:

Ratio of the length of inland waterways equipped with Automatic Identification System (AIS) to the total length of IWW network.

Scoring:

- ratio \geq 80%: 10 points
 - $60\% \leq$ ratio $<$ 80%: 8 points
 - $40\% \leq$ ratio $<$ 60%: 6 points
 - $20\% \leq$ ratio $<$ 40%: 4 points
 - ratio $<$ 20%: 0 point
-

II. Social Sustainability (SO)

A. 3-SO-1: Traffic Rules

3-SO-1.1: Application of internationally harmonized navigation rules

Definition:

Degree of application of internationally harmonized navigation rules (in Europe, these concern the European Code for Inland Waterways/CEVNI) on the country's international waterways.

Scoring:

- Fully harmonized: 10 points
- Partially harmonized: 7 points
- Not harmonized: 4 points
- No national legislations: 0 point

3-SO-1.2: Navigation-related accidents

Definition:

Number of navigation-related accidents per year. These concern the accidents that occur due to insufficient navigational infrastructure, such as navigational aids (cardinal marks, lateral marks and buoy etc.) and other signs & markings along waterway routes for both night and day navigation.

Scoring:

Not applicable. This is a verification indicator.

B. 3-SO.2: Vessels Regulations

3-SO-2.1: Harmonization of registration of inland navigation vessels

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the registration of inland navigation vessels, in the national laws and legislations.

Scoring:

- Globally harmonized: 10 points
- Regionally harmonized: 8 points

3-SO-2.1: Harmonization of registration of inland navigation vessels

- Subregionally harmonized: 6 points
- Bilaterally harmonized: 4 points
- Not recognizing international/regional provisions or no national law applied: 0 point

3-SO-2.2: Acceptance of harmonized mandatory vessel certificates

Definition:

Degree of acceptance of harmonized mandatory vessel related certificates (such as vessel certificate vessel and measurement certificate).

Scoring:

- Globally harmonized: 10 points
- Regionally harmonized: 8 points
- Subregionally harmonized: 6 points
- Bilaterally harmonized: 4 points
- Accept only national certificates: 0 point

3-SO-2.3: Number of vessels equipped with AIS

Definition:

Ratio of the number of vessels involved in international transport that are equipped with Automatic Identification System (AIS), to the total number of vessels involved in international transport in the country per year.

Scoring:

- ratio $\geq 90\%$: 10 points
- $75\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 75\%$: 6 points
- $25\% \leq \text{ratio} < 50\%$: 4 points
- $10\% \leq \text{ratio} < 25\%$: 2 points
- ratio $< 10\%$: 0 point

3-SO-2.4: Application of provisions for safety clearance, freeboard and draught marks

3-SO-2.1: Harmonization of registration of inland navigation vessels

Definition:

Degree of harmonization of internationally/regionally agreed provisions for safety clearance, freeboard and draught marks for inland navigation vessels, in the national laws and legislations.

Scoring:

- Globally harmonized: 10 points
- Regionally harmonized: 8 points
- Subregionally harmonized: 6 points
- Bilaterally harmonized: 4 points
- Not recognizing international/regional provisions or no national law applied: 0 point

3-SO-2.5: Application of provisions for passenger vessels

Definition:

Degree of harmonization of internationally/regionally agreed provisions for passenger vessels in the national laws and legislations.

Scoring:

- Globally harmonized: 10 points
 - Regionally harmonized: 8 points
 - Subregionally harmonized: 6 points
 - Bilaterally harmonized: 4 points
 - Not recognizing international/regional provisions or no national law applied: 0 point
-

C. 3-SO-3: Dangerous Goods Transport – Administrative Requirements

1. 3-SO-3.1: Training of personnel involved in the transport of dangerous goods

3-SO-3.1a: Provision of function-specific training

Definition:

Degree of harmonization of internationally/regionally agreed rules in the provision of function-specific training for personnel and crew involved in the transport of dangerous goods. The internationally agreed elements of function-specific training are set out in ADN.

Scoring:

- The provision is developed based on internationally agreed rules: 10 points
- The provision is developed based on regionally agreed rules: 5 points
- The provision is developed partially based on internationally/regionally agreed rules: 3 points
- The provision does not recognize internationally/regionally agreed rules or no training provisions in place: 0 point

3-SO-3.1b: Percentage of transport of dangerous goods

Definition:

Percentage of traffic classified as transport of dangerous goods on the IWW network.

Scoring:

Not applicable. This is a verification indicator.

2. 3-SO-3.2: Checks and other support measures to ensure compliance with safety requirements

3-SO-3.2a: Harmonization of procedures for appointment of inspection bodies

Definition:

Degree of harmonization of international/regional provisions in the national legislations on the procedures for appointment of inspection bodies. The inspection bodies are expert bodies on the construction and inspection of inland navigation vessels and as expert bodies on the transport of dangerous goods by inland waterway.

Scoring:

- The appointment procedures are developed based on internationally agreed provisions: 10 points
- The appointment procedures are developed based on regionally agreed provisions: 5 points

- The appointment procedures are not developed based on internationally/ regionally agreed provisions, but recognize them: 3 points
- Not recognizing international/regional provisions or no procedures in place: 0 point

3-SO-3.2b: Provisions for vessels transporting dangerous goods

Definition:

The extent to which the carriage of dangerous goods is subject to the mandatory use of vessels required by the international standards for the carriage of dangerous goods as regards their construction, type approval, ADN approval and technical inspections.

Scoring:

- Mandatory: 10 points
- Voluntary: 5 points
- Non-existing: 0 point

3. 3-SO-3.3: Provisions concerning transport equipment and transport operations involving dangerous goods

3-SO-3.3a: Provisions concerning loading, carriage, unloading and handling of dangerous goods

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national regulatory provisions concerning loading, carriage, unloading and handling of dangerous goods.

Scoring:

- The national regulatory provisions are developed based on internationally agreed provisions: 10 points
- The national regulatory provisions are developed based on regionally agreed provisions: 5 points
- The national regulatory provisions are deviating from the internationally/regionally agreed provisions or no national regulatory provisions in place: 0 point

3-SO-3.3b: Mandatory requirements concerning vessels and equipment

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national legislations on requirements concerning vessels and equipment, e.g. fire-extinguishing arrangements and special equipment.

Scoring:

- The requirements are developed based on internationally agreed provisions: 10 points
-

- The requirements are developed based on regionally agreed provisions: 5 points
 - The national legislations are deviating from the internationally/regionally agreed provisions or no national legislations in place: 0 point
-

D. 3-SO-4: Dangerous Goods Transport – Infrastructure/Hardware Requirements

3-SO-4.1: Requirements concerning the construction of vessels

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national law on the requirements of vessels for the transport of dangerous goods, as regards the rules for construction of dry cargo and tank vessels, and construction applicable to seagoing vessels.

Scoring:

- The construction rules are developed based on internationally agreed provisions (ADN): 10 points
- The construction rules are developed based on regionally agreed provisions: 5 points
- The construction rules are deviating from the internationally/regionally agreed provisions or no requirements in place: 0 point

3-SO-4.2: Harmonization of requirements to be complied with by vessel crew

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national law on the requirements to be complied with by the vessel crew, such as type of portable lamps and prohibition on smoking, fire and naked light.

Scoring:

- The requirements are developed based on internationally agreed provisions (ADR): 10 points
 - The requirements are developed based on regionally agreed provisions: 5 points
 - The requirements are deviating from the internationally/regionally agreed provisions or no requirements in place: 0 point
-

III. Environmental Sustainability (EV)

A. 3-EV-1: Fleet

3-EV-1.1: Number of alternative fuel inland vessels

3-EV-1.1: Number of alternative fuel inland vessels

Definition:

Ratio of the number of alternative fuel inland vessels to the total number of inland vessels in the country per year. Alternative fuels for inland vessels are liquefied natural gas, liquefied petroleum gas, methanol, biofuel, hydrogen, as well as electromotion, hybrid (diesel-electric), fuel cell and battery systems.

Scoring:

- ratio \geq 20%: 10 points
- $15\% \leq$ ratio $<$ 20%: 8 points
- $10\% \leq$ ratio $<$ 15%: 6 points
- $5\% \leq$ ratio $<$ 10%: 4 points
- ratio $<$ 5%: 0 point

*3-EV-1.2: Average age of vessels**Definition:*

The average age of inland vessels involved in international transport.

Scoring:

- age \leq 10 years: 10 points
 - 10 years $<$ age \leq 30 years: 7 points
 - 30 years $<$ age \leq 50 years: 4 points
 - age $>$ 50 years: 0 point
-

B. 3-EV-2: Emission

3-EV-2.1: Harmonization of water pollution prevention

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the prevention of water pollution produced by vessels in the national laws and legislations.

Scoring:

- Globally harmonized: 10 points
- Regionally harmonized: 8 points

3-EV-2.1: Harmonization of water pollution prevention

- Subregionally harmonized: 6 points
- Bilaterally harmonized: 4 points
- Not recognizing international/regional provisions or no national law applied: 0 point

3-EV-2.2: Modal share of passengers IWW transport

Definition:

Ratio of the passenger kilometers performed with IWW transport to the total passenger kilometers involved in international journeys per year.

Scoring:

- ratio $\geq 10\%$: 10 points
- $8\% \leq \text{ratio} < 10\%$: 8 points
- $6\% \leq \text{ratio} < 8\%$: 6 points
- $4\% \leq \text{ratio} < 6\%$: 4 points
- $2\% \leq \text{ratio} < 4\%$: 2 points
- ratio $< 2\%$: 0 point

3-EV-2.3: Implementation of technical adaptation measures in inland waterways

Definition:

Degree of implementation of technical adaptation measures for inland waterways to project climate change impacts on inland waterways system and to propose adaptation options. Some examples of documents where such measures are addressed are Climate Change Adaptation Plan for International IW Network (USA), and The impact of climate change to inland waterway transport and the competitive position of the port of Rotterdam (the Netherlands).

