**BR CTF submission workbook**

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| Submission Year | 2016 | Party | CANADA |
| Submission Version | v2.0 | Submission Level | Submitted |
| Submission Key | CAN_2016_V2.0 | Submission Status | Closed |
| Submitted By | Hilary Hove | Workbook Created | 20.09.2016 11:12:32 |
| Submitted Date | 20.09.2016 11:11:54 | | |

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Table 1 CAN_BR2_v2.0

**Emission trends: summary** [(1)]

**(Sheet 1 of 3)**

| *GREENHOUSE GAS EMISSIONS* | Base year[a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt $CO_2$ eq* | | | | | | | | |
| $CO_2$ emissions without net $CO_2$ from LULUCF | 462,702.71 | 462,702.71 | 453,498.18 | 467,864.87 | 466,684.63 | 481,507.00 | 494,406.83 | 510,072.08 | 524,428.83 |
| $CO_2$ emissions with net $CO_2$ from LULUCF | 368,639.71 | 368,639.71 | 387,776.77 | 359,029.15 | 408,401.43 | 431,741.01 | 646,715.37 | 461,989.36 | 432,725.24 |
| $CH_4$ emissions without $CH_4$ from LULUCF | 96,036.07 | 96,036.07 | 98,130.24 | 102,654.13 | 106,168.57 | 109,962.65 | 114,050.84 | 117,719.32 | 119,651.40 |
| $CH_4$ emissions with $CH_4$ from LULUCF | 100,468.83 | 100,468.83 | 105,387.33 | 106,049.75 | 113,131.67 | 117,890.97 | 137,940.01 | 124,156.74 | 122,450.10 |
| $N_2O$ emissions without $N_2O$ from LULUCF | 42,257.75 | 42,257.75 | 41,089.46 | 41,493.96 | 42,151.86 | 45,195.78 | 45,771.34 | 47,930.25 | 46,727.64 |
| $N_2O$ emissions with $N_2O$ from LULUCF | 44,388.60 | 44,388.60 | 44,586.56 | 43,010.50 | 45,577.97 | 49,028.99 | 57,699.61 | 51,079.11 | 48,049.04 |
| HFCs | 970.58 | 970.58 | 1,056.72 | 829.84 | NO, NA | NO, NA | 955.34 | 1,427.94 | 1,858.90 |
| PFCs | 7,557.90 | 7,557.90 | 8,033.12 | 7,578.69 | 7,455.59 | 6,895.02 | 6,349.22 | 6,502.75 | 6,374.91 |
| Unspecified mix of HFCs and PFCs | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| $SF_6$ | 3,227.36 | 3,227.36 | 3,686.67 | 2,558.55 | 2,374.98 | 2,443.17 | 2,276.59 | 1,769.63 | 1,828.60 |
| NF3 | 0.32 | 0.32 | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 |
| **Total (without LULUCF)** | 612,752.70 | 612,752.70 | 605,494.71 | 622,980.34 | 624,835.93 | 646,003.92 | 663,810.45 | 685,422.25 | 700,870.55 |
| **Total (with LULUCF)** | 525,253.32 | 525,253.32 | 550,527.49 | 519,056.78 | 576,941.94 | 607,999.46 | 851,936.43 | 646,925.81 | 613,287.06 |
| **Total (without LULUCF, with indirect)** | 612,752.70 | 612,752.70 | 605,494.71 | 622,980.34 | 624,835.93 | 646,003.92 | 663,810.45 | 685,422.25 | 700,870.55 |
| **Total (with LULUCF, with indirect)** | 525,253.32 | 525,253.32 | 550,527.49 | 519,056.78 | 576,941.94 | 607,999.46 | 851,936.43 | 646,925.81 | 613,287.06 |

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | Base year[a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt $CO_2$ eq* | | | | | | | | |
| 1. Energy | 484,635.65 | 484,635.65 | 475,563.92 | 493,409.01 | 494,587.51 | 511,873.44 | 526,275.15 | 544,172.80 | 559,598.35 |
| 2. Industrial processes and product use | 55,094.73 | 55,094.73 | 56,569.51 | 54,371.07 | 53,434.08 | 55,010.01 | 56,322.04 | 58,869.88 | 58,732.15 |
| 3. Agriculture | 49,086.45 | 49,086.45 | 48,930.69 | 50,403.05 | 51,636.03 | 53,745.55 | 55,794.35 | 57,087.65 | 56,991.81 |
| 4. Land Use, Land-Use Change and Forestry[b] | -87,499.38 | -87,499.38 | -54,967.22 | -103,923.56 | -47,893.99 | -38,004.46 | 188,125.98 | -38,496.44 | -87,583.49 |
| 5. Waste | 23,935.86 | 23,935.86 | 24,430.59 | 24,797.21 | 25,178.31 | 25,374.92 | 25,418.90 | 25,291.92 | 25,548.24 |
| 6. Other | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total (including LULUCF)** | 525,253.32 | 525,253.32 | 550,527.49 | 519,056.78 | 576,941.94 | 607,999.46 | 851,936.43 | 646,925.81 | 613,287.06 |

**Note:** All footnotes for this table are given on sheet 3.

[1] The common tabular format will be revised, in accordance with relevant decisions of the Conference of the Parties and, where applicable, with decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol."

Table 1 CAN_BR2_v2.0

**Emission trends: summary** [1]
**(Sheet 2 of 3)**

| *GREENHOUSE GAS EMISSIONS* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| $CO_2$ emissions without net $CO_2$ from LULUCF | 533,670.20 | 549,481.00 | 572,023.14 | 565,273.68 | 570,754.80 | 588,171.95 | 586,512.72 | 580,185.81 | 574,759.59 | 597,897.60 |
| $CO_2$ emissions with net $CO_2$ from LULUCF | 627,925.79 | 524,738.40 | 491,665.18 | 485,660.74 | 651,736.62 | 594,176.57 | 665,817.03 | 585,500.95 | 601,963.09 | 616,503.14 |
| $CH_4$ emissions without $CH_4$ from LULUCF | 121,366.84 | 121,180.34 | 121,274.74 | 120,354.40 | 118,171.84 | 117,222.80 | 117,789.59 | 116,931.31 | 116,130.69 | 113,867.32 |
| $CH_4$ emissions with $CH_4$ from LULUCF | 141,307.25 | 129,522.97 | 123,876.41 | 124,862.11 | 135,656.44 | 128,952.17 | 132,691.82 | 124,412.77 | 125,967.45 | 122,338.72 |
| $N_2O$ emissions without $N_2O$ from LULUCF | 42,707.58 | 40,464.06 | 40,106.95 | 38,605.27 | 38,274.78 | 40,178.47 | 42,565.00 | 41,391.55 | 39,334.16 | 40,314.54 |
| $N_2O$ emissions with $N_2O$ from LULUCF | 52,611.07 | 44,537.77 | 41,263.78 | 40,721.78 | 46,886.28 | 45,881.83 | 49,906.23 | 45,019.36 | 44,097.19 | 44,501.32 |
| HFCs | 2,428.78 | 2,990.20 | 3,587.94 | 3,910.03 | 4,374.59 | 4,690.86 | 4,974.06 | 5,264.86 | 5,359.02 | 5,432.14 |
| PFCs | 6,477.23 | 5,371.79 | 4,985.57 | 4,048.63 | 3,463.01 | 3,490.09 | 3,522.39 | 3,839.27 | 2,986.04 | 2,534.66 |
| Unspecified mix of HFCs and PFCs | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| $SF_6$ | 2,357.71 | 2,411.40 | 2,904.60 | 2,558.20 | 3,016.90 | 2,652.53 | 2,339.91 | 1,417.36 | 1,526.74 | 726.19 |
| NF3 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.19 | 0.18 |
| **Total (without LULUCF)** | 709,008.60 | 721,899.03 | 744,883.18 | 734,750.43 | 738,056.15 | 756,406.91 | 757,703.88 | 749,030.35 | 740,096.41 | 760,772.64 |
| **Total (with LULUCF)** | 833,108.09 | 709,572.78 | 668,283.72 | 661,761.72 | 845,134.07 | 779,844.26 | 859,251.64 | 765,454.76 | 781,899.71 | 792,036.36 |
| **Total (without LULUCF, with indirect)** | 709,008.60 | 721,899.03 | 744,883.18 | 734,750.43 | 738,056.15 | 756,406.91 | 757,703.88 | 749,030.35 | 740,096.41 | 760,772.64 |
| **Total (with LULUCF, with indirect)** | 833,108.09 | 709,572.78 | 668,283.72 | 661,761.72 | 845,134.07 | 779,844.26 | 859,251.64 | 765,454.76 | 781,899.71 | 792,036.36 |

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Energy | 569,766.97 | 584,223.16 | 606,394.46 | 598,609.54 | 599,623.37 | 613,916.31 | 609,046.20 | 600,535.34 | 591,348.73 | 614,129.79 |
| 2. Industrial processes and product use | 55,804.19 | 53,480.67 | 53,454.45 | 51,538.97 | 53,877.69 | 55,606.41 | 59,686.97 | 58,815.94 | 59,496.15 | 58,116.46 |
| 3. Agriculture | 57,506.65 | 57,911.27 | 58,593.88 | 58,063.90 | 57,529.52 | 59,523.07 | 61,177.63 | 61,547.02 | 60,598.69 | 60,314.10 |
| 4. Land Use, Land-Use Change and Forestry[b] | 124,099.49 | -12,326.25 | -76,599.46 | -72,988.71 | 107,077.92 | 23,437.35 | 101,547.76 | 16,424.41 | 41,803.30 | 31,263.71 |
| 5. Waste | 25,930.79 | 26,283.93 | 26,440.39 | 26,538.02 | 27,025.57 | 27,361.12 | 27,793.08 | 28,132.05 | 28,652.84 | 28,212.30 |
| 6. Other | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total (including LULUCF)** | 833,108.09 | 709,572.78 | 668,283.72 | 661,761.72 | 845,134.07 | 779,844.26 | 859,251.64 | 765,454.76 | 781,899.71 | 792,036.36 |

