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#### UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Subsidiary Body for Scientific and Technological Advice Fortieth session Bonn, 4–15 June 2014

Item 12(d) of the provisional agenda
Methodological issues under the Kyoto Protocol
Implications of the inclusion of reforestation of lands with forest in exhaustion
as afforestation and reforestation clean development mechanism
project activities

Views on the implications of a possible revision to the eligibility of lands as clean development mechanism afforestation and reforestation project activities during the second commitment period of the Kyoto Protocol

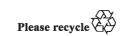
### **Submissions from Parties**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirty-eighth session, invited Parties to submit to the secretariat, by 19 February 2014, their views on the implications of a possible revision to the eligibility of lands as clean development mechanism afforestation and reforestation project activities during the second commitment period of the Kyoto Protocol. The SBSTA requested the secretariat to make the submissions available on the UNFCCC website and subsequently compile these submissions into a miscellaneous document for consideration at SBSTA 40.<sup>1</sup>

FCCC/SBSTA/2014/MISC.1

GE.14-60456







<sup>&</sup>lt;sup>1</sup> FCCC/SBSTA/2013/3, paragraphs 151 and 152.

2. The secretariat has received one such submission. In accordance with the procedure for miscellaneous documents, this submission is attached and reproduced\* in the language in which it was received and without formal editing.<sup>2</sup>

<sup>\*</sup> This submission has been electronically imported in order to make it available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the text as submitted.

reproduction of the text as submitted.

Also available at <a href="http://unfccc.int/5901.php">http://unfccc.int/5901.php</a>.

#### Submission from Brazil

Views on the implications of a possible revision to the eligibility of lands as clean development mechanism afforestation and reforestation project activities during the second commitment period of the Kyoto Protocol.

#### Submission by the Federative Republic of Brazil

Date 19/2/2014

## 1.) Context and Background:

The Government of Brazil, in response to the invitation to Parties contained in paragraph 151 of FCCC/SBSTA/2013/3, welcomes the opportunity to provide its views on a possible revision of the eligibility of lands for A/R CDM project activities for the second commitment period of the Kyoto Protocol. The Government of Brazil reinforces the need to advance discussions and reach an agreement on this issue, building on the work undertaken by SBSTA, the CDM Executive Board and its Afforestation and Reforestation Working Group, and the UNFCCC Secretariat. The present submission is an important opportunity to bring further clarification and information regarding eligibility of lands for Reforestation project activities in the second commitment period of the Kyoto Protocol, for consideration by Parties.

Increasing the eligibility of lands for Reforestation project activities under the CDM, as proposed, is deemed relevant for the following reasons:

- 1. It helps Parties not included in Annex I in achieving sustainable development and assists Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3 of the Kyoto Protocol, which are the objectives of the CDM.
- 2. It provides for multiple co-benefits in addition to the enhancement of carbon stocks, including erosion prevention, reduced pressure on natural forests and socio-economic benefits to the local communities.
- 3. It provides opportunity for a more equitable distribution of projects among developing countries and for a more significant share of A/R project activities in the total of CDM registered projects (presently limited to 49 out of 7329)<sup>1</sup>.
- 4. It reduces the potential for additional degraded land in developing countries due to the provision of incentives to reforest lands that contained planted forests in 1989 in their last harvesting cycle and have been converted to degraded land after the last harvest.<sup>2</sup>
- 5. It reduces the pressure on other land uses, including grassland or cropland, and may help restore the soil carbon pool.
- 6. It continues to be subject to the demonstration of additionality as any other project activity, so that in the absence of the CDM revenues the land would remain as degraded land.
- 7. There is no modification of any definition agreed by the Parties. The forest and the reforestation definitions remain absolutely unchanged<sup>3</sup>. The novelty in the proposal, for application in the

<sup>&</sup>lt;sup>1</sup> As of 16/10/13.

<sup>&</sup>lt;sup>2</sup> See attached table for "Trends in extent of planted forests 1990-2010", available at Annex 3 of the FAO (Food and Agriculture Organization) Global Forest Resource Assessment 2010

- second commitment period of the Kyoto Protocol, is the proposed eligibility of lands for reforestation project activities, presently undefined.
- 8. There are significant differences in the nature, scale and scope of the areas eligible to A/R CDM as proposed, and the activities referred to in paragraph 70 of Decision 1/CP.16, without prejudice to ongoing negotiations, in particular with reference to paragraph 66 of decision 2/CP.17.

## 2) Proposed way forward:

For the purposes of improving eligibility criteria of lands under Article 12 (CDM), Brazil suggests the following alternative:

• For the second commitment period, <u>the eligibility of</u> reforestation project activities <u>under Article 12</u> shall be limited to reforestation occurring on those lands that did not contain forest, or contained planted forests in their last harvesting cycle on 31 December 1989. For the latter, it shall be demonstrated that the land has been converted to degraded, non-forest land after the last harvesting of the planted forest, and remained as such thereafter.