Scoring:

- Measures have been implemented: 10 points
 - Measures are currently being developed: 7 points
 - Measures are planned to be developed: 4 points
 - No measures planned to be developed: 0 point
-

Road transport connectivity Indicators¹

I. Economic Sustainability (EC)

A. 1-EC-1: Efficiency

1-EC-1.1: Staff resources at road BCPs and inland clearance stations

Definition:

Adequacy of the number of personnel at road BCPs and inland clearance stations to cope with the freight volumes involved. Staff categories include Customs, border guards/police, Health and Safety Executive, State Veterinary Office, State Plant Health Protection Agency, Public Health Agency, Food and Drug Administration, Service for Foreigners' Affairs, National Revenue Services, Vehicle and Operators Services Agency, and Department of Transport.

Scoring:

- All staff categories available 24/7 at more than 50% of considered BCPs and inland clearance stations: 10 points
- Some staff categories available 24/7 at more than 50% of considered BCPs and inland clearance stations: 8 points
- All staff categories available during office hours at more than 50% of considered BCPs and inland clearance stations: 6 points
- Some staff categories available during office hours at more than 50% of considered BCPs and inland clearance stations: 4 points
- Staff available only with appointment: 2 points
- No staff at BCPs and inland clearance stations: 0 point

1-EC-1.2a: BCP infrastructure (Joint controls facilities)

¹ Important notes:

- Many indicators use the terms “region(al)” and “sub-region(al)”. Region should be defined as a group of countries that are engaged in economic cooperation that might cover sub-region and the adjoining countries of the sub-region. While sub-region involves a group of adjoining countries.
- Some sub-indicators might not apply to a country. For example, if tolling system does not exist in a country, then the scoring of sub-indicator 1-EC-7.11 (Application of Electronic Toll Collection systems) should be excluded from the overall score.

Definition:

Availability and opening hours of joint controls facilities at road BCPs open for international goods traffic. It concerns facilities for domestic controls as well as joint controls with the adjoining country. In terms of opening hours, Article 6 of the Annex 8 to the Harmonization Convention sets out 24 hours a day as a minimum requirement.

Scoring:

- Facilities for joint bilateral controls with the adjoining country (one-stop technology) are available 24 hours a day: 10 points
- Facilities for joint domestic controls (one-stop technology/ 2 stop border post) are available 24 hours a day: 8 points
- Facilities for either joint bilateral controls or domestic controls are available with limited opening hours (e.g. no night, weekend and holidays operation): 6 points
- No facilities for any type of joint controls: 0 point

1-EC-1.2b: BCP infrastructure (off-lane control areas)

Definition:

Availability and opening hours of off-lane control areas, for random cargo and vehicle checks, at road BCPs open for international goods traffic.

Scoring:

- Off-lane control areas are available, operated at all time, and used in >90% of cases: 10 points
- Off-lane control areas are available, operated only during certain times of the day/night, and only used in <90% of cases: 6 points
- No off-lane control areas available, inspections take place in the waiting line: 0 point

1-EC-1.2c: BCP infrastructure (parking and terminal facilities)

Definition:

Availability of appropriate parking and terminal facilities at road BCPs open for international goods traffic.

Scoring:

- Free parking facilities, with support services, are available on both sides of the BCP: 10 points
- Paid parking facilities, with support services, are available on both sides of the BCP: 8 points
- Free basic parking facilities are available: 6 points
- Paid basic parking facilities are available: 4 points

1-EC-1.1: Staff resources at road BCPs and inland clearance stations

- No parking facilities available: 0 points

1-EC-1.3: Inland clearance and control procedures for import

Definition:

The extent to which control procedures for import are undertaken at inland clearance stations away from the border so as to alleviate congestion and efficient movements at the BCPs. The control procedures are involving medico-sanitary inspection, veterinary inspection, phytosanitary inspection, controls of compliance with technical standards, quality controls, vehicle inspections, and weighing of vehicles .

The adoption of customs risk management system will get additional points as risk management procedures expedite the clearance of goods.

Scoring:

- All control procedures take place at inland clearance stations: 8 points
- >4 control procedures take place at inland clearance stations: 6 points
- <4 control procedures take place at inland clearance stations: 4 points
- All control procedures take place at BCPs: 0 point
- Application of customs risk management system: + 2 points

1-EC-1.4: Availability of fast lanes for trucks carrying live animals and perishable foodstuffs

Definition:

Availability of fast lanes/fast track treatment for trucks carrying live animals and perishable foodstuffs. As set out by the Harmonization Convention, priority should be given to live animals and perishable goods in order to minimize waiting times at BCPs.

Scoring:

- Fast lanes/fast track treatment are available: 6 points
- No fast lane available at BCPs: 0 points
- There is a bilateral cooperation on these issues with all adjoining countries: +2 points (if the country does not have a bilateral cooperation with one or some of the adjoining countries, the full 2 points should be reduced proportionally).
- Special provision for refrigerated containerized units (e.g. energy sources) is in place at all considered BCPs in the country: +2 points (if the units are not available at one or some of the considered BCPs in the country, the full 2 points should be reduced proportionally).

1-EC-1.5a: Coordination and delegation of controls among national border agencies

Definition:

The extent to which national border agencies (such as Health and Safety Authorities, Treasury, and Food and Drug Administration) delegate their control activities to other border agencies such as Customs authorities, in accordance with a cooperation agreement or MoU. By implementing a delegation mechanism, duplication and overlapping activities, and conflicting instructions and requirements can be reduced.

Scoring:

- A coordination and delegation mechanism is in place where all border agencies can at any time act/perform controls on each other's behalf: 10 points
- A coordination and delegation mechanism is in place, however only several border agencies can in specific cases (e.g. during off-peak hours and at night) act/perform controls on each other's behalf: 6 points
- No coordination and delegation mechanism in place, as such all government agencies act independently: 0 point

1-EC-1.5b: Coordination and delegation of controls between agencies of neighboring countries

Definition:

The extent to which border agencies from both sides of the BCP coordinate with each other or delegate the control procedures to each other at a designated single common border post/station, in accordance with a bilateral agreement or MoU). Implementing such a coordination and delegation mechanism will increase the border crossing efficiency.

Scoring:

- A coordination and delegation mechanism is in place, where border agencies from both sides of the BCP at any time act/perform controls together or on each other's behalf: 8 points
- A coordination and delegation mechanism is in place, where border agencies from both sides of the BCP in specific cases (e.g. during off-peak hours and at night) act/perform controls jointly or on each other's behalf: 6 points
- Common open hours as determined by traffic volume: +2 points
- No coordination and delegation mechanism in place, as such border agencies from both sides of the BCP act independently: 0 point

1-EC-1.5c: Exchange of data and information among national border agencies

Definition:

Degree of implementation of data and information exchange (including for risk management purposes) among national border agencies, so as to increase time efficiency and provide accurate information for statistic purposes.

1-EC-1.1: Staff resources at road BCPs and inland clearance stations

Scoring:

- Data and information (including for risk management purposes) are shared among different national border agencies at all times, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 10 points
 - Data and information (including for risk management purposes) are shared, on a case-by-case basis, among different national border agencies, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 8 points
 - Data and information (including for risk management purposes) are shared, on a case-by-case basis, among different national border agencies, through face-to-face consultations only: 6 points
 - No exchange of data and information: 0 point

1-EC-1.5d: Exchange of data and information with foreign border agencies

Definition:

Degree of implementation of data and information exchange (including for risk management purposes) with foreign border agencies, so as to increase time efficiency and provide accurate information for statistic purposes.

Scoring:

- Data and information (including for risk management purposes) are mutually accepted among different border agencies at the international level, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 10 points
- Data and information (including for risk management purposes) are shared among different border agencies at the international level, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 8 points
- Data and information (including for risk management purposes) are partially shared among different border agencies at the international level, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 6 points
- Data and information (including for risk management purposes) are shared, on a case-by-case basis, among different border agencies at the international level, through face-to-face consultations only: 4 points
- No exchange of data and information at the international level: 0 point

1-EC-1.6: Traffic separation for vehicles under cover of valid international customs transit documents

Definition:

Degree of implementation of traffic separation at the country's main BCPs in order to give priority to vehicles under cover of valid international/regional/sub-regional customs transit documents, such as TIR and temporary importation carnets, so as to decrease truck waiting times at BCPs.

1-EC-1.1: Staff resources at road BCPs and inland clearance stations

Scoring:

- Separation of traffic, at all times, to give priority to vehicles under cover of customs transit documents: 10 points
 - Separation of traffic, in some cases (e.g. peak/off-peak hours and day or night shift), to give priority to vehicles under cover of customs transit documents: 5 points
 - No separation of traffic: 0 point
-

B. 1-EC-2: Time required at borders

1-EC-2.1a: Average border clearance time for transit TIR trucks (with physical inspection)

Definition:

The average border clearance time (in minutes) needed by a transit TIR-truck, when physical inspections are involved. It is calculated by summing the clearance time of all inspected transit TIR-trucks divided by the number of inspected transit TIR-trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.

1-EC-2.1b: Average border clearance time for transit TIR trucks (without physical inspection)

Definition:

The average border clearance time (in minutes) needed by a transit TIR-truck, when no physical inspections are involved. It is calculated by summing the clearance time of all surveyed transit TIR-trucks divided by the number of surveyed transit TIR-trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.

1-EC-2.2a: Average border clearance time for non-TIR transit trucks (with physical inspection)

Definition:

The average border clearance time (in minutes) needed by a transit non-TIR truck, when physical inspections are involved. It is calculated by summing the clearance time of all inspected non-TIR transit trucks divided by the number of inspected non-TIR transit trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

1-EC-2.1a: Average border clearance time for transit TIR trucks (with physical inspection)

Scoring:

- Not applicable. This is a verification indicator.

1-EC-2.2b: Average border clearance time for non-TIR transit trucks (without physical inspection)

Definition:

The average border clearance time (in minutes) needed by a non-TIR transit truck, when no physical inspections are involved. It is calculated by summing the clearance time of all surveyed non-TIR transit trucks divided by the number of inspected non-TIR transit trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.

