



REPUBLIC OF BULGARIA
MINISTRY OF ENVIRONMENT AND WATER

99-00-253

11 May 2011

To
UNFCCC Secretariat
Haus Carstanjen
Martin-Luther-King-Strasse 8
53175 Bonn
Germany

Subject: Recalculation of emissions from harvested wood products (HWP) and forest management reference level of Bulgaria

Dear Sir/Madam,

I would like to inform the UNFCCC Secretariat that a minor technical error in the calculation matrix of the HWP model for Bulgaria was found. This affects the result of the projected net emission numbers. As a consequence the forest management reference level values are also affected.

In this regard, please find here enclosed new tables with the changes in the HWP values and the associated changes in the reference level estimates.

Please note that the new numbers do not affect assumptions, methodology etc., which were used to prepare the report of forest management reference level of Bulgaria, submitted to the UNFCCC in April 2011. The reference level data will be revised, and the entire report will be resubmitted later, as a follow-up of the UNFCCC review.

Encl.:

1. Recalculation of emissions from HWP and the reference level of Bulgaria.

Yours faithfully,

Evdokia Maneva

Deputy Minister of Environment and Water

Table 1 Value of proposed reference levels (Gg CO₂eq)

| Reference level* | |
|------------------|-------|
| (A) | (B) |
| -9304 | -9522 |

The contribution of HWP to the reference level of Bulgaria amounts to 0,218 Mt CO₂.

Table 2 Historic time series of amounts and share of accountable carbon Inflow to the HWP pool [in 1000t C and %]

| 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 529 | 533 | 497 | 474 | 499 | 517 | 531 | 518 | 543 | 571 | 581 | 564 | 541 | 515 | 523 | 610 | 530 |
| 99.6% | 98.5% | 95.9% | 91.7% | 89.4% | 90.9% | 89.2% | 88.2% | 89.3% | 88.7% | 88.8% | 87.7% | 87.1% | 86.7% | 87.2% | 92.3% | 88.8% |

| 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 537 | 562 | 547 | 540 | 569 | 486 | 515 | 537 | 539 | 446 | 496 | 229 | 222 | 225 | 206 | 204 | 204 |
| 88.7% | 88.6% | 86.0% | 86.4% | 88.8% | 82.6% | 85.8% | 88.9% | 93.8% | 96.6% | 94.9% | 95.1% | 100.0% | 99.9% | 99.9% | 99.9% | 99.9% |

| 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 204 | 196 | 261 | 292 | 303 | 300 | 415 | 395 | 460 | 946 | 583 | 486 |
| 100.0% | 99.2% | 96.7% | 93.9% | 97.6% | 97.6% | 97.3% | 98.4% | 98.5% | 93.2% | 93.9% | 98.2% |

Table 3 Projection of carbon Inflow to the HWP pool

| | | | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|
| Average of historic harvest (2003-2007) [in 1000m3] | 6.469 | | | | | | | | | | |
| Average HWP pool Inflow* (2003-2007) [in 1000t C] | 503 | | | | | | | | | | |
| years | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Projected harvest rate [in 1000m3] | 6237.08 | 6190.69 | 6144.3 | 6097.91 | 6051.51 | 6005.12 | 5959 | 5912 | 5866 | 5820 | 5773.16 |
| Change as cp to historic harvest (2003-2007) [in %] | -3.59% | -4.30% | -5.02% | -5.74% | -6.45% | -7.17% | -7.89% | -8.61% | -9.32% | -10.04% | -10.76% |
| Projected carbon Inflow to HWP pool [in 1000t C] | 485.325 | 481.715 | 478.105 | 474.495 | 470.885 | 467.275 | 463.665 | 460.055 | 456.445 | 452.8353 | 449.2254 |
| Projected harvest rate [in 1000m3] | 6237.08 | 6190.69 | 6144.3 | 6097.91 | 6051.51 | 6005.12 | 5959 | 5912 | 5866 | 5820 | 5773.16 |

*a similar approach was chosen by Kangas and Baudin (2003): ECE/TIM/DP/30

Table 4 Historic (up to 2009) and projected net-emissions from HWP pool [in 1000t CO2]

| | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| 68 | -71 | 947 | 963 | 942 | 1004 | 998 | 982 | 965 | 970 | 709 | 586 | 544 | 555 | 168 | 300 | 101 |
| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| -1622 | -241 | 258 | 139 | 157 | 171 | 184 | 196 | 206 | 215 | 224 | 232 | 239 | 246 | | | |