# 3) The rationale of the proposal:

The rationale of the proposal put forward by the Government of Brazil is based on two structural points: (i) the need to have a common understanding of the definition of reforestation to be applied in the second commitment period of the KP (for both Article 3.3 and the CDM) and; (ii) the need to improve land eligibility criteria for reforestation project activities under the CDM for the 2nd Commitment Period of the Kyoto Protocol.

It is important to highlight that the land eligibility criteria for the development of reforestation project activities should not be confused with the definition of reforestation activities. The definition of the reforestation activity *per se* is very clear, as widely applicable:

 "Reforestation is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but was converted to non-forested land."

Brazil understands that the following sentence, currently presented in the same paragraph of the definition of reforestation activities, in Decision 16/CMP.1, does not address the definition of the activity of reforestation *per se*. Rather, the sentence has created a specific eligibility criterion for the consideration of reforestation activities in the first commitment period:

<sup>&</sup>lt;sup>3</sup> Dec 16/CMP.1 "Reforestation" is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land. "Forest" is a minimum area of land of 0.05–1.0 hectare with tree crown cover (or equivalent stocking level) of more than 10–30 per cent with trees with the potential to reach a minimum height of 2–5 metres at maturity in situ. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10–30 per cent or tree height of 2–5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest

• "...For the first commitment period, reforestation activities will be limited to those lands that that did not contain forest on 31 December 1989".

Although the text of Decision 2/CMP.6 indicates that the specific eligibility criterion in the definition of reforestation is limited to the 1st CP, there have been different understandings by Parties of the definition agreed for reforestation in the 2<sup>nd</sup> commitment period. Some Parties understood that "the same" in Decision 2/CMP.6 means for the 1<sup>st</sup> commitment period, while other Parties understood that "the same" meant a replacement of mention to "1<sup>st</sup> Commitment Period" by "2<sup>nd</sup> Commitment Period".

This legal uncertainty has not been resolved by the text in Decision 2/CMP.7, paragraph 18, relative to modalities and procedures for A/R under the CDM, which reads "the modalities and procedures (...) shall apply, *mutatis mutandis*, for the 2<sup>nd</sup> CP." The reference solely applies to the modalities and procedures and does not cover the definition of reforestation.

Brazil underlines its view that the definition of the reforestation activity *per se (without the specific eligibility criterion)* **shall be the same** as in the 1<sup>st</sup> Commitment Period (Decision 2/CMP.6), as presented above. Nevertheless, the maintenance of such a definition does not exclude the need to adjust the specific eligibility criterion for the purposes of Article 12 in the 2<sup>nd</sup> Commitment Period, which demands specific provisions, as stated in this submission.

Brazil, therefore, proposes the improvement of eligibility criteria for the development of Reforestation CDM Project Activities as per the text presented in the previous section. Supplementary, the proposal makes it clear that there are no changes in any other eligibility criteria or definition, including with regards to afforestation<sup>4</sup> - for the second commitment period, the eligibility of afforestation project activities under Article 12 remains the same as in the first commitment period.

This proposal builds upon the latest rounds of negotiation under this agenda item, in particular SBSTA 38 and on the concept of degraded lands as per the current tool approved by the Clean Development Mechanism Executive Board<sup>5</sup>. This option allows for the eligibility of lands that contained <u>planted forests</u> in their last harvesting cycle on 31 December 1989.

Additionally, the focus on "planted forests" already implies that direct human activity occurred in the area before 31 December 1989, and therefore the original biome no longer existed. Hence, as demanded by the proposed formulation that the condition of "planted forests" existed in the area before 31 December 1989, it would be guaranteed that no additional environmental impact in the area occurred, avoiding also the need to search for another area to implement reforestation activities.

Hence, the approach proposed is more comprehensive, addresses the concerns presented by several Parties for including a cut-off date, and is fully consistent with environmental integrity, additionality and sustainable development.

<sup>5</sup> Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (Version 01) – Annex 15 of the EB 41 Report.

<sup>&</sup>lt;sup>4</sup> Dec 16/CMP.1 "Afforestation" is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.

# Annex - Trends in extent of planted forests 1990-2010

Source: "TABLE 9 - Trends in extent of planted forests 1990-2010" available at Annex 3 of the FAO (Food and Agriculture Organization) Global Forest Resource Assessment 2010<sup>6</sup>