1-EC-2.3: Average queuing time

Definition:

The average queuing time (in minutes) for trucks at customs point of entry. Time taken into consideration starts when a truck joins the queue and ends when the truck reaches the customs booth. Average time is calculated by summing the queuing time of all surveyed trucks divided by the number of surveyed trucks. The survey should capture queuing time by time of day (peak and off-peak) and day of week.

Scoring:

- Not applicable. This is a verification indicator.
-

C. 1-EC-3: Cost

1-EC-3.1a: Average customs clearance cost (exports)

Definition:

The average customs clearance cost for exports. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges. Region can be defined as a group of countries that are engaged in economic cooperation that might cover sub-region and the adjoining countries of the sub-region.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points

1-EC-3.1a: Average customs clearance cost (exports)

- Cost is in line with the regional average: 4 points
- Cost is less than 50% higher than the regional average: 2 points
- Cost is more than 50% higher than the regional average: 0 point

1-EC-3.1b: Average customs clearance cost (imports)

Definition:

The average customs clearance cost for imports. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is in line with the regional average: 4 points
- Cost is less than 50% higher than the regional average: 2 points
- Cost is more than 50% higher than the regional average: 0 point

1-EC-3.1c: Average customs clearance cost (transit)

Definition:

The average customs clearance cost for transit cargo. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges.

Scoring:

- Cost is more than 50% lower than the regional average: 10 points
- Cost is less than 50% lower than the regional average: 7 points
- Cost is in line with the regional average: 4 points
- Cost is less than 50% higher than the regional average: 2 points
- Cost is more than 50% higher than the regional average: 0 point

1-EC-3.2: Average road freight rate

1-EC-3.1a: Average customs clearance cost (exports)

Definition:

Average road freight rate is defined as the average trucking fee per ton-km applied in the country, relative to the average rate in the region.

Scoring:

- Rate is more than 50% lower than the regional average: 10 points
- Rate is less than 50% lower than the regional average: 7 points
- Rate is in line with the regional average: 4 points
- Rate is less than 50% higher than the regional average: 2 points
- Rate is more than 50% higher than the regional average: 0 point

1-EC-3.3: Visa requirements for professional drivers

Definition:

The extent to which the country requires visa for foreign professional drivers who wish to enter the country.

Scoring:

- No visa required for nationals from the region: 10 points
- No visa required for nationals from the adjoining countries: 8 points
- If visa is required, multiple-entry visa valid for one year or more can be obtained with processing time no longer than that of the application for multiple-entry business visa: 6 points
- If visa is required, multiple-entry visa valid for one year or more can be obtained, but the processing time is longer than that of the application for multiple-entry business visa: 4 points
- If visa is required, only single-entry visa can be applied: 2 points
- No issuance of visa for professional drivers, as such drivers are not allowed to enter beyond the BCP premises: 0 point

1-EC-3.4: Cost for foreign drivers

Definition:

Average cost for foreign drivers wishing to enter the country, if allowed. The cost involved is the cost per entry, defined as the cost associated with visa, fees, insurance, and a temporary driving license and temporary taxes for vehicle registration, if applicable.

1-EC-3.1a: Average customs clearance cost (exports)

Scoring:

- <\$50: 10 points
 - \$50 until < \$100: 8 points
 - \$100 until < \$150: 6 points
 - \$150 until < \$200: 4 points
 - \$200 until < \$250: 2 points
 - \geq \$250: 0 point
-

D. 1-EC-4: Infrastructure

1-EC-4.1: Percentage of international road network

Definition:

Ratio of the total length of international roads to the total road network in the country. International roads concern international motorways, international express roads and international ordinary roads as defined by the AGR (UNECE), and international routes of regional, international and intraregional importance as defined by the Asian highway (UNESCAP), ECLAC, and M network (ESCWA).

Scoring:

- Ratio \geq 4%: 10 point
- $3\% \leq$ ratio < 4%: 8 points
- $2\% \leq$ ratio < 3%: 6 points
- $1\% \leq$ ratio < 2%: 4 points
- ratio < 1%: 0 point

1-EC-4.2: Length of international road network per class

Definition:

Ratio of the total length of class 3 international roads to the total international road network in the country. Class 3 is the lowest class of international roads as defined by the AGR. For the Arab states, this concerns the second-class roads of the M network. In other regions, the road classification might be different. This indicator is about the lowest class as per the classification of the international road network followed by the country.

1-EC-4.1: Percentage of international road network

Scoring:

- ratio < 20%: 10 points
- $20\% \leq \text{ratio} < 40\%$: 7 points
- $40\% \leq \text{ratio} < 60\%$: 5 points
- $60\% \leq \text{ratio} < 80\%$: 2 points
- ratio $\geq 80\%$: 0 point

1-EC-4.3: Harmonization of road classes at BCP

Definition:

The number of country's BCPs with harmonized road classes within 50 km of a BCP. When the roads on one side of a BCP are for instance class 1 roads, while the roads on the other side of the BCP are class 3 roads, this situation is unharmonized and creates a bottleneck.

Scoring:

- Entirely harmonized (100%): 10 points
- Harmonization applies at 80% - < 100% of the country's BCPs: 8 points
- Harmonization applies at 60% - < 80% of the country's BCPs: 6 points
- Harmonization applies at 40% - < 60% of the country's BCPs: 4 points
- Harmonization applies at 20% - < 40% of the country's BCPs: 2 points
- Harmonization applies at < 20% of the country's BCPs: 0 point

1-EC-4.4: Harmonization of BCP infrastructure

Definition:

Level of harmonization of BCP infrastructure between the assessed country and the adjoining country. It concerns the harmonization of the following: (1) number of channels; (2) number of parking lots; (3) number of bays for inspections; (4) height of monitoring gantries. If there is more than one BCP, the average score of all BCPs should be calculated. If there is more than one adjoining country, the average score should also be calculated.

Scoring:

- All 4 infrastructure items are harmonized: 10 points
- 3 infrastructure items are harmonized: 8 points

1-EC-4.1: Percentage of international road network

- 2 infrastructure items are harmonized: 6 points
- 1 infrastructure item is harmonized: 4 points
- None is harmonized: 0 point

1-EC-4.5: Length of international road network with design speeds of at least 100 km/h

Definition:

Ratio of the total length of international roads with design speeds of at least 100 km/h to the total international road network in the country.

Scoring:

- Ratio $\geq 80\%$: 10 point
- $60\% \leq \text{ratio} < 80\%$: 8 points
- $40\% \leq \text{ratio} < 60\%$: 6 points
- $20\% \leq \text{ratio} < 40\%$: 4 points
- ratio $< 20\%$: 0 point

1-EC-4.6: Design standard and technical specifications of new international roads

Definition:

The extent to which the construction of new international roads complies with the internationally and/or regionally agreed standards, in terms of parameters of design and dimensions, number and width of traffic lanes, geometric characteristics and other technical specifications, conditioned by its functions, its location (topography, land use, etc.) and the general technical and economic context.

Scoring:

- In accordance with internationally agreed standards: 10 points
- In accordance with regionally agreed standards: 5 points
- Differing from internationally/regionally standards: 0 point

1-EC-4.7: Sufficiency of service facilities along international roads

Definition:

The extent to which the provision of rest and service areas, the number of toll and border crossing control lanes are determined in terms of the volume of traffic anticipated.

1-EC-4.1: Percentage of international road network

Scoring:

- Fully taking the volume of traffic into account: 10 points
- Partially taking the volume of traffic into account: 5 points
- Not taking the volume of traffic into account: 0 point

1-EC-4.8: Provision of tunnel management systems

Definition:

The extent to which traffic management systems and control center are provided for long tunnels (tunnels with lengths of over 500 meters) and tunnels with heavy traffic (higher than an annual daily average of 2000 vehicles per lane), as set out in AGR.

Scoring:

- The systems are covering all long tunnels and tunnels with heavy traffic in the country: 10 points
- The systems are covering more than 50% of long tunnels and tunnels with heavy traffic in the country: 7 points
- The systems are covering less than 50% of long tunnels and tunnels with heavy traffic in the country: 4 points
- No tunnel management systems in place: 0 point

1-EC-4.9: Provision of safety equipment for tunnels

Definition:

Ratio of the length of long tunnels and tunnels with heavy traffic, equipped with emergency exits and access for emergency services, and tunnel equipment (such as lighting devices and ventilation systems) as per AGR or similar agreements applied in the country, to the total length of long tunnels and tunnels with heavy traffic on the international road network.

Scoring:

- $\text{ratio} \geq 90\%$: 10 points
 - $75\% \leq \text{ratio} < 90\%$: 8 points
 - $50\% \leq \text{ratio} < 75\%$: 6 points
 - $25\% \leq \text{ratio} < 50\%$: 4 points
 - $10\% \leq \text{ratio} < 25\%$: 2 points
 - $\text{ratio} < 10\%$: 0 point
-

E. 1-EC-5: Operations

1-EC-5.1: Access rights for transport operators from adjoining countries

Definition:

The extent to which access is given to transport operators from adjoining countries to enter the country in terms of issuance of permit and quota restriction.

Scoring:

- Access without quota and without designated routes: 10 points
- Access with quota and without designated routes: 8 points
- Access without quota and with designated routes: 6 points
- Access with quota and with designated routes: 4 points
- Access to the border areas only: 1 points
- No access or trans-loading at BCPs: 0 point

1-EC-5.2: Admission requirements for means of transport

Definition:

Admission requirements for means of transport, incl. vehicles and containers, based on the UN Temporary Importation Conventions, Container Convention, TIR Convention and the WCO Istanbul Convention.

Scoring:

- Application of the international convention regime: 10 points
- Application of regional regime equivalent to the applicable international conventions: 8 points
- Application of an equivalent subregional regime: 6 points
- Application of a simplified bilateral regime: 4 points
- Trip-based guarantee system: 2 points
- No admission: 0 point

1-EC-5.3: Driving permit recognition

Definition:

Degree of recognition of driving permit based on the UN Conventions on Road Traffic and Harmonization Convention.