**Note:** All footnotes for this table are given on sheet 3.

Table 1 CAN_BR2_v2.0

**Emission trends: summary** [(1)]

**(Sheet 3 of 3)**

| *GREENHOUSE GAS EMISSIONS* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | (%) |
| $CO_2$ emissions without net $CO_2$ from LULUCF | 579,181.34 | 544,633.97 | 556,400.64 | 558,944.05 | 562,009.30 | 569,657.26 | 23.12 |
| $CO_2$ emissions with net $CO_2$ from LULUCF | 555,108.41 | 526,303.56 | 618,936.94 | 621,914.98 | 604,502.28 | 545,237.13 | 47.91 |
| $CH_4$ emissions without $CH_4$ from LULUCF | 111,198.45 | 107,126.51 | 104,186.05 | 104,164.21 | 105,369.62 | 106,758.44 | 11.16 |
| $CH_4$ emissions with $CH_4$ from LULUCF | 116,378.89 | 114,146.73 | 116,778.16 | 117,032.39 | 117,250.60 | 113,053.92 | 12.53 |
| $N_2O$ emissions without $N_2O$ from LULUCF | 42,334.17 | 38,245.51 | 38,407.69 | 38,113.05 | 39,449.27 | 41,183.13 | -2.54 |
| $N_2O$ emissions with $N_2O$ from LULUCF | 44,863.48 | 41,699.38 | 44,660.45 | 44,476.60 | 45,168.33 | 44,234.28 | -0.35 |
| HFCs | 5,517.44 | 5,655.63 | 5,745.55 | 5,924.14 | 6,156.05 | 6,401.74 | 559.58 |
| PFCs | 2,601.87 | 2,510.73 | 1,859.18 | 1,687.38 | 1,798.64 | 1,617.10 | -78.60 |
| Unspecified mix of HFCs and PFCs | NA | NA | NA | NA | NA | NA | |
| $SF_6$ | 644.35 | 373.87 | 438.86 | 395.47 | 437.23 | 432.84 | -86.59 |
| NF3 | 0.17 | 0.16 | 0.15 | 0.15 | 0.15 | 0.15 | -53.45 |
| **Total (without LULUCF)** | 741,477.79 | 698,546.37 | 707,038.12 | 709,228.45 | 715,220.26 | 726,050.66 | 18.49 |
| **Total (with LULUCF)** | 725,114.61 | 690,690.05 | 788,419.30 | 791,431.12 | 775,313.29 | 710,977.17 | 35.36 |
| **Total (without LULUCF, with indirect)** | 741,477.79 | 698,546.37 | 707,038.12 | 709,228.45 | 715,220.26 | 726,050.66 | 18.49 |
| **Total (with LULUCF, with indirect)** | 725,114.61 | 690,690.05 | 788,419.30 | 791,431.12 | 775,313.29 | 710,977.17 | 35.36 |

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | (%) |
| 1. Energy | 595,912.77 | 563,393.09 | 572,768.11 | 575,934.90 | 576,541.65 | 588,014.48 | 21.33 |
| 2. Industrial processes and product use | 57,017.08 | 49,078.50 | 50,737.80 | 50,886.24 | 55,022.15 | 52,198.52 | -5.26 |
| 3. Agriculture | 60,511.11 | 57,879.98 | 56,888.69 | 56,032.87 | 58,048.43 | 60,497.43 | 23.25 |
| 4. Land Use, Land-Use Change and Forestry[b] | -16,363.18 | -7,856.32 | 81,381.18 | 82,202.67 | 60,093.03 | -15,073.50 | -82.77 |
| 5. Waste | 28,036.82 | 28,194.80 | 26,643.52 | 26,374.44 | 25,608.02 | 25,340.24 | 5.87 |
| 6. Other | NA | NA | NA | NA | NA | NA | |
| **Total (including LULUCF)** | 725,114.61 | 690,690.05 | 788,419.30 | 791,431.12 | 775,313.29 | 710,977.17 | 35.36 |

*Notes*:

(1) Further detailed information could be found in the common reporting format tables of the Party's greenhouse gas inventory, namely "Emission trends ($CO_2$)", "Emission trends ($CH_4$)", "Emission trends ($N_2O$)" and "Emission trends (HFCs, PFCs and $SF_6$)", which is included in an annex to this biennial report.

(2) 2011 is the latest reported inventory year.

(3) 1 kt $CO_2$ eq equals 1 Gg $CO_2$ eq.

*Abbreviation:* LULUCF = land use, land-use change and forestry.

[a] The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

[b] Includes net $CO_2$, $CH_4$ and $N_2O$ from LULUCF.

***Custom Footnotes***

Table 1 (a) CAN_BR2_v2.0

**Emission trends ($CO_2$)**

**(Sheet 1 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *Base year* [a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt* | | | | | | | | |
| **1. Energy** | 429,254.82 | 429,254.82 | 418,993.49 | 433,598.35 | 431,379.68 | 445,669.83 | 457,192.46 | 471,303.27 | 484,519.17 |
| A. Fuel combustion (sectoral approach) | 417,648.61 | 417,648.61 | 407,709.86 | 421,421.80 | 418,551.73 | 431,334.10 | 442,312.74 | 455,264.69 | 468,280.16 |
| 1. Energy industries | 143,179.46 | 143,179.46 | 142,237.04 | 151,125.99 | 142,477.99 | 145,032.95 | 149,702.97 | 150,811.54 | 160,142.86 |
| 2. Manufacturing industries and construction | 64,269.40 | 64,269.40 | 60,611.12 | 59,576.32 | 59,523.49 | 63,140.08 | 65,145.82 | 67,524.78 | 68,434.86 |
| 3. Transport | 140,823.52 | 140,823.52 | 136,016.42 | 139,616.04 | 142,695.46 | 149,659.72 | 153,447.45 | 157,419.54 | 163,070.04 |
| 4. Other sectors | 69,205.06 | 69,205.06 | 68,684.81 | 70,941.83 | 73,718.24 | 73,361.32 | 73,879.00 | 79,369.22 | 76,491.30 |
| 5. Other | 171.18 | 171.18 | 160.46 | 161.62 | 136.55 | 140.02 | 137.49 | 139.62 | 141.09 |
| B. Fugitive emissions from fuels | 11,606.21 | 11,606.21 | 11,283.63 | 12,176.55 | 12,827.95 | 14,335.74 | 14,879.72 | 16,038.57 | 16,239.01 |
| 1. Solid fuels | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| 2. Oil and natural gas and other emissions from energy production | 11,606.21 | 11,606.21 | 11,283.63 | 12,176.55 | 12,827.95 | 14,335.74 | 14,879.72 | 16,038.57 | 16,239.01 |
| C. CO2 transport and storage | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **2. Industrial processes** | 31,757.54 | 31,757.54 | 32,875.94 | 32,544.50 | 33,595.67 | 33,923.52 | 35,147.54 | 36,756.08 | 37,815.84 |
| A. Mineral industry | 8,716.66 | 8,716.66 | 7,761.66 | 7,500.54 | 7,433.07 | 8,494.32 | 9,211.25 | 8,941.02 | 9,587.64 |
| B. Chemical industry | 2,773.73 | 2,773.73 | 2,754.75 | 2,495.13 | 2,922.35 | 3,032.45 | 2,935.85 | 2,804.22 | 2,799.71 |
| C. Metal industry | 12,907.61 | 12,907.61 | 15,070.20 | 15,456.01 | 15,686.32 | 14,662.53 | 14,974.75 | 15,019.57 | 14,897.82 |
| D. Non-energy products from fuels and solvent use | 7,359.53 | 7,359.53 | 7,289.32 | 7,092.82 | 7,553.93 | 7,734.23 | 8,025.69 | 9,991.27 | 10,530.68 |
| E. Electronic industry | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | |
| G. Other product manufacture and use | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| H. Other | | | | | | | | | |
| **3. Agriculture** | 1,183.09 | 1,183.09 | 1,123.54 | 1,194.89 | 1,185.36 | 1,368.01 | 1,491.31 | 1,476.49 | 1,589.68 |
| A. Enteric fermentation | | | | | | | | | |
| B. Manure management | | | | | | | | | |
| C. Rice cultivation | | | | | | | | | |
| D. Agricultural soils | | | | | | | | | |
| E. Prescribed burning of savannas | | | | | | | | | |
| F. Field burning of agricultural residues | | | | | | | | | |
| G. Liming | 377.52 | 377.52 | 373.12 | 381.48 | 360.65 | 446.36 | 482.61 | 414.33 | 471.12 |
| H. Urea application | 753.87 | 753.87 | 699.60 | 764.13 | 775.87 | 865.33 | 957.00 | 1,007.60 | 1,056.73 |
| I. Other carbon-containing fertilizers | 51.70 | 51.70 | 50.82 | 49.28 | 48.84 | 56.32 | 51.70 | 54.56 | 61.82 |
| J. Other | | | | | | | | | |
| **4. Land Use, Land-Use Change and Forestry** | -94,063.00 | -94,063.00 | -65,721.41 | -108,835.72 | -58,283.20 | -49,765.99 | 152,308.55 | -48,082.72 | -91,703.59 |
| A. Forest land | -254,239.17 | -254,239.17 | -226,057.66 | -276,763.86 | -230,408.23 | -224,588.49 | -25,574.50 | -218,302.44 | -261,090.29 |
| B. Cropland | 9,840.37 | 9,840.37 | 8,860.62 | 7,690.50 | 6,295.94 | 5,100.09 | 4,028.68 | 2,897.14 | 1,646.30 |
| C. Grassland | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| D. Wetlands | 5,915.40 | 5,915.40 | 5,855.82 | 5,773.65 | 6,190.32 | 4,016.20 | 4,001.44 | 3,961.89 | 4,122.10 |
| E. Settlements | 4,055.16 | 4,055.16 | 4,020.44 | 3,837.00 | 3,673.71 | 3,512.39 | 3,380.50 | 3,311.05 | 3,300.24 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | 140,365.24 | 140,365.24 | 141,599.37 | 150,626.99 | 155,965.07 | 162,193.82 | 166,472.42 | 160,049.64 | 160,318.06 |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 507.26 | 507.26 | 505.22 | 527.13 | 523.92 | 545.63 | 575.52 | 536.25 | 504.14 |
| A. Solid waste disposal | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| B. Biological treatment of solid waste | | | | | | | | | |
| C. Incineration and open burning of waste | 507.26 | 507.26 | 505.22 | 527.13 | 523.92 | 545.63 | 575.52 | 536.25 | 504.14 |
| D. Waste water treatment and discharge | | | | | | | | | |
| E. Other | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Memo items:** | | | | | | | | | |
| **International bunkers** | 9,133.74 | 9,133.74 | 8,685.10 | 9,135.49 | 8,601.21 | 9,333.89 | 9,979.74 | 11,063.80 | 11,290.21 |
| Aviation | 6,100.50 | 6,100.50 | 5,543.66 | 5,907.43 | 5,722.89 | 6,096.09 | 6,617.76 | 7,933.51 | 8,197.47 |
| Navigation | 3,033.24 | 3,033.24 | 3,141.43 | 3,228.06 | 2,878.33 | 3,237.80 | 3,361.98 | 3,130.29 | 3,092.74 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | 53,494.76 | 53,494.76 | 52,842.04 | 52,090.67 | 53,194.82 | 58,304.50 | 56,903.25 | 55,306.42 | 55,183.92 |
| **CO2 captured** | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **Long-term storage of C in waste disposal sites** | NE | NE | NE | NE | NE | NE | NE | NE | NE |
| **Indirect N2O** | | | | | | | | | |
| **Indirect CO2 (3)** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| **Total CO2 equivalent emissions without land use, land-use change and forestry** | 612,752.70 | 612,752.70 | 605,494.71 | 622,980.34 | 624,835.93 | 646,003.92 | 663,810.45 | 685,422.25 | 700,870.55 |
| **Total CO2 equivalent emissions with land use, land-use change and forestry** | 525,253.32 | 525,253.32 | 550,527.49 | 519,056.78 | 576,941.94 | 607,999.46 | 851,936.43 | 646,925.81 | 613,287.06 |
| **Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry** | | | | | | | | | |
| **Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry** | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1 (a)