Trends in extent of planted forests 1990-2010

| Trends in extent of planted forests 1990-2010 | Area of | f planted | forest (1 | 000 ha) |             |       | Annual chang | ge rate |             |       |
|---|---------|-----------|-----------|---------|-------------|-------|--------------|---------|-------------|-------|
|   |         |           |           |         | 1990-200    | 0     | 2000-200     | 5       | 2005-201    | 0     |
| Country/area                                  | 1990    | 2000      | 2005      | 2010    | 1 000 ha/yr | %     | 1 000 ha/yr  | %       | 1 000 ha/yr | %     |
| Angola  | 140     | 134       | 131       | 128     | -1          | -0,44 | -1           | -0,45   | -1          | -0,46 |
| Botswana                                      | 0       | 0         | 0         | 0       | 0           | -     | 0            | -       | 0           | -     |
| Comoros                                       | 2       | 2         | 1         | 1       | 0           | 0     | n.s.         | -12,94  | 0           | 0     |
| Djibouti                                      | 0       | 0         | 0         | 0       | 0           | -     | 0            | -       | 0           | -     |
| Eritrea                                       | 10      | 21        | 28        | 34      | 1           | 7,75  | 1            | 5,67    | 1           | 3,86  |
| Ethiopia                                      | 491     | 491       | 491       | 511     | 0           | 0     | 0            | 0       | 4           | 0,80  |
| Kenya   | 238     | 212       | 202       | 197     | -3          | -1,15 | -2           | -0,96   | -1          | -0,50 |
| Lesotho                                       | 6       | 8         | 9         | 10      | n.s.        | 3,17  | n.s.         | 2,55    | n.s.        | 2,26  |
| Madagascar                                    | 231     | 272       | 290       | 415     | 4           | 1,65  | 4            | 1,29    | 25          | 7,43  |
| Malawi  | 132     | 197       | 285       | 365     | 7           | 4,09  | 18           | 7,67    | 16          | 5,07  |
| Mauritius                                     | 15      | 15        | 15        | 15      | n.s.        | -0,07 | n.s.         | -0,41   | n.s.        | 0,27  |
| Mayotte                                       | n.s.    | n.s.      | 1         | 1       | n.s.        | 4,89  | n.s.         | 11,06   | n.s.        | 7,15  |
| Mozambique                                    | 38      | 38        | 24        | 62      | 0           | 0     | -3           | -8,78   | 8           | 20,90 |
| Namibia                                       | 0       | 0         | n.s.      | n.s.    | 0           | -     | n.s.         | -       | n.s.        | 34,76 |
| Réunion                                       | 5       | 5         | 5         | 5       | 0           | 0     | 0            | 0       | 0           | 0     |
| Seychelles                                    | 5       | 5         | 5         | 5       | 0           | 0     | 0            | 0       | 0           | 0     |
| Somalia                                       | 3       | 3         | 3         | 3       | 0           | 0     | 0            | 0       | 0           | 0     |
| South Africa                                  | 1626    | 1724      | 1750      | 1763    | 10          | 0,59  | 5            | 0,30    | 3           | 0,15  |
| Swaziland                                     | 160     | 150       | 145       | 140     | -1          | -0,64 | -1           | -0,68   | -1          | -0,70 |
| Uganda  | 34      | 32        | 31        | 51      | n.s.        | -0,60 | n.s.         | -0,63   | 4           | 10,47 |

<sup>&</sup>lt;sup>6</sup> http://www.fao.org/forestry/fra/fra2010/en/

| United Republic of Tanzania      | 150  | 200  | 230  | 240  | 5    | 2,92  | 6    | 2,83  | 2    | 0,85  |
|----------------------------------|------|------|------|------|------|-------|------|-------|------|-------|
| Zambia                           | 60   | 60   | 60   | 62   | 0    | 0     | 0    | 0     | n.s. | 0,66  |
| Zimbabwe                         | 154  | 120  | 108  | 108  | -3   | -2,46 | -2   | -2,09 | 0    | 0     |
| Eastern and Southern Africa      | •    | •    | -    | -    | -    | -     | -    | -     | -    | -     |
| Algeria                          | 333  | 345  | 370  | 404  | 1    | 0,35  | 5    | 1,41  | 7    | 1,77  |
| Egypt                            | 44   | 59   | 67   | 70   | 2    | 2,98  | 2    | 2,58  | 1    | 0,88  |
| Libyan Arab Jamahiriya           | 217  | 217  | 217  | 217  | 0    | 0     | 0    | 0     | 0    | 0     |
| Mauritania                       | 5    | 13   | 17   | 21   | 1    | 10,03 | 1    | 5,51  | 1    | 4,32  |
| Morocco                          | 478  | 523  | 561  | 621  | 5    | 0,90  | 8    | 1,41  | 12   | 2,05  |
| Sudan                            | 5424 | 5639 | 5854 | 6068 | 22   | 0,39  | 43   | 0,75  | 43   | 0,72  |
| Tunisia                          | 293  | 519  | 606  | 690  | 23   | 5,88  | 17   | 3,15  | 17   | 2,63  |
| Western Sahara                   | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| Northern Africa                  | -    | -    | -    | _    | -    | _     | -    | -     | -    | -     |
| Benin                            | 10   | 13   | 15   | 19   | n.s. | 2,66  | n.s. | 2,90  | 1    | 4,84  |
| Burkina Faso                     | 7    | 58   | 78   | 109  | 5    | 24,23 | 4    | 6,26  | 6    | 6,84  |
| Burundi                          | 0    | 86   | 78   | 69   | 9    | -     | -2   | -1,93 | -2   | -2,42 |
| Cameroon                         | -    | -    | 84   | -    | _    | -     |      | -     | -    | -     |
| Cape Verde                       | 58   | 82   | 84   | 85   | 2    | 3,58  | n.s. | 0,36  | n.s. | 0,36  |
| Central African Republic         | 2    | 2    | 2    | 2    | 0    | 0     | 0    | 0     | 0    | 0     |
| Chad                             | 11   | 14   | 15   | 17   | n.s. | 2,44  | n.s. | 1,39  | n.s. | 2,53  |
| Congo                            | 51   | 51   | 51   | 75   | 0    | 0     | 0    | 0     | 5    | 8,02  |
| Côte d'Ivoire                    | 154  | 261  | 337  | 337  | 11   | 5,42  | 15   | 5,24  | 0    | 0     |
| Democratic Republic of the Congo | 56   | 57   | 57   | 59   | n.s. | 0,18  | n.s. | 0,18  | n.s. | 0,55  |
| Equatorial Guinea                | 0    | n.s. | n.s. | n.s. | n.s. | -     | 0    | 0     | 0    | 0     |
| Gabon                            | 30   | 30   | 30   | 30   | 0    | 0     | 0    | 0     | 0    | 0     |
| Gambia                           | 1    | 1    | 1    | 1    | n.s. | 0,74  | 0    | 0     | 0    | 0     |
| Ghana                            | 50   | 60   | 160  | 260  | 1    | 1,84  | 20   | 21,67 | 20   | 10,20 |
| Guinea                           | 60   | 72   | 82   | 93   | 1    | 1,84  | 2    | 2,64  | 2    | 2,55  |
| Guinea-Bissau                    | n.s. | n.s. | 1    | 1    | n.s. | 5,58  | n.s. | 7,85  | n.s. | 5,63  |
| Liberia                          | 8    | 8    | 8    | 8    | 0    | 0     | 0    | 0     | 0    | 0     |
| Mali                             | 5    | 55   | 205  | 530  | 5    | 27,10 | 30   | 30,10 | 65   | 20,92 |
| Niger                            | 48   | 73   | 110  | 148  | 3    | 4,28  | 7    | 8,55  | 8    | 6,11  |