1-EC-5.1: Access rights for transport operators from adjoining countries

Scoring:

- Recognition of International Driving Permit: 10 points
- Mutual recognition of domestic driving permit: 8 points
- Bilateral arrangement with additional documents: 6 points
- No arrangement: 0 point

1-EC-5.4: Vehicle insurance recognition

Definition:

Degree of recognition of vehicle insurance for foreign vehicles.

Scoring:

- Global or regional (Green Card or equivalent): 10 points
- Subregional regime (similar to Green Card): 8 points
- Bilateral inter-country coverage: 6 points
- Trip-based insurance available at BCPs: 5 points
- No facility: 0 point

1-EC-5.5: Contract of carriage requirements

Definition:

Level of harmonization of the contract of carriage requirements as per internationally and/or regionally agreed arrangements.

Scoring:

- Globally harmonized (recognition of CMR): 10 points
- Regionally or subregionally harmonized: 8 points
- Bilaterally harmonized with common full contract conditions, arrangements for legal issues and consignment note: 6 points
- No common arrangements: 0 point

1-EC-5.6: Weight and vehicle dimension requirements

1-EC-5.1: Access rights for transport operators from adjoining countries

Definition:

Degree of harmonization of the weight and vehicle dimension requirements with the internationally and/or regionally agreed standards, so as to avoid repetitive vehicle weighing procedures at BCPs.

Scoring:

- Use of International Vehicle Weight Certificate (as set out by the Harmonization Convention): 10 points
 - Adhere to the regional standards: 8 points
 - Adhere to the subregional standards: 6 points
 - Use of domestic standards: 4 points
 - No arrangement: 0 point
-

F. 1-EC-6: Intermodality/Combined Transport

1-EC-6.1: Modal share of freight road transport

Definition:

Ratio of freight ton-kms performed with road transport modes to the total ton-kms involved in international (transit) journeys per year.

Scoring:

- ratio < 10%: 10 points
- $10\% \leq \text{ratio} < 25\%$: 8 points
- $25\% \leq \text{ratio} < 50\%$: 6 points
- $50\% \leq \text{ratio} < 75\%$: 4 points
- $75\% \leq \text{ratio} < 90\%$: 2 points
- ratio $\geq 90\%$: 0 point

1-EC-6.2: System approach to intermodal transport

Definition:

Degree of harmonization of the national law on intermodal transport with the international and/or regional intermodal transport agreements, such as the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC).

1-EC-6.1: Modal share of freight road transport

Scoring:

- National law adheres to global intermodal transport agreement: 10 points
- National law adheres to regional intermodal transport agreement: 8 points
- National law adheres to sub-regional intermodal transport agreement: 6 points
- National law does not adhere to any intermodal transport agreement: 4 points
- No national law on intermodal transport: 0 point

1-EC-6.3: Share of multimodal, intermodal and combined cargo

Definition:

Ratio of the gross weight of international (transit) cargo (tones) that is transported by either multi-modal, inter-modal or combined transport, to the total gross weight of cargo per year. Multimodal refers to a single transport contract covering more than one mode of transport. Intermodal means one means of transport being moved by different modes such as trucks on ferries or trucks on railways. Combined Transport refers to the transport of goods in one and the same transport unit using more than one mode of transport (as defined by AGTC).

Scoring:

- share $\geq 75\%$: 10 points
- $75\% \leq$ share $< 50\%$: 7 points
- $50\% \leq$ share $< 25\%$: 4 points
- share $< 25\%$: 0 point

1-EC-6.4: Share of containerized cargo

Definition:

The share of containerization is defined as the gross weight of containerized cargo divided by the gross weight of international (transit) non-bulk cargo. Oil, coal, grain, bulk, cement, etc, are excluded.

Scoring:

- share $\geq 65\%$: 10 points
 - $50\% \leq$ share $< 65\%$: 8 points
 - $65\% \leq$ share $< 50\%$: 6 points
-

1-EC-6.1: Modal share of freight road transport

- $50\% \leq \text{share} < 25\%$: 4 points
 - $25\% \leq \text{share} < 10\%$: 2 points
 - $\text{share} < 10\%$: 0 point
-

G. 1-EC-7: ICT and Intelligent Transport System Solutions

1-EC-7.1: Implementation of interconnected e-solutions

Definition:

Degree of implementation of interconnected e-solutions for customs and border procedures, i.e. eTIR, eCMR, and e-Single Window system.

Scoring:

- eTIR and or eCMR or equivalents and inter-agency e-Single Window are implemented: 10 points
- Only e-Single Window is implemented: 8 points
- Only eTIR and/or eCMR is/are implemented, no e-Single Window: 6 points
- Use of electronic processing system: 4 points
- Manual processing: 0 point

1-EC-7.2: Application of advance electronic cargo information

Definition:

Degree of application of advance electronic cargo information for pre-clearance purposes.

Scoring:

- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for all cargo: 10 points
- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for the majority of cargo: 7 points
- Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for selected cargo only, the majority is processed manually upon arrival: 4 points
- No electronic pre-clearance cargo system in place, processing and clearance take place upon arrival of the cargo in the country of importation: 0 point

1-EC-7.3: Availability of detection equipment and inspection technologies

1-EC-7.1: Implementation of interconnected e-solutions

Definition:

Availability of detection equipment, scanning and non-intrusive inspection technologies including scanners for cargo, technology for detection of chemical, biological, radiological and nuclear materials, and e-Seal.

Scoring:

- Available at all BCPs and inland clearance stations: 10 points
- Available at more than 50% of BCPs and inland clearance stations: 7 points
- Available at less than 50% of BCPs and inland clearance stations: 4 points
- Not available in any BCPs nor inland clearance stations: 0 point

1-EC-7.4: Application of intelligent transport systems at BCPs**Definition:**

Degree of application of intelligent transport systems at and around BCPs, such as traffic light management, automatic vehicle registration number recognition, and automatic container recognition.

Scoring:

- Applied at all BCPs and inland clearance stations: 10 points
- Applied at more than 50% of BCPs and inland clearance stations: 7 points
- Applied at less than 50% of BCPs and inland clearance stations: 4 points
- Not available at any BCPs nor inland clearance stations: 0 point

1-EC-7.5: Application of intelligent traffic management systems**Definition:**

Degree of application of intelligent traffic management systems along international roads leading to BCPs. It concerns providing information to approaching trucks on the traffic situation at BCPs, i.e. traffic occupancy, processing and queuing time, and providing early recommendations such as postponing entry to BCPs or deviate to other BCPs.

Scoring:

- Systems are in place: 10 points
- Systems are not in place: 0 point

1-EC-7.6: Application of ICT systems

Definition:

Degree of application of information and communication support systems to the transport system in the country. The systems include:

- (1) Telecommunication Networks (TLC);
- (2) Automatic identification systems (Automatic Equipment Identification (AEI)/ Automatic Vehicle Identification (AVI));
- (3) Systems for automatically locating vehicles (AVLS);
- (4) Protocols for the electronic exchange of data (Electronic Data Interchange/EDI);
- (5) Cartographic databases and information systems providing geographical data (Geographic Information System/GIS);
- (6) Systems for the collection of traffic data, including Weigh-In-Motion (WIM) and systems for the automatic classification of vehicles;
- (7) Systems for counting the number of users of a public transport system (Automatic Passenger Counters/APC).

Scoring:

- All 7 systems are in place: 10 points
- 5-6 systems are in place: 8 points
- 3-4 systems are in place: 6 points
- 2 systems are in place: 4 points
- 1 system is in place: 2 points
- No system is in place: 0 point

1-EC-7.7: Number of national trucks with track and trace device

Definition:

Ratio of the number of national trucks equipped with track and trace devices to the total number of national trucks involved in international transport.

Scoring:

- Ratio $\geq 90\%$: 10 points
- $70\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 70\%$: 6 points

1-EC-7.1: Implementation of interconnected e-solutions

- $30\% \leq \text{ratio} < 50\%$: 4 points
- $10\% \leq \text{ratio} < 30\%$: 2 points
- $\text{ratio} < 10\%$: 0 point

1-EC-7.8: Application of fleet management**Definition:**

Degree of application of fleet management systems whereby vehicles can be tracked from a Traffic Control Center using GPS navigation devices together with communication facilities and digital cartography.

Scoring:

- Systems are in place: 10 points
- Systems are not in place: 0 point

1-EC-7.9: Application of roadside ITS**Definition:**

Degree of application of roadside ITS to increase efficiency and capability to act in terms of time and resource management. The roadside technology includes: (1) Traffic Control Centers (TCC); (2) Traffic information centers; (3) Video monitoring system for traffic; (4) Variable Message Signs (VMS) to distribute information concerning particular events in a timely fashion; (5) Automatic Incident Detection (AID); (6) Radio channels that both provide information to road users and are used for service communication purposes; (7) Roadside equipment for speed enforcement

Scoring:

- ≥ 7 systems are in place: 10 points
- 5-6 systems are in place: 8 points
- 3-4 systems are in place: 6 points
- 2 systems are in place: 4 points
- 1 system is in place: 2 points
- No system is in place: 0 point

1-EC-7.10: Application of pre-trip traffic information systems

1-EC-7.1: Implementation of interconnected e-solutions

Definition:

Degree of application of pre-trip traffic information systems to make international drivers aware of the traffic situation and travel conditions (so they can assess their travel options) through different types of media.

Scoring:

- Through web-based platforms: 10 points
- Through traditional channels such as radio: 6 points
- No system in place: 0 point

1-EC-7.11: Application of Electronic Toll Collection systems

Definition:

Application of Electronic Toll Collection (ETC) technology. The score is given based on the highest ETC technology implemented in the country.