CAN_BR2_v2.0

**Emission trends ($CO_2$)**

**(Sheet 2 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1. Energy** | 493,301.42 | 508,068.93 | 530,486.70 | 524,831.49 | 528,583.09 | 544,159.59 | 540,361.18 | 534,192.07 | 525,955.79 | 549,207.68 |
| A. Fuel combustion (sectoral approach) | 475,566.65 | 491,829.36 | 514,254.36 | 509,189.05 | 512,953.13 | 528,189.31 | 524,787.41 | 519,287.90 | 510,362.59 | 534,530.82 |
| 1. Energy industries | 175,978.05 | 183,987.97 | 195,744.48 | 200,242.98 | 197,841.21 | 202,374.66 | 196,150.54 | 189,607.78 | 185,053.61 | 191,641.23 |
| 2. Manufacturing industries and construction | 64,572.27 | 65,352.31 | 68,700.36 | 64,447.90 | 65,839.48 | 68,055.42 | 68,855.73 | 68,410.84 | 69,032.62 | 77,143.43 |
| 3. Transport | 166,436.84 | 170,501.31 | 171,597.11 | 170,024.85 | 171,335.55 | 176,257.73 | 181,190.72 | 185,302.11 | 185,125.44 | 188,722.75 |
| 4. Other sectors | 68,469.37 | 71,898.18 | 78,077.02 | 74,386.66 | 77,843.44 | 81,413.04 | 78,504.83 | 75,874.01 | 71,040.79 | 76,889.53 |
| 5. Other | 110.11 | 89.59 | 135.39 | 86.68 | 93.46 | 88.47 | 85.60 | 93.15 | 110.13 | 133.87 |
| B. Fugitive emissions from fuels | 17,734.77 | 16,239.57 | 16,232.25 | 15,642.35 | 15,629.88 | 15,970.20 | 15,573.68 | 14,904.08 | 15,593.11 | 14,676.77 |
| 1. Solid fuels | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| 2. Oil and natural gas and other emissions from energy production | 17,734.77 | 16,239.57 | 16,232.25 | 15,642.35 | 15,629.88 | 15,970.20 | 15,573.68 | 14,904.08 | 15,593.11 | 14,676.77 |
| C. CO2 transport and storage | NO | NO | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| **2. Industrial processes** | 38,183.76 | 39,392.82 | 39,376.81 | 38,494.16 | 40,128.11 | 41,977.69 | 44,183.14 | 44,083.76 | 46,862.32 | 46,489.27 |
| A. Mineral industry | 9,718.72 | 9,940.24 | 10,249.67 | 9,571.57 | 9,758.55 | 9,785.62 | 10,268.50 | 10,316.90 | 10,346.87 | 10,187.15 |
| B. Chemical industry | 3,101.71 | 3,000.69 | 2,957.33 | 2,600.72 | 2,628.26 | 2,630.78 | 2,930.06 | 2,707.35 | 2,782.98 | 2,574.83 |
| C. Metal industry | 15,177.11 | 15,413.50 | 15,418.23 | 14,839.09 | 14,859.49 | 14,938.99 | 14,770.58 | 15,053.40 | 16,298.18 | 16,195.92 |
| D. Non-energy products from fuels and solvent use | 10,186.23 | 11,038.40 | 10,751.59 | 11,482.79 | 12,881.81 | 14,622.31 | 16,214.00 | 16,006.12 | 17,434.29 | 17,531.37 |
| E. Electronic industry | | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | | |
| G. Other product manufacture and use | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| H. Other | | | | | | | | | | |
| **3. Agriculture** | 1,652.59 | 1,536.18 | 1,626.46 | 1,396.48 | 1,515.49 | 1,570.94 | 1,472.32 | 1,417.26 | 1,462.66 | 1,740.25 |
| A. Enteric fermentation | | | | | | | | | | |
| B. Manure management | | | | | | | | | | |
| C. Rice cultivation | | | | | | | | | | |
| D. Agricultural soils | | | | | | | | | | |
| E. Prescribed burning of savannas | | | | | | | | | | |
| F. Field burning of agricultural residues | | | | | | | | | | |
| G. Liming | 461.37 | 427.82 | 460.39 | 335.78 | 323.82 | 296.55 | 235.56 | 179.91 | 208.07 | 212.06 |
| H. Urea application | 1,147.67 | 1,064.80 | 1,113.93 | 1,019.33 | 1,147.67 | 1,149.87 | 1,116.87 | 1,116.13 | 1,097.07 | 1,355.93 |
| I. Other carbon-containing fertilizers | 43.56 | 43.56 | 52.14 | 41.36 | 44.00 | 124.52 | 119.90 | 121.22 | 157.52 | 172.26 |
| J. Other | | | | | | | | | | |
| **4. Land Use, Land-Use Change and Forestry** | 94,255.59 | -24,742.59 | -80,357.96 | -79,612.93 | 80,981.82 | 6,004.62 | 79,304.30 | 5,315.14 | 27,203.51 | 18,605.53 |
| A. Forest land | -69,302.14 | -193,450.05 | -253,987.78 | -233,856.68 | -80,969.56 | -137,334.64 | -84,257.74 | -152,918.89 | -117,070.49 | -120,079.91 |
| B. Cropland | 297.93 | -988.80 | -2,324.37 | -3,163.73 | -4,810.31 | -6,200.90 | -7,381.97 | -8,640.23 | -9,792.84 | -9,430.71 |
| C. Grassland | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| D. Wetlands | 4,435.13 | 4,754.66 | 4,329.76 | 4,265.38 | 4,239.76 | 4,044.21 | 4,195.33 | 4,213.21 | 4,134.37 | 4,008.78 |
| E. Settlements | 3,396.36 | 3,465.85 | 3,417.44 | 3,499.06 | 3,642.19 | 3,740.16 | 3,843.63 | 3,956.50 | 4,229.75 | 4,383.43 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | 155,428.31 | 161,475.74 | 168,206.99 | 149,643.04 | 158,879.74 | 141,755.79 | 162,905.05 | 158,704.54 | 145,702.72 | 139,723.94 |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 532.43 | 483.06 | 533.17 | 551.55 | 528.11 | 463.73 | 496.08 | 492.71 | 478.82 | 460.40 |
| A. Solid waste disposal | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| B. Biological treatment of solid waste | | | | | | | | | | |
| C. Incineration and open burning of waste | 532.43 | 483.06 | 533.17 | 551.55 | 528.11 | 463.73 | 496.08 | 492.71 | 478.82 | 460.40 |
| D. Waste water treatment and discharge | | | | | | | | | | |
| E. Other | | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Memo items:** | | | | | | | | | | |
| **International bunkers** | 12,030.17 | 12,014.34 | 12,351.34 | 11,656.28 | 11,112.00 | 10,158.60 | 11,840.29 | 13,048.89 | 12,098.40 | 12,883.48 |
| Aviation | 8,546.12 | 8,898.95 | 9,245.35 | 8,337.31 | 8,201.97 | 7,940.91 | 9,172.31 | 10,025.75 | 9,692.50 | 9,934.14 |
| Navigation | 3,484.05 | 3,115.39 | 3,105.99 | 3,318.97 | 2,910.02 | 2,217.70 | 2,667.98 | 3,023.13 | 2,405.90 | 2,949.34 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | 57,957.65 | 59,834.17 | 59,077.69 | 54,774.93 | 58,910.21 | 54,517.71 | 59,369.77 | 57,785.11 | 55,635.11 | 56,442.32 |
| **CO2 captured** | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **Long-term storage of C in waste disposal sites** | NE | NE | NE | NE | NE | NE | NE | NE | NE | NE |
| **Indirect N2O** | | | | | | | | | | |
| **Indirect CO2 (3)** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| **Total CO2 equivalent emissions without land use, land-use change and forestry** | 709,008.60 | 721,899.03 | 744,883.18 | 734,750.43 | 738,056.15 | 756,406.91 | 757,703.88 | 749,030.35 | 740,096.41 | 760,772.64 |
| **Total CO2 equivalent emissions with land use, land-use change and forestry** | 833,108.09 | 709,572.78 | 668,283.72 | 661,761.72 | 845,134.07 | 779,844.26 | 859,251.64 | 765,454.76 | 781,899.71 | 792,036.36 |
| **Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry** | | | | | | | | | | |
| **Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry** | | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(a)