| Nigeria                                      | 251   | 316   | 349   | 382   | 7    | 2,33  | 7    | 2,01  | 7    | 1,82  |
|--|-------|-------|-------|-------|------|-------|------|-------|------|-------|
| Rwanda                                       | 248   | 282   | 323   | 373   | 3    | 1,29  | 8    | 2,75  | 10   | 2,92  |
| Saint Helena, Ascension and Tristan da Cunha | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Sao Tome and Principe                        | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| Senegal                                      | 205   | 306   | 407   | 464   | 10   | 4,09  | 20   | 5,87  | 11   | 2,66  |
| Sierra Leone                                 | 7     | 8     | 11    | 15    | n.s. | 1,66  | 1    | 7,23  | 1    | 5,30  |
| Togo   | 24    | 34    | 38    | 42    | 1    | 3,54  | 1    | 2,25  | 1    | 2,02  |
| Western and Central Africa                   | -     | -     | -     | -     | _    | -     | -    | -     | -    | -     |
| Africa                                       | -     | -     | -     | -     | -    | -     | -    | 1     | -    | -     |
| China  | 41950 | 54394 | 67219 | 77157 | 1244 | 2,63  | 2565 | 4,33  | 1988 | 2,80  |
| Democratic People's Republic of Korea        | 1130  | 955   | 868   | 781   | -18  | -1,67 | -17  | -1,89 | -17  | -2,09 |
| Japan  | 10287 | 10331 | 10324 | 10326 | 4    | 0,04  | -1   | -0,01 | n.s. | n.s.  |
| Mongolia                                     | 25    | 76    | 116   | 145   | 5    | 11,76 | 8    | 8,83  | 6    | 4,56  |
| Republic of Korea                            | -     | 1738  | 1781  | 1823  | -    | -     | 9    | 0,49  | 8    | 0,47  |
| East Asia                                    | -     | -     | -     | -     | _    | -     | -    | -     | -    | -     |
| Bangladesh                                   | 239   | 271   | 278   | 237   | 3    | 1,26  | 1    | 0,51  | -8   | -3,14 |
| Bhutan                                       | 1     | 2     | 2     | 3     | n.s. | 7,18  | 0    | 0     | n.s. | 8,45  |
| Brunei Darussalam                            | 1     | 1     | 2     | 3     | n.s. | 6,93  | n.s. | 8,42  | n.s. | 6,51  |
| Cambodia                                     | 67    | 79    | 74    | 69    | 1    | 1,66  | -1   | -1,30 | -1   | -1,39 |
| India  | 5716  | 7167  | 9486  | 10211 | 145  | 2,29  | 464  | 5,77  | 145  | 1,48  |
| Indonesia                                    | -     | 3672  | 3699  | 3549  | -    | -     | 5    | 0,15  | -30  | -0,82 |
| Lao People's Democratic Republic             | 3     | 99    | 224   | 224   | 10   | 41,86 | 25   | 17,74 | 0    | 0     |
| Malaysia                                     | 1956  | 1659  | 1573  | 1807  | -30  | -1,63 | -17  | -1,06 | 47   | 2,81  |
| Maldives                                     | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Myanmar                                      | 394   | 696   | 849   | 988   | 30   | 5,85  | 31   | 4,05  | 28   | 3,08  |
| Nepal  | 40    | 42    | 43    | 43    | n.s. | 0,49  | n.s. | 0,47  | 0    | 0     |
| Pakistan                                     | 234   | 296   | 318   | 340   | 6    | 2,38  | 4    | 1,44  | 4    | 1,35  |
| Philippines                                  | 302   | 327   | 340   | 352   | 3    | 0,80  | 3    | 0,78  | 2    | 0,70  |
| Singapore                                    | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| Sri Lanka                                    | 242   | 221   | 195   | 185   | -2   | -0,90 | -5   | -2,47 | -2   | -1,05 |
| Thailand                                     | 2668  | 3111  | 3444  | 3986  | 44   | 1,55  | 67   | 2,05  | 108  | 2,97  |
| Timor-Leste                                  | 29    | 43    | 43    | 43    | 1    | 4,02  | 0    | 0     | 0    | 0     |