Scoring:

- Global navigation satellite system: 8 points
 - Automatic Number Plate Recognition (ANPR)/ Dedicated Short Range Communications (DSRC)/Radio-Frequency Identification (RFID): 4 points
 - No ETC system is in place (cash payment only): 0 point
 - Systems are interoperable and based on open and public standards, available on a non-discriminatory basis to all system suppliers: additional 2 points
-

II Social Sustainability (SO)

A. 1-SO-1: Road Traffic Rules/Behavior

1-SO-1.1a: Harmonization of national laws on traffic rules

Definition:

Degree of harmonization of the UN Convention on Road Signs and Signals (1968) in the national laws covering traffic rules for drivers and specific rules for professional drivers, such as National Highway Code and Road Traffic Regulations.

1-SO-1.1a: Harmonization of national laws on traffic rules

Scoring:

- Fully harmonized: 10 points
- Partially harmonized: 7 points
- Not harmonized: 4 points
- No national law covering traffic rules: 0 point

1-SO-1.1b: Development of rules on traffic behavior

Definition:

The existence of rules on traffic behavior concerning position on carriageway, maneuvering, overtaking, passing of traffic, change of directions, behavior at intersections and level-crossings, giving way and use of lamps.

Scoring:

- Rules on traffic behavior are in place: 10 points
- No specific rules on traffic behavior in place: 0 point

1-SO-1.1c: Effective rules on speed

Definition:

The existence and effectiveness of rules on speed. The effectiveness of the rules can be assessed by analyzing the number of violations on speed limit (indicator 1-SO-1.1d) in the last five years, where a decreasing trend can represent effective rules.

Scoring:

- Rules on speed are in place and effective: 10 points
- Rules on speed are in place, but ineffective: 6 points
- No specific rules on speed in place: 0 point

1-SO-1.1d: Number of violations on speed limit

Definition:

Ratio of the number of violations of exceeding the speed limit to the total number of recorded traffic violations on the (inter)national roads per year. If the data for the (inter)national roads is not available, the total data in the country may be used. Please indicate this in the scoring system.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-1.1e: Effective rules on safety equipment

Definition:

The existence and effectiveness of rules on the compulsory use of safety equipment: (1) safety belts; (2) child restraint systems; and (3) helmets. The effectiveness of the rules can be assessed by analyzing the number of violations on the use of safety equipment (indicator 1-SO-1.1f) in the last five years, where a decreasing trend can represent effective rules.

Scoring:

- Rules on all three safety equipment are in place and effective: 10 points
- Rules on all three safety equipment are in place, but ineffective: 8 points
- Rules are in place for less than three safety equipment and effective: 6 points
- Rules are in place for less than three safety equipment, but ineffective: 4 points
- No specific rules on safety equipment in place: 0 point

1-SO-1.1f: Number of violations on the use of safety equipment

Definition:

Ratio of the number of violations on the compulsory use of safety equipment (safety belts, child restraint systems, and helmets), total number of recorded traffic violations on the (inter)national roads per year. If the data for the (inter)national roads is not available, the total data in the country may be used. Please indicate this in the scoring system.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-1.1g: Effective rules on cargo loading and carriage of passengers

Definition:

The existence and effectiveness of rules to strictly regulate loading of vehicles and carriage of passengers and put in place specific regulations for cargo securing for road transport and for carriage of passengers by buses and coaches. The effectiveness of the rules can be assessed by analyzing the number of violations on cargo loading and carriage of passengers on the (inter)national roads in the last five years, where a decreasing trend can represent effective rules. If the data for the (inter)national roads is not available, the total data in the country may be used. Please indicate this in the scoring system.

1-SO-1.1a: Harmonization of national laws on traffic rules

Scoring:

- Rules are in place and effective: 10 points
- Rules are in place, but ineffective: 6 points
- No specific rules on cargo loading and carriage of passengers in place: 0 point

1-SO-1.1h: Number of vehicles stopped per year

Definition:

Ratio of the number of cars and trucks that are stopped by the police per year to the total number of vehicles on the (inter)national roads per year. If the data for the (inter)national roads is not available, the total data in the country may be used. Please indicate this in the scoring system.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-1.1i: Application of special regulations for motorways and tunnels

Definition:

The existence of special traffic regulations for motorways and/or tunnels, such as prohibition of standing and parking, prohibition of reversing or making a U-turn, and the obligation to have the lights of the vehicle on in tunnels.

Scoring:

- Special regulations are in place: 10 points
- No special regulations in place: 0 point

1-SO-1.1j: Effective rules on road users distractions

Definition:

The existence and effectiveness of rules regarding distraction during driving due to use of infotainment systems, portable electronic devices or mobile phones. The effectiveness of the rules can be assessed by analyzing the number of violations of distracted driving (indicator 1-SO-1.1k) in the last five years, where a decreasing trend can represent effective rules.

Scoring:

- Rules are in place and effective: 10 points
- Rules are in place, but ineffective: 6 points

1-SO-1.1a: Harmonization of national laws on traffic rules

- No specific rules on road users distractions in place: 0 point

1-SO-1.1k: Number of violations of distracted-driving

Definition:

Ratio of the number of violations of distracted driving to the total number of recorded traffic violations on the (inter)national roads per year. If the data for the (inter)national roads is not available, the total data in the country may be used. Please indicate this in the scoring system.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-1.1l: Adequate regulations on training and examination for drivers

Definition:

The existence of adequate system that sets out minimum requirements of curriculum and qualifications of professional driving establishments (Certificate of Professional Competence), requirements for obtaining a driving permit, including contents and procedure of both theoretical and practical exams, and requirements for training and certification for driving instructors and retraining for professional drivers.

Scoring:

- Regulations are in place and fully cover the required elements: 10 points
- Regulations are in place and partially cover the required elements: 5 points
- No regulations in place: 0 point

1-SO-1.2a: Number of vehicles with tachograph

Definition:

Ratio of the number of commercial vehicles involved in international transport that are equipped with tachograph, to the total number of commercial vehicles involved in international transport in the country per year.

Scoring:

- $\text{ratio} \geq 90\%$: 10 points
- $75\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 75\%$: 6 points
- $25\% \leq \text{ratio} < 50\%$: 4 points

1-SO-1.1a: Harmonization of national laws on traffic rules

- $10\% \leq \text{ratio} < 25\%$: 2 points
- $\text{ratio} < 10\%$: 0 point

1-SO-1.2b: Number of vehicles with operational tachograph**Definition:**

Ratio of the number of vehicles involved in international transport that are equipped with operational tachographs (being used), to the total number of vehicles with tachographs involved in international transport in the country per year. The scoring can be based on:

data collected from a survey by logging the number of trucks with operational tachographs at BCPs (in fact, the BCP police may enforce technical standards upon entry); or

country's statistics on roadside inspection on driving and resting time rules, e.g. if the percentage of violations of non-operational tachographs is 5%, then the score is 10.

- Scoring:
- $\text{ratio} \geq 90\%$: 10 points
- $75\% \leq \text{ratio} < 90\%$: 8 points
- $50\% \leq \text{ratio} < 75\%$: 6 points
- $25\% \leq \text{ratio} < 50\%$: 4 points
- $10\% \leq \text{ratio} < 25\%$: 2 points
- $\text{ratio} < 10\%$: 0 point

1-SO-1.3: Development of regulations on cargo securing**Definition:**

The existence and effectiveness of regulations on cargo securing that include the standards of safety of loads on vehicles, truck loading code, etc.

Scoring:

- Regulations are in place: 10 points
- No specific regulations on cargo securing in place: 0 point

1-SO-1.4: Number of crashes due to violating the traffic rules**Definition:**

Number of crashes involving international traffic, due to violating the traffic rules per year.

1-SO-1.1a: Harmonization of national laws on traffic rules

Scoring:

- Not applicable. This is a verification indicator.

1-SO-1.5: Application of National Road Safety System

Definition:

The extent to which a National Road Safety System (NRSS) is developed based on the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS), which comprises 5 pillars: (1) Road safety management; (2) Safe user; (3) Safe vehicle; (4) Safe road; (5) Effective post-crash response.

Scoring:

- Entirely based on GFPARS: 10 points
- Partially based on GFPARS/not covering all elements: 7 points
- No NRSS in place: 0 point

1-SO-1.6: Application of Post-Crash Response

Definition:

The extent to which Post-Crash Response standards and procedures are developed based on the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS), which comprises eight actions.

Scoring:

- Entirely based on GFPARS: 10 points
 - Partially based on GFPARS/not covering all elements: 7 points
 - No NRSS in place: 0 point
-

B. 1-SO-2: Road Traffic Infrastructure

1-SO-2.1: Length of dual carriageway international roads

Definition:

Ratio of the total length of dual carriageway international roads to the total length of the international roads in the country.

Scoring:

- ratio \geq 10%: 10 points

1-SO-2.1: Length of dual carriageway international roads

- $8\% \leq \text{ratio} < 10\%$: 8 points
- $6\% \leq \text{ratio} < 8\%$: 6 points
- $4\% \leq \text{ratio} < 6\%$: 4 points
- $2\% \leq \text{ratio} < 4\%$: 2 points
- $\text{ratio} < 2\%$: 0 point

1-SO-2.2: Harmonization of international standards for road signs, signals, and marking**Definition:**

Harmonization of international standards for road signs, signals, and marking into the national legislations (e.g. Traffic Signs Regulations and Manual).

Scoring:

- Fully harmonized: 10 points
- Partially harmonized: 7 points
- Not harmonized: 4 points
- No national legislations covering road signs, signals, and marking: 0 point

1-SO-2.3: IRI rating**Definition:**

The IRI (International Roughness Index) rating for the total length of the international roads.

Scoring:

- Very good: 10 points
- Good: 8 points
- Fair: 6 points
- Poor: 4 points
- Very poor/does not exist in the country: 0 point

1-SO-2.4: Number of secured parking lots for trucks at BCPs

1-SO-2.1: Length of dual carriageway international roads

Definition:

The number of parking lots at secured parking area (in absolute number) as a percentage of the throughput of trucks in 24 hours.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-2.5: Number of incidents of cargo theft

Definition:

The number of cases of reported cargo theft per 100,000 trucks involved in trade (import and export) per year.