CAN_BR2_v2.0

**Emission trends ($CO_2$)**

**(Sheet 3 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | % |
| **1. Energy** | 532,688.20 | 503,863.31 | 512,820.64 | 515,035.97 | 514,028.33 | 524,216.39 | 22.12 |
| A. Fuel combustion (sectoral approach) | 517,955.91 | 490,197.86 | 499,716.22 | 501,824.55 | 500,886.20 | 511,030.66 | 22.36 |
| 1. Energy industries | 178,268.53 | 162,143.99 | 162,297.41 | 154,569.04 | 152,785.78 | 152,571.10 | 6.56 |
| 2. Manufacturing industries and construction | 75,764.90 | 72,650.62 | 76,685.47 | 81,334.60 | 87,428.58 | 90,353.42 | 40.59 |
| 3. Transport | 188,171.36 | 181,899.81 | 191,015.51 | 190,667.88 | 190,756.98 | 195,941.32 | 39.14 |
| 4. Other sectors | 75,630.33 | 73,414.18 | 69,633.48 | 75,178.01 | 69,813.45 | 72,066.97 | 4.14 |
| 5. Other | 120.79 | 89.27 | 84.35 | 75.02 | 101.41 | 97.86 | -42.83 |
| B. Fugitive emissions from fuels | 14,732.20 | 13,665.37 | 13,104.33 | 13,211.34 | 13,142.05 | 13,185.64 | 13.61 |
| 1. Solid fuels | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | |
| 2. Oil and natural gas and other emissions from energy production | 14,732.20 | 13,665.37 | 13,104.33 | 13,211.34 | 13,142.05 | 13,185.64 | 13.61 |
| C. CO2 transport and storage | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | |
| **2. Industrial processes** | 44,291.14 | 38,471.85 | 41,325.37 | 41,447.04 | 45,151.46 | 42,421.44 | 33.58 |
| A. Mineral industry | 9,416.49 | 7,305.22 | 7,957.74 | 8,159.20 | 8,786.19 | 8,086.29 | -7.23 |
| B. Chemical industry | 2,805.04 | 2,400.66 | 2,491.20 | 2,881.16 | 3,002.38 | 3,480.67 | 25.49 |
| C. Metal industry | 15,838.22 | 13,051.65 | 13,974.46 | 14,927.08 | 14,551.01 | 12,655.12 | -1.96 |
| D. Non-energy products from fuels and solvent use | 16,231.38 | 15,712.52 | 16,892.50 | 15,456.76 | 18,775.24 | 18,153.12 | 146.66 |
| E. Electronic industry | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | |
| G. Other product manufacture and use | 0.00 | 1.79 | 9.47 | 22.83 | 36.63 | 46.24 | |
| H. Other | | | | | | | |
| **3. Agriculture** | 1,718.77 | 1,836.11 | 1,783.52 | 1,999.31 | 2,326.05 | 2,617.48 | 121.24 |
| A. Enteric fermentation | | | | | | | |
| B. Manure management | | | | | | | |
| C. Rice cultivation | | | | | | | |
| D. Agricultural soils | | | | | | | |
| E. Prescribed burning of savannas | | | | | | | |
| F. Field burning of agricultural residues | | | | | | | |
| G. Liming | 171.29 | 199.38 | 200.18 | 256.18 | 329.11 | 329.11 | -12.82 |
| H. Urea application | 1,359.60 | 1,444.67 | 1,386.00 | 1,531.93 | 1,764.40 | 2,034.93 | 169.93 |
| I. Other carbon-containing fertilizers | 187.88 | 192.06 | 197.34 | 211.20 | 232.54 | 253.44 | 390.21 |
| J. Other | | | | | | | |
| **4. Land Use, Land-Use Change and Forestry** | -24,072.93 | -18,330.41 | 62,536.30 | 62,970.93 | 42,492.98 | -24,420.13 | -74.04 |
| A. Forest land | -162,901.30 | -152,049.48 | -82,960.28 | -87,079.95 | -109,966.26 | -169,850.85 | -33.19 |
| B. Cropland | -9,252.08 | -8,866.86 | -8,576.40 | -8,194.45 | -7,931.84 | -7,598.36 | -177.22 |
| C. Grassland | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | |
| D. Wetlands | 4,027.80 | 3,927.78 | 3,893.73 | 3,733.39 | 3,748.19 | 3,595.75 | -39.21 |
| E. Settlements | 4,364.82 | 4,178.22 | 4,149.71 | 4,247.32 | 4,227.17 | 4,208.02 | 3.77 |
| F. Other land | NO | NO | NO | NO | NO | NO | |
| G. Harvested wood products | 139,687.83 | 134,479.93 | 146,029.54 | 150,264.62 | 152,415.72 | 145,225.31 | 3.46 |
| H. Other | NO | NO | NO | NO | NO | NO | |
| **5. Waste** | 483.23 | 462.70 | 471.11 | 461.73 | 503.45 | 401.95 | -20.76 |
| A. Solid waste disposal | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | |
| B. Biological treatment of solid waste | | | | | | | |
| C. Incineration and open burning of waste | 483.23 | 462.70 | 471.11 | 461.73 | 503.45 | 401.95 | -20.76 |
| D. Waste water treatment and discharge | | | | | | | |
| E. Other | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | |
| **Memo items:** | | | | | | | |
| **International bunkers** | 12,210.56 | 11,035.01 | 11,651.34 | 11,139.31 | 12,244.24 | 12,646.35 | 38.46 |
| Aviation | 9,341.28 | 8,796.00 | 9,317.34 | 9,423.79 | 10,836.79 | 11,250.63 | 84.42 |
| Navigation | 2,869.28 | 2,239.00 | 2,334.00 | 1,715.51 | 1,407.45 | 1,395.73 | -53.99 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | |
| **CO2 emissions from biomass** | 53,619.42 | 51,942.07 | 54,472.84 | 56,125.40 | 56,344.72 | 59,299.34 | 10.85 |
| **CO2 captured** | NO | NO | NO | NO | NO | NO | |
| **Long-term storage of C in waste disposal sites** | NE | NE | NE | NE | NE | NE | |
| **Indirect N2O** | | | | | | | |
| **Indirect CO2 (3)** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | |
| **Total CO2 equivalent emissions without land use, land-use change and forestry** | 741,477.79 | 698,546.37 | 707,038.12 | 709,228.45 | 715,220.26 | 726,050.66 | 18.49 |
| **Total CO2 equivalent emissions with land use, land-use change and forestry** | 725,114.61 | 690,690.05 | 788,419.30 | 791,431.12 | 775,313.29 | 710,977.17 | 35.36 |
| **Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry** | | | | | | | |
| **Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry** | | | | | | | |

*Abbreviations*: CRF = common reporting format, LULUCF = land use, land-use change and forestry.