| Viet Nam                       | 967  | 2050 | 2794 | 3512 | 108  | 7,80  | 149  | 6,39  | 144  | 4,68  |
|--------------------------------|------|------|------|------|------|-------|------|-------|------|-------|
| South and South-east Asia      | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Afghanistan                    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Armenia                        | 14   | 11   | 10   | 21   | n.s. | -2,38 | n.s. | -1,89 | 2    | 16,00 |
| Azerbaijan                     | 20   | 20   | 20   | 20   | 0    | 0     | 0    | 0     | 0    | 0     |
| Bahrain                        | n.s. | n.s. | n.s. | 1    | n.s. | 5,56  | n.s. | 3,84  | n.s. | 3,26  |
| Cyprus                         | 24   | 28   | 29   | 31   | n.s. | 1,25  | n.s. | 1,33  | n.s. | 0,73  |
| Georgia                        | 54   | 60   | 61   | 184  | 1    | 1,06  | n.s. | 0,17  | 25   | 24,86 |
| Iran (Islamic Republic of)     | 844  | 844  | 844  | 844  | 0    | 0     | 0    | 0     | 0    | 0     |
| Iraq                           | 15   | 15   | 15   | 15   | 0    | 0     | 0    | 0     | 0    | 0     |
| Israel                         | 66   | 88   | 88   | 88   | 2    | 2,92  | 0    | 0     | 0    | 0     |
| Jordan                         | -    | -    | 47   | 47   | -    | =     | =    | -     | 0    | 0     |
| Kazakhstan                     | 1034 | 1056 | 909  | 901  | 2    | 0,21  | -29  | -2,95 | -2   | -0,18 |
| Kuwait                         | 3    | 5    | 6    | 6    | n.s. | 3,46  | n.s. | 2,73  | n.s. | 2,40  |
| Kyrgyzstan                     | 46   | 59   | 66   | 57   | 1    | 2,68  | 1    | 2,23  | -2   | -3,05 |
| Lebanon                        | -    | -    | 10   | 11   | -    | -     | -    | -     | n.s. | 0,78  |
| Occupied Palestinian Territory | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Oman                           | 2    | 2    | 2    | 2    | 0    | 0     | 0    | 0     | 0    | 0     |
| Qatar                          | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| Saudi Arabia                   | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| Syrian Arab Republic           | 175  | 234  | 264  | 294  | 6    | 2,98  | 6    | 2,42  | 6    | 2,16  |
| Tajikistan                     | 99   | 101  | 101  | 101  | n.s. | 0,20  | 0    | 0     | 0    | 0     |
| Turkey                         | 1778 | 2344 | 2620 | 3418 | 57   | 2,80  | 55   | 2,25  | 160  | 5,46  |
| Turkmenistan                   | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| United Arab Emirates           | 245  | 310  | 312  | 317  | 7    | 2,38  | n.s. | 0,13  | 1    | 0,34  |
| Uzbekistan                     | 203  | 464  | 594  | 635  | 26   | 8,62  | 26   | 5,06  | 8    | 1,34  |
| Yemen                          | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| Western and Central Asia       | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Asia                           | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Albania                        | 103  | 96   | 98   | 94   | -1   | -0,69 | n.s. | 0,37  | -1   | -0,87 |
| Andorra                        | -    | -    | =    | -    | -    | -     | -    | -     | -    | -     |
| Austria                        | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |

| Belarus                | 1518 | 1692 | 1757 | 1857 | 17   | 1,09  | 13  | 0,76  | 20   | 1,11  |
|------------------------|------|------|------|------|------|-------|-----|-------|------|-------|
| Belgium                | 446  | 408  | 395  | 396  | -4   | -0,89 | -3  | -0,62 | n.s. | 0,01  |
| Bosnia and Herzegovina | 1047 | 999  | 999  | 999  | -5   | -0,47 | 0   | 0     | 0    | 0     |
| Bulgaria               | 1032 | 933  | 874  | 815  | -10  | -1,00 | -12 | -1,30 | -12  | -1,39 |
| Croatia                | 92   | 81   | 76   | 70   | -1   | -1,27 | -1  | -1,27 | -1   | -1,63 |
| Czech Republic         | 2610 | 2616 | 2626 | 2635 | 1    | 0,02  | 2   | 0,08  | 2    | 0,07  |
| Denmark                | 331  | 361  | 397  | 407  | 3    | 0,87  | 7   | 1,92  | 2    | 0,50  |
| Estonia                | -    | 170  | 170  | 168  | -    | 1     | 0   | 0     | n.s. | -0,24 |
| Faroe Islands          | -    | -    | -    | -    | -    | -     | -   | -     | -    | -     |
| Finland                | 4393 | 4956 | 5904 | 5904 | 56   | 1,21  | 190 | 3,56  | 0    | 0,0   |
| France                 | 1539 | 1593 | 1608 | 1633 | 5    | 0,35  | 3   | 0,19  | 5    | 0,31  |
| Germany                | 5121 | 5283 | 5283 | 5283 | 16   | 0,31  | 0   | 0     | 0    | 0     |
| Gibraltar              | 0    | 0    | 0    | 0    | 0    | -     | 0   | -     | 0    | -     |
| Greece                 | 118  | 129  | 134  | 140  | 1    | 0,90  | 1   | 0,76  | 1    | 0,88  |
| Guernsey               | -    | -    | -    | -    | -    | -     | -   | -     | -    | -     |
| Holy See               | 0    | 0    | 0    | 0    | 0    | 1     | 0   | 1     | 0    | -     |
| Hungary                | 1453 | 1509 | 1566 | 1612 | 6    | 0,38  | 11  | 0,74  | 9    | 0,58  |
| Iceland                | 6    | 15   | 22   | 27   | 1    | 10,45 | 1   | 7,78  | 1    | 3,73  |
| Ireland                | 383  | 553  | 612  | 657  | 17   | 3,74  | 12  | 2,05  | 9    | 1,43  |
| Isle of Man            | -    | -    | -    | -    | -    | -     | -   | -     | -    | -     |
| Italy                  | 547  | 584  | 602  | 621  | 4    | 0,66  | 4   | 0,61  | 4    | 0,62  |
| Jersey                 | -    | -    | -    | -    | -    | -     | -   | -     | -    | -     |
| Latvia                 | 724  | 709  | 691  | 628  | -2   | -0,21 | -4  | -0,51 | -13  | -1,89 |
| Liechtenstein          | n.s. | n.s. | n.s. | n.s. | n.s. | 4,14  | 0   | 0     | 0    | 0     |
| Lithuania              | 411  | 461  | 491  | 521  | 5    | 1,15  | 6   | 1,27  | 6    | 1,19  |
| Luxembourg             | 28   | 28   | 28   | 28   | 0    | 0     | 0   | 0     | 0    | 0     |
| Malta                  | n.s. | n.s. | n.s. | n.s. | 0    | 0     | 0   | 0     | 0    | 0     |
| Monaco                 | 0    | 0    | 0    | 0    | 0    | -     | 0   | -     | 0    | -     |
| Montenegro             | -    | -    | -    | -    | -    | -     | -   | -     | -    | -     |
| Netherlands            | 345  | 360  | 365  | 365  | 2    | 0,43  | 1   | 0,28  | 0    | 0     |
| Norway                 | 1089 | 1325 | 1400 | 1475 | 24   | 1,98  | 15  | 1,11  | 15   | 1,05  |
| Poland                 | 8511 | 8645 | 8767 | 8889 | 13   | 0,16  | 24  | 0,28  | 24   | 0,28  |