Scoring:

- Not applicable. This is a verification indicator.
-

C. 1-SO-3: Vehicle Regulations

1-SO-3.1: Harmonization of vehicle regulations

Definition:

Number of national vehicle regulations applied for new vehicles, which are developed in harmony with international agreements such as the UN agreements on vehicle regulations.

Scoring:

- number ≥ 100 : 8 points
- $100 \leq \text{number} < 80$: 7 points
- $80 \leq \text{number} < 60$: 5 points
- $60 \leq \text{number} < 40$: 3 points
- number < 40 : 2 point
- No regulations applied: 0 point
- Internationally harmonized vehicle regulations applied according to the most recent level of stringency: additional 2 points

1-SO-3.2: Application of periodic technical inspections

1-SO-3.1: Harmonization of vehicle regulations

Definition:

Degree of application of periodic technical inspections (PTIs) of vehicles.

Scoring:

- PTIs are enforced and applied with an increasing frequency to ageing vehicles: 8 points
- PTIs are legally binding, but no enforcement mechanism exists: 4 points
- PTIs do not exist: 0 points
- Road side inspections of commercial vehicles applied: additional 1 point
- Recognition of international inspection certificate: additional 1 point

1-SO-3.3: Vehicle registration documentation

Definition:

Degree of recognition of vehicle registration documentation applied in the country.

Scoring:

- Use of internationally recognized registration certificate: 10 points
- Use of regionally recognized registration certificate: 7 points
- Use of bilaterally recognized registration certificate: 4 points
- Use of national registration certificates, not recognized internationally, regionally nor among adjoining countries: 0 point

1-SO-3.4: Number of accidents due to technical failure

Definition:

The number of accidents, where primary cause is technical failure, per km driven.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-3.5: Number of accredited technical inspection centers

Definition:

The number of accredited technical inspection centers per million vehicles.

1-SO-3.1: Harmonization of vehicle regulations

Scoring:

- Not applicable. This is a verification indicator.
-

D. 1-SO-4: Perishable Foodstuffs Transport

1-SO-4.1: List of perishable foodstuffs and corresponding transport conditions

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the list of perishable foodstuffs and corresponding transport conditions, in the national laws and legislations.

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-4.2: Requirements for testing and approval

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the requirements for testing and approval of the special equipment used for the transport of perishable foodstuffs, in the national laws and legislations. It concerns insulated, refrigerated, mechanically refrigerated or heated equipment as set out in the ATP.

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-4.3: Requirements for classification of special equipment

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the requirements for classification of the special equipment used for the transport of perishable foodstuffs, in the national laws and legislations. It concerns distinguishing marks that are affixed to the special equipment as set out in the ATP.

1-SO-4.1: List of perishable foodstuffs and corresponding transport conditions

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-4.4: Harmonization of certificate of compliance

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the issuance of certificates and certification plates of compliance for the special equipment used for the transport of perishable foodstuffs, in the national laws and legislations.

Scoring:

- Issued in accordance with internationally agreed provisions: 10 points
- Issued in accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-4.5: Number of checks on trucks transporting perishable foodstuffs

Definition:

Ratio of the number of roadside checks conducted on trucks transporting perishable foodstuffs to the total number of trucks transporting perishable foodstuffs involved in international transport in the country per year. It concerns checks to verify whether the requirements concerning transport of perishable foodstuffs have been met.

Scoring:

- Not applicable. This is a verification indicator.
-

E. 1-SO-5: Dangerous Goods Transport – Administrative Requirements

1. 1-SO-5.1: General provisions for the transport of dangerous goods by road

1-SO-5.1a: Classification of dangerous goods for transport

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the classification of dangerous goods for transport, in the national laws and legislations.

1-SO-5.1a: Classification of dangerous goods for transport

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-5.1b: Marking and labeling of packaging

Definition:

Degree of harmonization of internationally/regionally agreed provisions on marking and labeling of packages of dangerous goods, in the national laws and legislations.

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-5.1c: Placarding and marking of containers and vehicles

Definition:

Degree of harmonization of internationally/regionally agreed provisions on placarding and marking in the national laws and legislations. It concerns placarding and marking of all types of containers and vehicles for the transport of dangerous goods.

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-5.1d: Dangerous goods transport documentation

Definition:

Degree of harmonization of internationally/regionally agreed provisions on the required documentation and information, in the national laws and legislations. It concerns documents that accompany the transport of dangerous goods.

1-SO-5.1a: Classification of dangerous goods for transport

Scoring:

- In accordance with internationally agreed provisions: 10 points
- In accordance with regionally agreed provisions: 5 points
- Not recognizing international/regional provisions or no national law applied: 0 point

1-SO-5.1e: Percentage of transport of dangerous goods

Definition:

Percentage of traffic classified as transport of dangerous goods on the international road network.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-5.2: Training of personnel involved in the transport of dangerous goods

1-SO-5.2a: Training provisions for persons involved in the transport of dangerous goods

Definition:

Degree of harmonization of international/regional legal instruments and/or recommendations in the training provisions for personnel involved in the transport of dangerous goods in the country. It concerns personnel other than the driver, e.g. vehicle crew, consignor, carrier, consignee, loader, packer, filler, tank-container/portable tank operator, and unloader.

Scoring:

- The provision is developed based on international recommendations or related legal modal instruments: 9 points
- The provision is developed based on regional arrangements: 6 points
- The provision recognizes the existing international/regional arrangements, but is not developed based on them: 3 points
- Not recognizing international/regional provisions or no training provisions in place: 0 point
- Issuance of training certificates for the transport of dangerous goods are agreed by the national competent authority or its accredited training bodies: additional 1 point

1-SO-5.2b: Harmonization of requirements to appoint safety adviser

Definition:

Degree of harmonization of international/regional provisions in the national legislations on the requirements for undertakings involved in the transport of dangerous goods related activities (which include the carriage, or the related packing, loading, filling or unloading) to appoint one or more safety adviser responsible for helping to prevent the risks for people, property or the environment inherent to such activities.

Scoring:

- The requirements are developed in accordance with internationally agreed recommendations: 10 points
- The requirements are developed in accordance with regionally agreed provisions: 5 points
- The requirements are not developed based on internationally/ regionally agreed provisions, but recognize them: 3 points
- Not recognizing international/regional provisions or no requirements: 0 point

1-SO-5.2c: Number of safety adviser training certificates issued

Definition:

Ratio of the number of safety adviser training certificates issued/renewed per year by a national competent authority or its accredited authorized body to the total number of undertakings involved in the transport of dangerous goods related activities.

Scoring:

- Not applicable. This is a verification indicator.

1-SO-5.2d: Provision of security awareness training

Definition:

Degree of harmonization of internationally/regionally agreed rules in the provision of security awareness training for persons involved in the transport of dangerous goods. The internationally agreed elements of security awareness training are set out in ADR.

Scoring:

- The provision is developed based on internationally agreed rules: 10 points
- The provision is developed based on regionally agreed rules: 5 points
- The provision is developed partially based on internationally/regionally agreed rules: 3 points
- The provision does not recognize internationally/regionally agreed rules or no training provisions in place: 0 point

1-SO-5.3: Checks and other support measures to ensure compliance with safety requirements

1-SO-5.1a: Classification of dangerous goods for transport

1-SO-5.3a: Harmonization of procedures for approvals of inspection bodies**Definition:**

Degree of harmonization of international/regional provisions in the national legislations on the procedures for approvals of inspection bodies by the competent authority. The inspection bodies carry out conformity assessments, periodic inspections, intermediate inspections, exceptional checks and surveillance of the in-house inspection service (in case of delegation of inspection tasks) for pressure receptacles.

Scoring:

- The approval procedures are developed based on internationally agreed provisions: 10 points
- The approval procedures are developed based on regionally agreed provisions: 5 points
- The approval procedures are not developed based on internationally/ regionally agreed provisions, but recognize them: 3 points
- Not recognizing international/regional provisions or no procedures in place: 0 point

1-SO-5.3b: Revocation of approval of inspection bodies**Definition:**

Revocation or restriction of the approval, given by the competent authority, to inspection bodies that are no longer in compliance with the requirements or do not follow the procedures specified in the provisions of ADR.

Scoring:

- Revocation/restriction is based on non-respect of internationally agreed rules: 10 points
- Revocation/restriction is based on non-respect of regionally agreed rules: 5 points
- Revocation/restriction is based on non-respect of national rules: 0 point

1-SO-5.3c: Availability of information on transport restrictions**Definition:**

Availability of information on transport restrictions applicable to the transport of dangerous goods.

Scoring:

- Information is publicly available and accessible for free: 10 points
- Information is available against a fee or not publicly available: 0 point

1-SO-5.3d: Requirements of security plans for transporting high consequence dangerous goods

Definition:

Degree of harmonization of internationally/regionally agreed rules in the national legislations on the requirements for adopting, implementing, complying with a security plan when transporting high consequence dangerous goods.

Scoring:

- The requirements are developed based on internationally agreed rules: 10 points
- The requirements are developed based on regionally agreed rules: 5 points
- The requirements are developed partially based on internationally/regionally agreed rules: 3 points
- The requirements are fully deviating from the internationally/regionally agreed rules or no requirements in place: 0 point

1-SO-5.3e: Reporting of occurrences involving dangerous goods

Definition:

Degree of harmonization of internationally/regionally agreed rules in the national legislations on the procedures for reporting a serious accident or incident takes place during loading, filling, carriage or unloading of dangerous goods. The report shall be made by the loader, filler, carrier or consignee, and developed based on the model prescribed by international/regional agreements.

Scoring:

- The procedures are developed based on internationally agreed rules: 10 points
- The procedures are developed based on regionally agreed rules: 5 points
- The procedures are developed partially based on internationally/regionally agreed rules: 3 points
- The procedures are fully deviating from the internationally/regionally agreed rules or no procedures in place: 0 point

1-SO-5.3f: Provisions for vehicles transporting dangerous goods

Definition:

The extent to which the carriage of dangerous goods is subject to the mandatory use of vehicles required by the international standards for the carriage of dangerous goods as regards their construction, type approval, ADR approval and annual technical inspection.