[a] The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

[b] Fill in net emissions/removals as reported in CRF table Summary 1.A of the latest reported inventory year. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

***Custom Footnotes***

Table 1(b) CAN_BR2_v2.0

**Emission trends ($CH_4$)**

**(Sheet 1 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *Base year* [a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt* | | | | | | | | |
| **1. Energy** | 1,867.06 | 1,867.06 | 1,913.62 | 2,034.89 | 2,143.80 | 2,243.85 | 2,346.92 | 2,479.98 | 2,547.07 |
| A. Fuel combustion (sectoral approach) | 380.48 | 380.48 | 370.56 | 365.55 | 376.77 | 386.70 | 378.04 | 375.95 | 361.45 |
| 1. Energy industries | 76.24 | 76.24 | 71.60 | 75.94 | 75.14 | 78.99 | 80.93 | 79.90 | 76.45 |
| 2. Manufacturing industries and construction | 2.49 | 2.49 | 2.38 | 2.42 | 2.43 | 2.77 | 2.74 | 2.71 | 2.76 |
| 3. Transport | 32.01 | 32.01 | 30.60 | 32.78 | 32.96 | 33.85 | 35.38 | 37.29 | 36.88 |
| 4. Other sectors | 269.72 | 269.72 | 265.96 | 254.41 | 266.23 | 271.07 | 258.98 | 256.05 | 245.36 |
| 5. Other | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 |
| B. Fugitive emissions from fuels | 1,486.58 | 1,486.58 | 1,543.06 | 1,669.34 | 1,767.03 | 1,857.16 | 1,968.88 | 2,104.03 | 2,185.62 |
| 1. Solid fuels | 112.96 | 112.96 | 115.11 | 92.25 | 101.62 | 100.26 | 91.81 | 87.46 | 90.29 |
| 2. Oil and natural gas and other emissions from energy production | 1,373.62 | 1,373.62 | 1,427.95 | 1,577.08 | 1,665.41 | 1,756.90 | 1,877.07 | 2,016.57 | 2,095.34 |
| C. CO2 transport and storage | | | | | | | | | |
| **2. Industrial processes** | 4.72 | 4.72 | 4.37 | 3.97 | 3.89 | 3.98 | 3.86 | 3.97 | 3.81 |
| A. Mineral industry | | | | | | | | | |
| B. Chemical industry | 4.72 | 4.72 | 4.37 | 3.97 | 3.89 | 3.98 | 3.86 | 3.97 | 3.81 |
| C. Metal industry | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| E. Electronic industry | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | |
| G. Other product manufacture and use | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| H. Other | | | | | | | | | |
| **3. Agriculture** | 1,060.87 | 1,060.87 | 1,079.39 | 1,126.62 | 1,142.53 | 1,188.19 | 1,249.67 | 1,266.16 | 1,263.26 |
| A. Enteric fermentation | 913.52 | 913.52 | 933.44 | 978.28 | 995.15 | 1,038.37 | 1,092.71 | 1,107.97 | 1,105.11 |
| B. Manure management | 140.28 | 140.28 | 140.13 | 143.58 | 142.05 | 144.24 | 151.19 | 152.77 | 152.63 |
| C. Rice cultivation | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| D. Agricultural soils | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| F. Field burning of agricultural residues | 7.06 | 7.06 | 5.81 | 4.76 | 5.34 | 5.58 | 5.77 | 5.42 | 5.52 |
| G. Liming | | | | | | | | | |
| H. Urea application | | | | | | | | | |
| I. Other carbon-containing fertilizers | | | | | | | | | |
| J. Other | | | | | | | | | |
| **4. Land use, land-use change and forestry** | 177.31 | 177.31 | 290.28 | 135.82 | 278.52 | 317.13 | 955.57 | 257.50 | 111.95 |
| A. Forest land | 140.08 | 140.08 | 248.64 | 81.74 | 251.97 | 275.40 | 934.70 | 230.06 | 83.84 |
| B. Cropland | 12.68 | 12.68 | 11.47 | 10.50 | 8.96 | 7.95 | 7.39 | 6.48 | 6.43 |
| C. Grassland | 19.66 | 19.66 | 24.62 | 37.97 | 12.56 | 29.42 | 9.16 | 16.50 | 16.85 |
| D. Wetlands | 0.31 | 0.31 | 0.46 | 0.73 | 0.18 | 0.00 | 0.01 | NO, NE | 0.15 |
| E. Settlements | 4.57 | 4.57 | 5.09 | 4.89 | 4.86 | 4.36 | 4.31 | 4.46 | 4.67 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | | | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 908.80 | 908.80 | 927.83 | 940.69 | 956.51 | 962.48 | 961.59 | 958.67 | 971.92 |
| A. Solid waste disposal | 893.30 | 893.30 | 912.15 | 924.83 | 940.69 | 946.52 | 945.45 | 942.43 | 956.19 |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE |
| C. Incineration and open burning of waste | 0.46 | 0.46 | 0.47 | 0.51 | 0.33 | 0.33 | 0.37 | 0.35 | 0.05 |
| D. Waste water treatment and discharge | 15.04 | 15.04 | 15.21 | 15.35 | 15.50 | 15.63 | 15.76 | 15.89 | 15.68 |
| E. Other | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total CH4 emissions without CH4 from LULUCF** | 3,841.44 | 3,841.44 | 3,925.21 | 4,106.17 | 4,246.74 | 4,398.51 | 4,562.03 | 4,708.77 | 4,786.06 |
| **Total CH4 emissions with CH4 from LULUCF** | 4,018.75 | 4,018.75 | 4,215.49 | 4,241.99 | 4,525.27 | 4,715.64 | 5,517.60 | 4,966.27 | 4,898.00 |
| **Memo items:** | | | | | | | | | |
| **International bunkers** | 0.33 | 0.33 | 0.32 | 0.32 | 0.28 | 0.31 | 0.33 | 0.32 | 0.32 |
| Aviation | 0.08 | 0.08 | 0.06 | 0.05 | 0.04 | 0.05 | 0.06 | 0.06 | 0.06 |
| Navigation | 0.24 | 0.24 | 0.26 | 0.27 | 0.24 | 0.27 | 0.28 | 0.26 | 0.26 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | | | | | | | | | |
| **CO2 captured** | | | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | | | |
| **Indirect N2O** | | | | | | | | | |
| **Indirect CO2 (3)** | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(b) CAN_BR2_v2.0

**Emission trends ($CH_4$)**

**(Sheet 2 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1. Energy** | 2,597.79 | 2,566.35 | 2,542.06 | 2,466.89 | 2,353.46 | 2,287.24 | 2,252.67 | 2,172.03 | 2,157.41 | 2,134.57 |
| A. Fuel combustion (sectoral approach) | 392.10 | 404.66 | 398.80 | 380.52 | 399.52 | 362.56 | 348.74 | 325.61 | 318.63 | 322.35 |
| 1. Energy industries | 90.01 | 114.40 | 117.57 | 117.82 | 115.85 | 112.71 | 103.37 | 89.92 | 89.39 | 93.29 |
| 2. Manufacturing industries and construction | 2.82 | 2.91 | 2.99 | 2.89 | 3.08 | 3.08 | 3.36 | 3.30 | 3.33 | 3.44 |
| 3. Transport | 37.99 | 37.34 | 35.26 | 33.68 | 34.12 | 32.78 | 32.28 | 32.84 | 31.25 | 31.03 |
| 4. Other sectors | 261.28 | 250.01 | 242.98 | 226.12 | 246.46 | 213.98 | 209.74 | 199.53 | 194.66 | 194.58 |
| 5. Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 |
| B. Fugitive emissions from fuels | 2,205.69 | 2,161.69 | 2,143.25 | 2,086.36 | 1,953.94 | 1,924.68 | 1,903.93 | 1,846.42 | 1,838.78 | 1,812.22 |
| 1. Solid fuels | 78.94 | 66.63 | 68.77 | 69.66 | 62.24 | 56.28 | 59.63 | 65.87 | 59.43 | 62.73 |
| 2. Oil and natural gas and other emissions from energy production | 2,126.75 | 2,095.06 | 2,074.49 | 2,016.70 | 1,891.70 | 1,868.39 | 1,844.31 | 1,780.55 | 1,779.35 | 1,749.49 |
| C. CO2 transport and storage | | | | | | | | | | |
| **2. Industrial processes** | 3.62 | 4.06 | 4.22 | 4.12 | 3.97 | 3.71 | 4.19 | 3.39 | 3.36 | 3.38 |
| A. Mineral industry | | | | | | | | | | |
| B. Chemical industry | 3.62 | 4.06 | 4.22 | 4.12 | 3.97 | 3.71 | 4.19 | 3.39 | 3.36 | 3.38 |
| C. Metal industry | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| E. Electronic industry | | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | | |
| G. Other product manufacture and use | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| H. Other | | | | | | | | | | |
| **3. Agriculture** | 1,268.42 | 1,275.56 | 1,300.76 | 1,337.10 | 1,343.18 | 1,354.08 | 1,395.95 | 1,429.14 | 1,390.27 | 1,339.52 |
| A. Enteric fermentation | 1,107.53 | 1,115.42 | 1,137.59 | 1,169.57 | 1,171.34 | 1,181.26 | 1,224.56 | 1,255.26 | 1,218.76 | 1,177.18 |
| B. Manure management | 154.74 | 155.61 | 159.10 | 164.08 | 168.38 | 168.68 | 170.31 | 172.47 | 170.01 | 161.14 |
| C. Rice cultivation | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| D. Agricultural soils | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| F. Field burning of agricultural residues | 6.16 | 4.52 | 4.07 | 3.46 | 3.46 | 4.15 | 1.08 | 1.40 | 1.51 | 1.20 |
| G. Liming | | | | | | | | | | |
| H. Urea application | | | | | | | | | | |
| I. Other carbon-containing fertilizers | | | | | | | | | | |
| J. Other | | | | | | | | | | |
| **4. Land use, land-use change and forestry** | 797.62 | 333.71 | 104.07 | 180.31 | 699.38 | 469.17 | 596.09 | 299.26 | 393.47 | 338.86 |
| A. Forest land | 764.98 | 297.51 | 62.27 | 138.59 | 654.84 | 421.71 | 555.87 | 260.64 | 345.72 | 313.88 |
| B. Cropland | 6.13 | 5.92 | 5.35 | 6.38 | 5.31 | 4.94 | 5.18 | 4.91 | 5.03 | 5.02 |
| C. Grassland | 20.39 | 23.43 | 31.46 | 29.90 | 33.44 | 35.93 | 27.97 | 26.02 | 35.91 | 13.11 |
| D. Wetlands | 0.92 | 1.59 | NO, NE | 0.00 | 0.00 | 0.67 | 0.96 | 1.43 | 0.14 | NO, NE |
| E. Settlements | 5.19 | 5.25 | 4.99 | 5.44 | 5.79 | 5.93 | 6.11 | 6.27 | 6.67 | 6.85 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | | | | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 984.84 | 1,001.25 | 1,003.95 | 1,006.06 | 1,026.27 | 1,043.88 | 1,058.76 | 1,072.69 | 1,094.19 | 1,077.22 |
| A. Solid waste disposal | 969.61 | 986.68 | 990.01 | 992.32 | 1,012.43 | 1,029.97 | 1,044.75 | 1,058.49 | 1,079.79 | 1,062.70 |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE |
| C. Incineration and open burning of waste | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 |
| D. Waste water treatment and discharge | 15.16 | 14.51 | 13.87 | 13.66 | 13.76 | 13.83 | 13.92 | 14.11 | 14.30 | 14.42 |
| E. Other | | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total CH4 emissions without CH4 from LULUCF** | 4,854.67 | 4,847.21 | 4,850.99 | 4,814.18 | 4,726.87 | 4,688.91 | 4,711.58 | 4,677.25 | 4,645.23 | 4,554.69 |
| **Total CH4 emissions with CH4 from LULUCF** | 5,652.29 | 5,180.92 | 4,955.06 | 4,994.48 | 5,426.26 | 5,158.09 | 5,307.67 | 4,976.51 | 5,038.70 | 4,893.55 |
| **Memo items:** | | | | | | | | | | |
| **International bunkers** | 0.36 | 0.32 | 0.32 | 0.34 | 0.29 | 0.23 | 0.26 | 0.29 | 0.24 | 0.31 |
| Aviation | 0.07 | 0.06 | 0.06 | 0.07 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| Navigation | 0.29 | 0.26 | 0.25 | 0.27 | 0.24 | 0.19 | 0.22 | 0.26 | 0.20 | 0.25 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | | | | | | | | | | |
| **CO2 captured** | | | | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | | | | |
| **Indirect N2O** | | | | | | | | | | |
| **Indirect CO2 (3)** | | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(b) CAN_BR2_v2.0