| Portugal                                  | -     | 776   | 812   | 849   | -    | -     | 7    | 0,91 | 7    | 0,90  |
|---|-------|-------|-------|-------|------|-------|------|------|------|-------|
| Republic of Moldova                       | 1     | 1     | 1     | 2     | 0    | 0     | 0    | 0    | n.s. | 14,87 |
| Romania                                   | 1402  | 1401  | 1406  | 1446  | n.s. | -0,01 | 1    | 0,07 | 8    | 0,56  |
| Russian Federation                        | 12651 | 15360 | 16963 | 16991 | 271  | 1,96  | 320  | 2,00 | 6    | 0,03  |
| San Marino                                | 0     | 0     | 0     | 0     | 0    | -     | 0    | -    | 0    | -     |
| Serbia                                    | 39    | 39    | 39    | 180   | 0    | 0     | 0    | 0    | 28   | 35,78 |
| Slovakia                                  | 960   | 958   | 965   | 959   | n.s. | -0,02 | 1    | 0,15 | -1   | -0,12 |
| Slovenia                                  | 34    | 36    | 37    | 32    | n.s. | 0,57  | n.s. | 0,55 | -1   | -2,86 |
| Spain                                     | 2038  | 2505  | 2550  | 2680  | 47   | 2,09  | 9    | 0,36 | 26   | 1,00  |
| Svalbard and Jan Mayen Islands            | 0     | 0     | 0     | 0     | 0    | -     | 0    | -    | 0    | -     |
| Sweden                                    | 2328  | 3557  | 3613  | 3613  | 123  | 4,33  | 11   | 0,31 | 0    | 0     |
| Switzerland                               | 159   | 165   | 168   | 172   | 1    | 0,37  | 1    | 0,36 | 1    | 0,47  |
| The former Yugoslav Republic of Macedonia | 105   | 105   | 105   | 105   | 0    | 0     | 0    | 0    | 0    | 0     |
| Ukraine                                   | 4637  | 4755  | 4787  | 4846  | 12   | 0,25  | 6    | 0,13 | 12   | 0,25  |
| United Kingdom                            | 1965  | 2145  | 2189  | 2219  | 18   | 0,88  | 9    | 0,41 | 6    | 0,27  |
| Europe                                    | -     | -     | -     | -     | _    | -     | -    | -    | -    | -     |
| Anguilla                                  | -     | -     | -     | -     | -    | -     | -    | -    | -    | -     |
| Antigua and Barbuda                       | -     | -     | -     | -     | -    | -     | -    | -    | -    | -     |
| Aruba                                     | -     | -     | -     | -     | -    | -     | -    | -    | -    | -     |
| Bahamas                                   | 0     | 0     | 0     | 0     | 0    | -     | 0    | -    | 0    | -     |
| Barbados                                  | n.s.  | n.s.  | n.s.  | n.s.  | 0    | 0     | n.s. | 7,03 | n.s. | 6,54  |
| Bermuda                                   | -     | -     | -     | -     | -    | -     | =    | -    | -    | -     |
| British Virgin Islands                    | -     | -     | -     | -     | -    | -     | -    | -    | -    | -     |
| Cayman Islands                            | -     | -     | -     | -     | -    | -     | -    | -    | -    | -     |
| Cuba                                      | 347   | 342   | 388   | 486   | -1   | -0,15 | 9    | 2,56 | 20   | 4,61  |
| Dominica                                  | 0     | n.s.  | n.s.  | n.s.  | n.s. | -     | 0    | 0    | 0    | 0     |
| Dominican Republic                        | -     | -     | -     | -     | -    | -     | =    | -    | -    | -     |
| Grenada                                   | n.s.  | n.s.  | n.s.  | n.s.  | 0    | 0     | 0    | 0    | 0    | 0     |
| Guadeloupe                                | 4     | 4     | 4     | 4     | 0    | 0     | 0    | 0    | 0    | 0     |
| Haiti                                     | 12    | 20    | 24    | 28    | 1    | 5,24  | 1    | 3,71 | 1    | 3,13  |
| Jamaica                                   | 9     | 8     | 8     | 7     | n.s. | -0,82 | 0    | 0    | n.s. | -2,30 |
| Martinique                                | 2     | 2     | 2     | 2     | 0    | 0     | 0    | 0    | 0    | 0     |

| Montserrat                       | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | _     |
|----------------------------------|-------|-------|-------|-------|------|-------|------|-------|------|-------|
| Netherlands Antilles             | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Puerto Rico                      | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| Saint Kitts and Nevis            | -     | -     | -     | -     | 1    | ı     | 1    | -     | -    | -     |
| Saint Lucia                      | 1     | 1     | 1     | 1     | 0    | 0     | 0    | 0     | 0    | 0     |
| Saint Martin                     | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Saint Vincent and the Grenadines | -     | n.s.  | n.s.  | n.s.  | -    | -     | 0    | 0     | 0    | 0     |
| Saint Barthélemy                 | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| Trinidad and Tobago              | 15    | 16    | 17    | 18    | n.s. | 0,65  | n.s. | 1,22  | n.s. | 1,15  |
| Turks and Caicos Islands         | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| United States Virgin Islands     | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| Caribbean                        | -     | -     | -     | -     | _    | -     | -    | -     | -    | -     |
| Belize                           | 2     | 2     | 2     | 2     | n.s. | 0,45  | 0    | 0     | n.s. | 0,85  |
| Costa Rica                       | 295   | 203   | 222   | 241   | -9   | -3,67 | 4    | 1,78  | 4    | 1,66  |
| El Salvador                      | 10    | 13    | 14    | 15    | n.s. | 2,36  | n.s. | 2,00  | n.s. | 1,68  |
| Guatemala                        | 51    | 93    | 101   | 173   | 4    | 6,19  | 2    | 1,66  | 14   | 11,36 |
| Honduras                         | -     | -     | 0     | 0     | -    | -     | _    | -     | 0    | -     |
| Nicaragua                        | -     | -     | 74    | 74    | -    | -     | -    | -     | 0    | 0     |
| Panama                           | 13    | 44    | 62    | 79    | 3    | 13,31 | 4    | 7,12  | 3    | 5,03  |
| Central America                  | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Canada                           | 1357  | 5820  | 8048  | 8963  | 446  | 15,67 | 446  | 6,70  | 183  | 2,18  |
| Greenland                        | n.s.  | n.s.  | n.s.  | n.s.  | 0    | 0     | 0    | 0     | 0    | 0     |
| Mexico                           | 0     | 1058  | 2394  | 3203  | 106  | -     | 267  | 17,74 | 162  | 6,00  |
| Saint Pierre and Miquelon        | 0     | 0     | 0     | 0     | 0    | -     | 0    | -     | 0    | -     |
| United States of America         | 17938 | 22560 | 24425 | 25363 | 462  | 2,32  | 373  | 1,60  | 188  | 0,76  |
| North America                    | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| North and Central America        | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| American Samoa                   | -     | -     | -     | -     | -    | -     | -    | -     | -    | -     |
| Australia                        | 1023  | 1176  | 1628  | 1903  | 15   | 1,40  | 90   | 6,72  | 55   | 3,17  |
| Cook Islands                     | 1     | 1     | 1     | 1     | n.s. | 8,20  | 0    | 0     | 0    | 0     |
| Fiji                             | 92    | 130   | 153   | 177   | 4    | 3,53  | 5    | 3,31  | 5    | 2,84  |
| French Polynesia                 | -     | 9     | 9     | 10    | -    | -     | 0    | 0     | n.s. | 2,13  |