Scoring:

- Mandatory: 10 points
- Voluntary: 5 points

1-SO-5.1a: Classification of dangerous goods for transport

- Non-existing: 0 point

1-SO-5.3g: Instructions in writing in the event of emergency**Definition:**

Degree of harmonization of internationally/regionally agreed rules in the national legislations on the provision of instructions in writing, in a language understood by the crew, to be carried on board for actions to be taken in the event of an accident or emergency.

Scoring:

- The provision of instructions is developed based on internationally agreed rules: 10 points
- The provision of instructions is developed based on regionally agreed rules: 5 points
- The provision of instructions is developed partially based on internationally/regionally agreed rules: 3 points
- The provision of instructions is fully deviating from the internationally/regionally agreed rules or no provision in place: 0 point

1-SO-5.3h: Requirements for construction, testing and approval of packaging, tank and bulk containers**Definition:**

Degree of harmonization of internationally/regionally agreed provisions in the national legislations on requirements for the construction, testing and approval of packaging (all types), tank and bulk containers for the transport of dangerous goods.

Scoring:

- The requirements are developed based on internationally agreed provisions: 10 points
- The requirements are developed based on regionally agreed provisions: 5 points
- The requirements are deviating from the internationally/regionally agreed provisions or no requirements in place: 0 point

1-SO-5.4: Provisions concerning transport equipment and transport operations involving dangerous goods**1-SO-5.4a: Provisions concerning loading, unloading and handling of dangerous goods****Definition:**

Degree of harmonization of internationally/regionally agreed provisions in the national regulatory provisions concerning loading, unloading and handling of dangerous goods.

Scoring:

- The national regulatory provisions are developed based on internationally agreed provisions: 10 points

1-SO-5.1a: Classification of dangerous goods for transport

- The national regulatory provisions are developed based on regionally agreed provisions: 5 points
- The national regulatory provisions are deviating from the internationally/regionally agreed provisions or no national regulatory provisions in place: 0 point

1-SO-5.4b: Mandatory requirements concerning transport units and equipment on board

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national legislations on requirements concerning transport units and equipment on board, e.g. fire-fighting equipment and equipment for personal protection.

Scoring:

- The requirements are developed based on internationally agreed provisions: 10 points
 - The requirements are developed based on regionally agreed provisions: 5 points
 - The national legislations are deviating from the internationally/regionally agreed provisions or no national legislations in place: 0 point
-

F. 1-SO-6: Dangerous Goods Transport – Infrastructure/Hardware Requirements

1-SO-6.1: Application of tunnel categorization

Definition:

Degree of harmonization of internationally/regionally agreed rules in the national law on tunnel categorization when applying restrictions to the passage of vehicles carrying dangerous goods through tunnels. According to ADR, there are five tunnel categories that define the degree of restrictions for the carriage of dangerous goods.

Scoring:

- The applied tunnel categorization is developed based on internationally agreed rules (ADR): 10 points
- The applied tunnel categorization is developed based on regionally agreed rules: 5 points
- The applied tunnel categorization is partially developed based on internationally/regionally agreed rules: 3 points
- The applied tunnel categorization is deviating from the internationally/regionally agreed provisions or no categorization in place: 0 point

1-SO-6.2: Availability of information on tunnel categorization

1-SO-6.1: Application of tunnel categorization

Definition:

Availability of information on tunnel categorization (including road signs and signals), notifications of tunnel prohibitions/restrictions and alternative routes for transport of dangerous goods.

Scoring:

- Information is publicly available and accessible for free: 10 points
- Information is available against a fee or not publicly available: 0 point

1-SO-6.3: Requirements concerning the construction and approval of vehicles

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national law on the requirements of vehicles for the transport of dangerous goods, as regards their construction, type approval, ADR approval and annual technical inspection.

Scoring:

- The vehicles requirements are developed based on internationally agreed provisions (ADR): 10 points
- The vehicles requirements are developed based on regionally agreed provisions: 5 points
- The vehicles requirements are deviating from the internationally/regionally agreed provisions or no requirements in place: 0 point

1-SO-6.4: Harmonization of requirements to be complied with by vehicle crew

Definition:

Degree of harmonization of internationally/regionally agreed provisions in the national law on the requirements to be complied with by the vehicle crew, such as use of fire-fighting appliances, prohibition of smoking, portable lighting apparatus, running the engine during loading or unloading, and use of the parking brakes and wheel chocks.

Scoring:

- The requirements are developed based on internationally agreed provisions (ADR): 10 points
 - The requirements are developed based on regionally agreed provisions: 5 points
 - The requirements are deviating from the internationally/regionally agreed provisions or no requirements in place: 0 point
-

III. Environmental Sustainability (EV)

A. 1-EV-1: Fleet

1-EV-1.1a: Number of alternative fuel passenger cars

Definition:

Ratio of the number of alternative fuel passenger cars involved in international transport, to the total number of passenger cars involved in international transport in the country per year. Alternative fuels are defined as electric, hybrid, liquid biofuel includes biogasoline, biodiesels and other liquid biofuels, natural gas (CNG/LNG) and hydrogen/fuel cells.

Scoring:

- ratio \geq 30%: 10 points
- $20\% \leq$ ratio $<$ 30%: 8 points
- $10\% \leq$ ratio $<$ 20%: 6 points
- $5\% \leq$ ratio $<$ 10%: 3 points
- ratio $<$ 5%: 0 point

1-EV-1.1b: Number of alternative fuel buses

Definition:

Ratio of the number of alternative fuel buses involved in international transport, to the total number of buses involved in international transport in the country per year. It concerns buses carrying more than 9 passengers. Alternative fuels are defined as electric, hybrid, liquid biofuel includes biogasoline, biodiesels and other liquid biofuels, natural gas (CNG/LNG) and hydrogen/fuel cells.

Scoring:

- ratio \geq 30%: 10 points
- $20\% \leq$ ratio $<$ 30%: 8 points
- $10\% \leq$ ratio $<$ 20%: 6 points
- $5\% \leq$ ratio $<$ 10%: 3 points
- ratio $<$ 5%: 0 point

1-EV-1.1c: Number of alternative fuel trucks

1-EV-1.1a: Number of alternative fuel passenger cars

Definition:

Ratio of the number of alternative fuel trucks involved in international transport, to the total number of trucks involved in international transport in the country per year. It concerns trucks weighing more than 3.5 tons. Alternative fuels are defined as electric, hybrid, liquid biofuel includes biogasoline, biodiesels and other liquid biofuels, natural gas (CNG/LNG) and hydrogen/fuel cells.

Scoring:

- ratio \geq 30%: 10 points
- $20\% \leq$ ratio < 30%: 8 points
- $10\% \leq$ ratio < 20%: 6 points
- $5\% \leq$ ratio < 10%: 3 points
- ratio < 5%: 0 point

1-EV-1.2a: Average age of passenger cars**Definition:**

The average age of passenger cars in the country.

Scoring:

- age \leq 5 years: 10 points
- 5 years < age \leq 10 years: 7 points
- 10 years < age \leq 15 years: 4 points
- age > 15 years: 0 point

1-EV-1.2b: Average age of buses**Definition:**

The average age of buses involved in international transport. It concerns buses carrying more than 9 passengers.

Scoring:

- age \leq 5 years: 10 points
- 5 years < age \leq 10 years: 7 points
- 10 years < age \leq 15 years: 4 points

1-EV-1.1a: Number of alternative fuel passenger cars

- age > 15 years: 0 point

1-EV-1.2c: Average age of trucks

Definition:

The average age of trucks involved in international transport. It concerns trucks weighing more than 3.5 tons.

Scoring:

- age \leq 5 years: 10 points
 - 5 years < age \leq 10 years: 7 points
 - 10 years < age \leq 15 years: 4 points
 - age > 15 years: 0 point
-

B. 1-EV-2: Emission

1-EV-2.1: Level of stringency of national vehicle emission legislation

Definition:

The level of stringency of the national vehicle emission legislation concerning the minimum emission standard for new vehicles.

Scoring:

- Euro 6 (or equivalent), combined with the Real Driving Emissions (RDE) and the Worldwide Harmonized Light Vehicle Test Procedure (WLTP): 10 points
- Euro 6 (or equivalent): 8 points
- Euro 4-5 (or equivalent): 5 points
- Euro 1-3 (or equivalent): 2 points
- No emission requirements: 0 point

1-EV-2.2: CO₂ emissions

Definition:

The method used to measure CO₂ emissions from road vehicles and the application of vehicle taxation based on the measured CO₂ emission levels.

1-EV-2.1: Level of stringency of national vehicle emission legislation

Scoring:

- CO₂ emissions are measured through the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) and vehicle taxes are applicable based on the measured CO₂ emission levels: 10 points
- CO₂ emissions are measured through the New European Driving Cycle (NEDC) and vehicle taxes are applicable based on the measured CO₂ emission levels: 8 points
- CO₂ emissions are measured through the New European Driving Cycle (NEDC) or equivalent (US Environmental Protection Agency Federal Test Procedure/EPA FTP-75, Japanese JS08), but no taxation: 5 points
- No CO₂ emissions measurement and vehicle taxation: 0 point

1-EV-2.3: Noise emissions

Definition:

The application of noise regulations, restricting the amount/duration/source of noise, to reduce excessive noise levels of motor vehicles.

Scoring:

- The scoring is calculated by summing the points for each applicable category (max 10 points).
- Requirements applied to powertrain noise: 3 points
- Requirements applied to tire noise alone: 2 points; combined with wet grip: 3 points
- Requirements applied to audible warning signals (horn): 2 points
- Requirements applied to Acoustic Vehicle Alerting Systems (AVAS) for electric vehicles: 1 point
- Requirements applied to replacement silencers: 1 point

1-EV-2.4: Modal share of passenger road transport

Definition:

Ratio of the passenger kilometers performed with road transport modes to the total passenger kilometers involved in international journeys per year.