**Emission trends ($CH_4$)**

**(Sheet 3 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | % |
| **1. Energy** | 2,078.42 | 1,979.36 | 1,970.08 | 2,007.69 | 2,087.56 | 2,142.82 | 14.77 |
| A. Fuel combustion (sectoral approach) | 315.37 | 300.86 | 311.57 | 314.20 | 319.78 | 324.10 | -14.82 |
| 1. Energy industries | 86.39 | 81.07 | 79.50 | 80.99 | 85.97 | 90.00 | 18.05 |
| 2. Manufacturing industries and construction | 3.23 | 3.00 | 3.13 | 3.16 | 3.29 | 3.53 | 41.51 |
| 3. Transport | 29.16 | 27.53 | 28.14 | 28.09 | 27.57 | 28.83 | -9.93 |
| 4. Other sectors | 196.58 | 189.25 | 200.79 | 201.95 | 202.94 | 201.73 | -25.21 |
| 5. Other | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | -42.42 |
| B. Fugitive emissions from fuels | 1,763.05 | 1,678.50 | 1,658.51 | 1,693.50 | 1,767.78 | 1,818.72 | 22.34 |
| 1. Solid fuels | 61.18 | 56.72 | 63.65 | 63.06 | 63.72 | 69.13 | -38.80 |
| 2. Oil and natural gas and other emissions from energy production | 1,701.88 | 1,621.78 | 1,594.86 | 1,630.44 | 1,704.06 | 1,749.59 | 27.37 |
| C. CO2 transport and storage | | | | | | | |
| **2. Industrial processes** | 3.06 | 2.63 | 2.65 | 2.69 | 2.75 | 3.02 | -35.99 |
| A. Mineral industry | | | | | | | |
| B. Chemical industry | 3.06 | 2.63 | 2.65 | 2.69 | 2.75 | 3.02 | -35.99 |
| C. Metal industry | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | |
| E. Electronic industry | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | |
| G. Other product manufacture and use | NA | NA | NA | NA | NA | NA | |
| H. Other | | | | | | | |
| **3. Agriculture** | 1,297.40 | 1,226.56 | 1,181.04 | 1,152.80 | 1,154.52 | 1,159.00 | 9.25 |
| A. Enteric fermentation | 1,142.04 | 1,076.56 | 1,032.79 | 1,005.65 | 1,007.41 | 1,009.37 | 10.49 |
| B. Manure management | 153.83 | 148.49 | 147.24 | 146.23 | 145.93 | 148.05 | 5.53 |
| C. Rice cultivation | NO | NO | NO | NO | NO | NO | |
| D. Agricultural soils | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | |
| F. Field burning of agricultural residues | 1.54 | 1.52 | 1.01 | 0.93 | 1.19 | 1.59 | -77.46 |
| G. Liming | | | | | | | |
| H. Urea application | | | | | | | |
| I. Other carbon-containing fertilizers | | | | | | | |
| J. Other | | | | | | | |
| **4. Land use, land-use change and forestry** | 207.22 | 280.81 | 503.68 | 514.73 | 475.24 | 251.82 | 42.02 |
| A. Forest land | 180.74 | 256.43 | 482.94 | 484.65 | 417.22 | 220.33 | 57.29 |
| B. Cropland | 4.71 | 4.97 | 4.77 | 4.80 | 4.69 | 4.98 | -60.70 |
| C. Grassland | 14.73 | 12.89 | 9.73 | 19.28 | 47.46 | 20.82 | 5.87 |
| D. Wetlands | 0.54 | 0.57 | 0.51 | NO, NE | NO, NE | NO, NE | |
| E. Settlements | 6.50 | 5.96 | 5.74 | 6.00 | 5.87 | 5.69 | 24.51 |
| F. Other land | NO | NO | NO | NO | NO | NO | |
| G. Harvested wood products | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | |
| **5. Waste** | 1,069.05 | 1,076.51 | 1,013.67 | 1,003.39 | 969.95 | 965.49 | 6.24 |
| A. Solid waste disposal | 1,054.12 | 1,061.48 | 998.39 | 987.95 | 954.34 | 949.71 | 6.31 |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | |
| C. Incineration and open burning of waste | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.12 | -73.60 |
| D. Waste water treatment and discharge | 14.83 | 14.92 | 15.17 | 15.32 | 15.49 | 15.66 | 4.10 |
| E. Other | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | |
| **Total CH4 emissions without CH4 from LULUCF** | 4,447.94 | 4,285.06 | 4,167.44 | 4,166.57 | 4,214.78 | 4,270.34 | 11.16 |
| **Total CH4 emissions with CH4 from LULUCF** | 4,655.16 | 4,565.87 | 4,671.13 | 4,681.30 | 4,690.02 | 4,522.16 | 12.53 |
| **Memo items:** | | | | | | | |
| **International bunkers** | 0.30 | 0.24 | 0.25 | 0.20 | 0.17 | 0.17 | -48.41 |
| Aviation | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | -41.12 |
| Navigation | 0.25 | 0.19 | 0.20 | 0.15 | 0.12 | 0.12 | -50.89 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | |
| **CO2 emissions from biomass** | | | | | | | |
| **CO2 captured** | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | |
| **Indirect N2O** | | | | | | | |
| **Indirect CO2 (3)** | | | | | | | |

*Abbreviations*: CRF = common reporting format, LULUCF = land use, land-use change and f

[a] The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

***Custom Footnotes***

Table 1(c)