| Guam                             | -    | _    | _    | _    | _    | _     | _    | _     | _    | _     |
|----------------------------------|------|------|------|------|------|-------|------|-------|------|-------|
| Kiribati                         | 0    | 0    | 0    | 0    | 0    | _     | 0    | _     | 0    | _     |
| Marshall Islands                 | 4    | 4    | 4    | 4    | 0    | 0     | 0    | 0     | 0    | 0     |
| Micronesia (Federated States of) | 20   | 17   | 16   | 14   | n.s. | -1,60 | n.s. | -1,82 | n.s. | -2,00 |
| Nauru                            | 0    | 0    | 0    | 0    | 0    |       | 0    | ,     | 0    | -     |
| New Caledonia                    | 9    | 10   | 10   | 10   | n.s. | 0,85  | n.s. | 0,52  | n.s. | 0,57  |
| New Zealand                      | 1261 | 1809 | 1854 | 1812 | 55   | 3,67  | 9    | 0,49  | -8   | -0,46 |
| Niue                             | -    | -    | -    | n.s. | -    | -     | -    | 1     | -    | -     |
| Norfolk Island                   | -    | ı    | -    | 1    | 1    | ı     | -    | 1     | 1    | 1     |
| Northern Mariana Islands         | 24   | 23   | 22   | 22   | n.s. | -0,31 | n.s. | -0,31 | n.s. | -0,32 |
| Palau                            | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Papua New Guinea                 | 63   | 82   | 92   | 86   | 2    | 2,75  | 2    | 2,30  | -1   | -1,38 |
| Pitcairn                         | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Samoa                            | -    | 32   | 32   | 32   | -    | -     | 0    | 0     | 0    | 0     |
| Solomon Islands                  | 44   | 28   | 27   | 27   | -2   | -4,64 | n.s. | -0,51 | 0    | 0     |
| Tokelau                          | 0    | 0    | 0    | 0    | 0    | -     | 0    | -     | 0    | -     |
| Tonga                            | 1    | 1    | 1    | 1    | 0    | 0     | 0    | 0     | 0    | 0     |
| Tuvalu                           | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Vanuatu                          | -    | -    | -    | -    | -    | -     | -    | 1     | -    | -     |
| Wallis and Futuna Islands        | n.s. | n.s. | n.s. | 1    | n.s. | 6,35  | n.s. | 3,99  | n.s. | 3,33  |
| Oceania                          | -    | -    | -    | -    | -    | -     | -    | -     | -    | -     |
| Argentina                        | 766  | 1076 | 1203 | 1394 | 31   | 3,46  | 25   | 2,26  | 38   | 2,99  |
| Bolivia (Plurinational State of) | 20   | 20   | 20   | 20   | 0    | 0     | 0    | 0     | 0    | 0     |
| Brazil                           | 4984 | 5176 | 5765 | 7418 | 19   | 0,38  | 118  | 2,18  | 331  | 5,17  |
| Chile                            | 1707 | 1936 | 2063 | 2384 | 23   | 1,27  | 25   | 1,28  | 64   | 2,93  |
| Colombia                         | 137  | 255  | 330  | 405  | 12   | 6,41  | 15   | 5,29  | 15   | 4,18  |
| Ecuador                          | -    | 161  | 165  | 167  | -    | -     | 1    | 0,49  | n.s. | 0,24  |
| French Guiana                    | 1    | 1    | 1    | 1    | 0    | 0     | 0    | 0     | 0    | 0     |
| Guyana                           | -    | 0    | 0    | 0    | _    | -     | 0    | -     | 0    | -     |
| Paraguay                         | 23   | 36   | 43   | 48   | 1    | 4,58  | 1    | 3,62  | 1    | 2,22  |
| Peru                             | 263  | 715  | 754  | 993  | 45   | 10,52 | 8    | 1,07  | 48   | 5,66  |
| Suriname                         | 13   | 13   | 13   | 13   | 0    | 0     | 0    | 0     | 0    | 0     |

| Uruguay                            | 201 | 669 | 766 | 978 | 47 | 12,78 | 19 | 2,74 | 42 | 5,01 |
|------------------------------------|-----|-----|-----|-----|----|-------|----|------|----|------|
| Venezuela (Bolivarian Republic of) | -   | -   | =   | ı   | -  | ı     | ļ  | =    | 1  | -    |
| South America                      | -   | 1   | -   | -   |    | -     |    | -    |    | -    |
| World                              | -   | -   | -   | -   | -  | -     | -  | -    |    | -    |