Scoring:

- ratio < 20%: 10 points
- $20\% \leq \text{ratio} < 40\%$: 8 points
- $40\% \leq \text{ratio} < 60\%$: 6 points

1-EV-2.1: Level of stringency of national vehicle emission legislation

- $60\% \leq \text{ratio} < 80\%$: 4 points
- $80\% \leq \text{ratio} < 90\%$: 2 points
- $\text{ratio} \geq 90\%$: 0 point

1-EV-2.5: Application of models to predict weather-related risks

Definition:

Degree of application of operational models/software tools to predict weather-related risks to transport infrastructure. It concerns the application of the following tiers according to the Intergovernmental Panel on Climate Change (IPCC):

tier 1: simplest method with default values;

tier 2: similar to tier 1 but with country-specific emission factor and other data;

tier 3: more complex approaches (models).

For more information, see [this link](#).

Scoring:

- Application of tier 3: 10 points
- Application of tier 2: 7 points
- Application of tier 1: 4 points
- No tool in place: 0 point

1-EV-2.6: Implementation of technical adaptation measures in road transport

Definition:

Degree of implementation of technical adaptation measures for road to project climate change impacts on road transport system and to propose adaptation options. Some examples of documents where such measures are addressed are Highways Agency Climate Change Adaptation Strategy and Framework Model (UK), Advanced Road Weather Information Systems (Canada), and Costs of Climate Change Impacts and Adaptation (France).

Scoring:

- Measures have been implemented: 10 points
 - Measures are currently being developed: 7 points
 - Measures are planned to be developed: 4 points
-

1-EV-2.1: Level of stringency of national vehicle emission legislation

- No measures planned to be developed: 0 point
-

C. 1-EV-3: Infrastructure

1-EV-3.1: Share of alternative fuel filling stations

Definition:

Ratio of the number of alternative fuel filling stations along international roads and inland stations, to the total number of fuel filling stations along international roads and inland stations. Alternative fuels are defined as electric, hybrid, liquid biofuel includes biogasoline, biodiesels and other liquid biofuels, natural gas (CNG/LNG) and hydrogen/fuel cells. Alternative fuel filling stations can be defined as alternative fuel filling points as a part of fuel filling stations.

Scoring:

- $\text{ratio} \geq 30\%$: 10 points
 - $20\% \leq \text{ratio} < 30\%$: 8 points
 - $10\% \leq \text{ratio} < 20\%$: 6 points
 - $5\% \leq \text{ratio} < 10\%$: 3 points
 - $\text{ratio} < 5\%$: 0 point
-

Annex IV

Additional indicators

The following indicators are developed to measure the preparedness of countries' transport system to handle pandemic and other emergencies related situations to ensure the continuation of cross border activities, facilitating evacuation, emergency services, relief supplies, and flow of goods.

4-EM-1: Pandemic Situation

4-EM-1.1: Protocols to deal with pandemic situation

Definition:

The existence of protocols to expedite movement of goods at BCPs in pandemic-created situations.

Scoring:

- Protocols are in place: 10 points
- No protocols in place: 0 point

4-EM-1.2: List of essential goods

Definition:

A list of essential goods, to be prioritized to cross borders, is included in the protocols, such as healthcare related goods and agricultural products.

Scoring:

- A list of essential goods is included in the protocols: 10 points
- A list of essential goods is not included in the protocols: 0 points

4-EM-1.3: Priority for essential goods

Definition:

Being part of the protocol, fast lanes/fast track treatment will be made available for trucks carrying essential goods, such as healthcare related goods (medical supplies and equipment for testing centers).

Scoring:

- Fast lanes/fast track treatment will be made available 24/7: 8 points
- Fast lanes/fast track treatment will be made available, but not 24/7: 4 points
- No fast lane available at BCPs: 0 points
- There is a bilateral cooperation on these issues with all adjoining countries: +2 points (if the country does not have a bilateral cooperation with one or some of the adjoining countries, the full 2 points should be reduced proportionally).

4-EM-1.4: Setting up crisis teams

Definition:

Setting up crisis teams to ensure the overall performance of customs tasks to improve the efficiency of border crossing activities.

Scoring:

- Crisis teams are in place: 10 points
- Crisis teams are not in place: 0 point

4-EM-1.5: Extending opening hours of BCP

Definition:

The possibility of extending the opening hours of BCPs to reduce border clearance time, in order to ensure the national supply of goods.

Scoring:

- Extension of opening hours is being part of emergency protocols: 10 points
- Extension of opening hours is not part of emergency protocols, as such not possible to implement: 0 point

4-EM-1.6: Temporary simplification of country of origin confirmation procedure

Definition:

Temporary simplification of the country of origin confirmation procedure applied to imported goods.

Scoring:

- Temporary simplification procedure is in place: 8 points

-
- Temporary simplification procedure is not in place: 0 point
 - Acceptance of electronic or paper copy of the certificate of origin : +2 points

4-EM-1.7: Import duty for healthcare related goods

Definition:

Relief from or deadline extension of import duty payment for healthcare related goods.

Scoring:

- Relief from import duty payment: 8 points
- Deadline extension of import duty payment: 4 points
- Deadline extension is not in place: 0 points
- Abolition of penalties for late duty payment: +2 points

4-EM-1.8: Temporary extension of validity of certificates

Definition:

Temporary extension of the validity of certificates, such as certificates concerning dangerous goods training, tank- and road vehicle-inspection, and boatmaster's certificates.

Scoring:

- Extension is in place: 10 points
- Extension is not in place: 0 points

4-EM-1.9: Temporary extension of validity of driving licenses

Definition:

Temporary extension of the validity of drivers' driving licenses.

Scoring:

- Extension is in place: 10 points
- Extension is not in place: 0 points

4-EM-1.10: Temporary extension of visa for seafarers

Definition:

Temporary extension of visa for seafarers who have been trapped on ships due to pandemic-created lockdown.

Scoring:

- Extension arrangements are in place: 10 points
- Extension arrangements are not in place: 0 points

4-EM-1.11: Temporary exemption from weight control**Definition:**

Temporary exemption from weight control of vehicles transporting essential goods.

Scoring:

- Temporary exemption is in place: 10 points
- Temporary exemption is not in place: 0 points

4-EM-1.12: Temporary increase of the maximum daily driving limit**Definition:**

The existence of a temporary regulation to increase the maximum daily driving limit in order to ensure the national supply of goods.

Scoring:

- Temporary regulation is in place: 10 points
- Temporary regulation is not in place: 0 points

4-EM-1.13: Temporary reduction of rest time requirements**Definition:**

The existence of a temporary regulation to reduce the drivers rest time requirements in order to ensure the national supply of goods.

Scoring:

- Temporary regulation is in place: 10 points
- Temporary regulation is not in place: 0 points

4-EM-1.14: Communication and information point at BCPs

Definition:

The existence of a communication and information point at BCPs to assist drivers and travellers during emergency situations.

Scoring:

- Available at all BCPs: 10 points
- Available at more than 50% of BCPs: 7 points
- Available at less than 50% of BCPs: 4 points
- Not available at any BCPs: 0 point

4-EM-1.15: Provision of hygienic and sanitary facilities**Definition:**

Provision of hygienic and sanitary facilities at BCPs and along international roads in order to reduce the spread of diseases.

Scoring:

- Available at all BCPs and along international roads: 8 points
- Available only at BCPs: 4 points
- Not available at any BCPs nor along international roads: 0 point
- A daily updated map showing the facilities' locations is available: +2 points

4-EM-1.16: Provision of shops selling take-away food**Definition:**

Measures to ensure a sufficient number of shops selling take-away food for drivers along international roads.

Scoring:

- Measures are in place: 8 points
- Measures are not in place: 0 points
- A daily updated map showing the shops' locations is available: +2 points

4-EM-1.17: Medical examination points**Definition:**

Setting up medical examination points at BCPs in order to check for the presence of a suspected disease.

Scoring:

- Available at all BCPs: 10 points
- Available at more than 50% of BCPs: 7 points
- Available at less than 50% of BCPs: 4 points
- Not available at any BCPs: 0 point

4-EM-1.18: Medical certificates for drivers and personnel

Definition:

Being part of the protocol, medical certificates for drivers and personnel are required before crossing borders.

Scoring:

- Medical certificates are required: 10 points
- Medical certificates are not required: 0 point

4-EM-1.19: Disinfection of rest and parking areas

Definition:

Being part of the protocol, rest and parking areas along international roads are regularly disinfected.

Scoring:

- Disinfection is in place at all rest and parking areas in the country: 10 points
 - Disinfection is in place at more than 50% of rest and parking areas in the country: 7 points
 - Disinfection is in place at less than 50% of rest and parking areas in the country: 4 points
 - Disinfection is not in place: 0 point
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4-EM-2: Natural Hazards

4-EM-2.1: Application of intelligent traffic management systems in emergency situations

Definition:

The use of electronic signaling along international roads to allow adaptation to unexpected natural hazards related situations, in terms of opening, closing or re-routing international road traffic.

Scoring:

- Systems are in place and being part of emergency protocols: 10 points
- Systems are not in place, but not yet part of emergency protocols: 5 point
- Systems are not in place: 0 point

4-EM-2.2: Redundancy of international road networks

Definition:

Ratio of the number of BCPs in the country that can be reached from more than one route, to the total number of BCPs in the country. It concerns the provision of alternative routes for travellers in the event of a disruption. Redundancy is the existence of numerous optional routes/means of transport between origins and destinations that can result in less serious consequences in case of a disturbance in some part of the system.²

Scoring:

- Ratio $\geq 75\%$: 10 points
 - $50\% \leq \text{ratio} < 75\%$: 7 points
 - $25\% \leq \text{ratio} < 50\%$: 4 points
 - ratio $< 25\%$: 0 point
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² Berdica, K., 2002. An introduction to road vulnerability: what has been done, is done and should be done. Transport Policy 9(2), 117-127.