CAN_BR2_v2.0

**Emission trends ($N_2O$)**

**(Sheet 1 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *Base year* [a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt* | | | | | | | | |
| **1. Energy** | 29.21 | 29.21 | 29.30 | 29.99 | 32.26 | 33.92 | 34.93 | 36.48 | 38.26 |
| A. Fuel combustion (sectoral approach) | 29.10 | 29.10 | 29.19 | 29.89 | 32.15 | 33.79 | 34.81 | 36.35 | 38.14 |
| 1. Energy industries | 2.69 | 2.69 | 2.64 | 2.80 | 2.69 | 2.74 | 2.84 | 2.84 | 2.99 |
| 2. Manufacturing industries and construction | 1.98 | 1.98 | 1.93 | 1.95 | 1.95 | 2.14 | 2.19 | 2.16 | 2.24 |
| 3. Transport | 20.38 | 20.38 | 20.58 | 21.18 | 23.40 | 24.70 | 25.64 | 27.19 | 28.88 |
| 4. Other sectors | 4.04 | 4.04 | 4.03 | 3.95 | 4.11 | 4.20 | 4.14 | 4.15 | 4.02 |
| 5. Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| B. Fugitive emissions from fuels | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 |
| 1. Solid fuels | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| 2. Oil and natural gas and other emissions from energy production | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 |
| C. CO2 transport and storage | | | | | | | | | |
| **2. Industrial processes** | 38.47 | 38.47 | 36.27 | 36.11 | 33.26 | 39.09 | 38.58 | 41.32 | 36.10 |
| A. Mineral industry | | | | | | | | | |
| B. Chemical industry | 37.89 | 37.89 | 35.72 | 35.65 | 32.74 | 38.52 | 37.89 | 40.62 | 35.36 |
| C. Metal industry | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| E. Electronic industry | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | |
| G. Other product manufacture and use | 0.58 | 0.58 | 0.55 | 0.46 | 0.51 | 0.57 | 0.69 | 0.70 | 0.74 |
| H. Other | | | | | | | | | |
| **3. Agriculture** | 71.75 | 71.75 | 69.87 | 70.61 | 73.45 | 76.08 | 77.39 | 80.39 | 79.94 |
| A. Enteric fermentation | | | | | | | | | |
| B. Manure management | 13.83 | 13.83 | 14.06 | 14.72 | 14.92 | 15.49 | 16.19 | 16.29 | 16.36 |
| C. Rice cultivation | | | | | | | | | |
| D. Agricultural soils | 57.74 | 57.74 | 55.66 | 55.77 | 58.39 | 60.45 | 61.04 | 63.96 | 63.43 |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| F. Field burning of agricultural residues | 0.18 | 0.18 | 0.15 | 0.12 | 0.14 | 0.14 | 0.15 | 0.14 | 0.14 |
| G. Liming | | | | | | | | | |
| H. Urea application | | | | | | | | | |
| I. Other carbon containing fertlizers | | | | | | | | | |
| J. Other | | | | | | | | | |
| **4. Land use, land-use change and forestry** | 7.15 | 7.15 | 11.74 | 5.09 | 11.50 | 12.86 | 40.03 | 10.57 | 4.43 |
| A. Forest land | 5.86 | 5.86 | 10.36 | 3.41 | 10.57 | 11.56 | 39.28 | 9.66 | 3.51 |
| B. Cropland | 0.60 | 0.60 | 0.54 | 0.50 | 0.43 | 0.39 | 0.36 | 0.32 | 0.32 |
| C. Grassland | 0.51 | 0.51 | 0.64 | 0.98 | 0.33 | 0.76 | 0.24 | 0.43 | 0.44 |
| D. Wetlands | 0.01 | 0.01 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | NO, NA, NE | 0.01 |
| E. Settlements | 0.16 | 0.16 | 0.18 | 0.17 | 0.16 | 0.16 | 0.15 | 0.16 | 0.17 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | | | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 2.38 | 2.38 | 2.45 | 2.53 | 2.49 | 2.57 | 2.70 | 2.65 | 2.50 |
| A. Solid waste disposal | | | | | | | | | |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE |
| C. Incineration and open burning of waste | 0.72 | 0.72 | 0.75 | 0.79 | 0.72 | 0.77 | 0.85 | 0.78 | 0.59 |
| D. Waste water treatment and discharge | 1.66 | 1.66 | 1.70 | 1.73 | 1.77 | 1.81 | 1.84 | 1.86 | 1.92 |
| E. Other | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total direct N2O emissions without N2O from LULUCF** | 141.80 | 141.80 | 137.88 | 139.24 | 141.45 | 151.66 | 153.60 | 160.84 | 156.80 |
| **Total direct N2O emissions with N2O from LULUCF** | 148.96 | 148.96 | 149.62 | 144.33 | 152.95 | 164.53 | 193.62 | 171.41 | 161.24 |
| **Memo items:** | | | | | | | | | |
| **International bunkers** | 0.51 | 0.51 | 0.47 | 0.46 | 0.43 | 0.46 | 0.50 | 0.52 | 0.50 |
| Aviation | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.17 | 0.18 | 0.22 | 0.23 |
| Navigation | 0.34 | 0.34 | 0.32 | 0.30 | 0.27 | 0.29 | 0.31 | 0.30 | 0.27 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | | | | | | | | | |
| **CO2 captured** | | | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | | | |
| **Indirect N2O** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| **Indirect CO2 (3)** | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(c) CAN_BR2_v2.0

**Emission trends ($N_2O$)**

**(Sheet 2 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1. Energy** | 38.66 | 40.25 | 41.46 | 40.62 | 40.95 | 42.20 | 41.50 | 40.41 | 38.45 | 38.78 |
| A. Fuel combustion (sectoral approach) | 38.53 | 40.13 | 41.34 | 40.50 | 40.83 | 42.07 | 41.37 | 40.28 | 38.32 | 38.65 |
| 1. Energy industries | 3.38 | 3.57 | 3.81 | 3.82 | 3.78 | 4.00 | 3.90 | 3.76 | 3.61 | 3.66 |
| 2. Manufacturing industries and construction | 2.24 | 2.31 | 2.40 | 2.32 | 2.43 | 2.40 | 2.60 | 2.66 | 2.66 | 2.77 |
| 3. Transport | 28.87 | 30.25 | 31.10 | 30.56 | 30.53 | 31.90 | 31.18 | 30.33 | 28.62 | 28.65 |
| 4. Other sectors | 4.04 | 3.99 | 4.03 | 3.80 | 4.08 | 3.78 | 3.69 | 3.54 | 3.42 | 3.56 |
| 5. Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| B. Fugitive emissions from fuels | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| 1. Solid fuels | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE |
| 2. Oil and natural gas and other emissions from energy production | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| C. CO2 transport and storage | | | | | | | | | | |
| **2. Industrial processes** | 21.03 | 10.78 | 8.37 | 8.14 | 9.38 | 9.07 | 15.31 | 13.84 | 8.99 | 9.56 |
| A. Mineral industry | | | | | | | | | | |
| B. Chemical industry | 19.73 | 9.46 | 6.92 | 6.78 | 8.14 | 7.63 | 14.00 | 12.63 | 7.92 | 8.51 |
| C. Metal industry | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE |
| E. Electronic industry | | | | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | | | | |
| G. Other product manufacture and use | 1.29 | 1.32 | 1.45 | 1.35 | 1.24 | 1.44 | 1.31 | 1.22 | 1.06 | 1.05 |
| H. Other | | | | | | | | | | |
| **3. Agriculture** | 81.02 | 82.17 | 82.04 | 77.99 | 75.28 | 80.87 | 83.24 | 81.88 | 81.81 | 84.18 |
| A. Enteric fermentation | | | | | | | | | | |
| B. Manure management | 16.66 | 16.93 | 17.38 | 17.89 | 17.92 | 18.10 | 18.47 | 18.86 | 18.51 | 17.98 |
| C. Rice cultivation | | | | | | | | | | |
| D. Agricultural soils | 64.20 | 65.12 | 64.56 | 60.01 | 57.27 | 62.66 | 64.75 | 62.98 | 63.27 | 66.17 |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| F. Field burning of agricultural residues | 0.16 | 0.12 | 0.11 | 0.09 | 0.09 | 0.11 | 0.03 | 0.04 | 0.04 | 0.03 |
| G. Liming | | | | | | | | | | |
| H. Urea application | | | | | | | | | | |
| I. Other carbon containing fertlizers | | | | | | | | | | |
| J. Other | | | | | | | | | | |
| **4. Land use, land-use change and forestry** | 33.23 | 13.67 | 3.88 | 7.10 | 28.90 | 19.14 | 24.64 | 12.17 | 15.98 | 14.05 |
| A. Forest land | 32.18 | 12.51 | 2.61 | 5.82 | 27.55 | 17.71 | 23.39 | 10.96 | 14.54 | 13.20 |
| B. Cropland | 0.30 | 0.29 | 0.27 | 0.31 | 0.27 | 0.25 | 0.26 | 0.25 | 0.25 | 0.25 |
| C. Grassland | 0.53 | 0.61 | 0.82 | 0.78 | 0.87 | 0.93 | 0.73 | 0.67 | 0.93 | 0.34 |
| D. Wetlands | 0.04 | 0.07 | NO, NA, NE | 0.00 | 0.00 | 0.03 | 0.04 | 0.06 | 0.01 | NO, NA, NE |
| E. Settlements | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 | 0.25 | 0.26 |
| F. Other land | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| G. Harvested wood products | | | | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| **5. Waste** | 2.61 | 2.58 | 2.71 | 2.80 | 2.82 | 2.69 | 2.78 | 2.76 | 2.75 | 2.76 |
| A. Solid waste disposal | | | | | | | | | | |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE |
| C. Incineration and open burning of waste | 0.66 | 0.59 | 0.69 | 0.72 | 0.73 | 0.60 | 0.66 | 0.65 | 0.63 | 0.59 |
| D. Waste water treatment and discharge | 1.95 | 1.99 | 2.03 | 2.08 | 2.09 | 2.08 | 2.12 | 2.10 | 2.12 | 2.17 |
| E. Other | | | | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total direct N2O emissions without N2O from LULUCF** | 143.31 | 135.79 | 134.59 | 129.55 | 128.44 | 134.83 | 142.84 | 138.90 | 131.99 | 135.28 |
| **Total direct N2O emissions with N2O from LULUCF** | 176.55 | 149.46 | 138.47 | 136.65 | 157.34 | 153.97 | 167.47 | 151.07 | 147.98 | 149.33 |
| **Memo items:** | | | | | | | | | | |
| **International bunkers** | 0.54 | 0.54 | 0.56 | 0.52 | 0.51 | 0.39 | 0.44 | 0.46 | 0.44 | 0.42 |
| Aviation | 0.24 | 0.25 | 0.26 | 0.23 | 0.23 | 0.22 | 0.25 | 0.28 | 0.27 | 0.28 |
| Navigation | 0.31 | 0.29 | 0.30 | 0.29 | 0.28 | 0.17 | 0.18 | 0.18 | 0.17 | 0.14 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | IE | IE | IE | IE |
| **CO2 emissions from biomass** | | | | | | | | | | |
| **CO2 captured** | | | | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | | | | |
| **Indirect N2O** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE |
| **Indirect CO2 (3)** | | | | | | | | | | |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(c) CAN_BR2_v2.0

**Emission trends ($N_2O$)**

**(Sheet 3 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | % |
| **1. Energy** | 37.80 | 33.71 | 35.89 | 35.93 | 34.65 | 34.32 | 17.50 |
| A. Fuel combustion (sectoral approach) | 37.67 | 33.56 | 35.75 | 35.79 | 34.51 | 34.16 | 17.40 |
| 1. Energy industries | 3.48 | 3.15 | 3.10 | 3.01 | 2.99 | 2.95 | 9.64 |
| 2. Manufacturing industries and construction | 2.63 | 2.47 | 2.62 | 2.69 | 2.85 | 3.00 | 51.20 |
| 3. Transport | 27.95 | 24.47 | 26.45 | 26.37 | 24.97 | 24.53 | 20.32 |
| 4. Other sectors | 3.59 | 3.47 | 3.57 | 3.72 | 3.69 | 3.69 | -8.67 |
| 5. Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -37.08 |
| B. Fugitive emissions from fuels | 0.13 | 0.15 | 0.14 | 0.14 | 0.13 | 0.16 | 43.76 |
| 1. Solid fuels | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | NO, NA, NE | |
| 2. Oil and natural gas and other emissions from energy production | 0.13 | 0.15 | 0.14 | 0.14 | 0.13 | 0.16 | 43.76 |
| C. CO2 transport and storage | | | | | | | |
| **2. Industrial processes** | 13.04 | 6.71 | 4.37 | 4.58 | 4.73 | 4.19 | -89.10 |
| A. Mineral industry | | | | | | | |
| B. Chemical industry | 11.94 | 5.87 | 3.59 | 3.78 | 3.73 | 3.33 | -91.20 |
| C. Metal industry | NA | NA | NA | NA | NA | NA | |
| D. Non-energy products from fuels and solvent use | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | NA, IE | |
| E. Electronic industry | | | | | | | |
| F. Product uses as ODS substitutes | | | | | | | |
| G. Other product manufacture and use | 1.10 | 0.84 | 0.78 | 0.80 | 1.00 | 0.86 | 49.13 |
| H. Other | | | | | | | |
| **3. Agriculture** | 88.45 | 85.17 | 85.84 | 84.61 | 90.13 | 97.00 | 35.18 |
| A. Enteric fermentation | | | | | | | |
| B. Manure management | 17.47 | 16.67 | 16.18 | 15.85 | 15.94 | 15.88 | 14.84 |
| C. Rice cultivation | | | | | | | |
| D. Agricultural soils | 70.93 | 68.46 | 69.63 | 68.73 | 74.16 | 81.07 | 40.42 |
| E. Prescribed burning of savannas | NO | NO | NO | NO | NO | NO | |
| F. Field burning of agricultural residues | 0.04 | 0.04 | 0.03 | 0.02 | 0.03 | 0.04 | -77.46 |
| G. Liming | | | | | | | |
| H. Urea application | | | | | | | |
| I. Other carbon containing fertlizers | | | | | | | |
| J. Other | | | | | | | |
| **4. Land use, land-use change and forestry** | 8.49 | 11.59 | 20.98 | 21.35 | 19.19 | 10.24 | 43.19 |
| A. Forest land | 7.60 | 10.76 | 20.25 | 20.38 | 17.51 | 9.24 | 57.56 |
| B. Cropland | 0.24 | 0.25 | 0.24 | 0.24 | 0.24 | 0.25 | -58.42 |
| C. Grassland | 0.38 | 0.33 | 0.25 | 0.50 | 1.23 | 0.54 | 5.87 |
| D. Wetlands | 0.02 | 0.02 | 0.02 | NO, NA, NE | NO, NA, NE | NO, NA, NE | |
| E. Settlements | 0.25 | 0.22 | 0.21 | 0.23 | 0.22 | 0.21 | 28.49 |
| F. Other land | NO | NO | NO | NO | NO | NO | |
| G. Harvested wood products | | | | | | | |
| H. Other | NO | NO | NO | NO | NO | NO | |
| **5. Waste** | 2.78 | 2.75 | 2.79 | 2.78 | 2.87 | 2.69 | 13.03 |
| A. Solid waste disposal | | | | | | | |
| B. Biological treatment of solid waste | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | NO, NE | |
| C. Incineration and open burning of waste | 0.63 | 0.59 | 0.61 | 0.59 | 0.67 | 0.47 | -34.62 |
| D. Waste water treatment and discharge | 2.14 | 2.16 | 2.18 | 2.19 | 2.20 | 2.22 | 33.70 |
| E. Other | | | | | | | |
| **6. Other (as specified in the summary table in CRF)** | NA | NA | NA | NA | NA | NA | |
| **Total direct N2O emissions without N2O from LULUCF** | 142.06 | 128.34 | 128.88 | 127.90 | 132.38 | 138.20 | -2.54 |
| **Total direct N2O emissions with N2O from LULUCF** | 150.55 | 139.93 | 149.87 | 149.25 | 151.57 | 148.44 | -0.35 |
| **Memo items:** | | | | | | | |
| **International bunkers** | 0.40 | 0.34 | 0.37 | 0.34 | 0.36 | 0.39 | -24.84 |
| Aviation | 0.26 | 0.24 | 0.26 | 0.26 | 0.30 | 0.31 | 82.65 |
| Navigation | 0.14 | 0.10 | 0.12 | 0.08 | 0.06 | 0.07 | -78.36 |
| **Multilateral operations** | IE | IE | IE | IE | IE | IE | |
| **CO2 emissions from biomass** | | | | | | | |
| **CO2 captured** | | | | | | | |
| **Long-term storage of C in waste disposal sites** | | | | | | | |
| **Indirect N2O** | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | NA, NE | |
| **Indirect CO2 (3)** | | | | | | | |

*Abbreviations*: CRF = common reporting format, LULUCF = land use, land-use change and fore

[a] The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

***Custom Footnotes***

Table 1(d) CAN_BR2_v2.0

**Emission trends (HFCs, PFCs and $SF_6$)**

**(Sheet 1 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *Base year* [a] | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| | *kt* | | | | | | | | |
| **Emissions of HFCs and PFCs - (kt CO2 equivalent)** | 8,528.49 | 8,528.49 | 9,089.84 | 8,408.52 | 7,455.59 | 6,895.02 | 7,304.56 | 7,930.69 | 8,233.81 |
| **Emissions of HFCs - (kt CO2 equivalent)** | 970.58 | 970.58 | 1,056.72 | 829.84 | NO, NA | NO, NA | 955.34 | 1,427.94 | 1,858.90 |
| HFC-23 | 0.07 | 0.07 | 0.07 | 0.06 | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| HFC-32 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| HFC-41 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-43-10mee | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-125 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.04 | 0.08 | 0.12 |
| HFC-134 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-134a | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.51 | 0.61 | 0.75 |
| HFC-143 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-143a | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.02 | 0.06 | 0.08 |
| HFC-152 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-152a | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.01 |
| HFC-161 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-227ea | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| HFC-236cb | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-236ea | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-236fa | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 |
| HFC-245ca | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-245fa | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-365mfc | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| Unspecified mix of HFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Emissions of PFCs - (kt CO2 equivalent)** | 7,557.90 | 7,557.90 | 8,033.12 | 7,578.69 | 7,455.59 | 6,895.02 | 6,349.22 | 6,502.75 | 6,374.91 |
| $CF_4$ | 0.91 | 0.91 | 0.96 | 0.91 | 0.89 | 0.83 | 0.76 | 0.78 | 0.76 |
| $C_2F_6$ | 0.07 | 0.07 | 0.08 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 |
| $C_3F_8$ | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| $C_4F_{10}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| c-$C_4F_8$ | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 |
| $C_5F_{12}$ | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| $C_6F_{14}$ | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 |
| C10F18 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| c-C3F6 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Unspecified mix of PFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)** | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Emissions of SF6 - (kt CO2 equivalent)** | 3,227.36 | 3,227.36 | 3,686.67 | 2,558.55 | 2,374.98 | 2,443.17 | 2,276.59 | 1,769.63 | 1,828.60 |
| $SF_6$ | 0.14 | 0.14 | 0.16 | 0.11 | 0.10 | 0.11 | 0.10 | 0.08 | 0.08 |
| **Emissions of NF3 - (kt CO2 equivalent)** | 0.32 | 0.32 | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 |
| NF3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(d) CAN_BR2_v2.0

**Emission trends (HFCs, PFCs and $SF_6$)**

**(Sheet 2 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *1998* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Emissions of HFCs and PFCs - (kt CO2 equivalent)** | 8,906.01 | 8,361.99 | 8,573.51 | 7,958.66 | 7,837.60 | 8,180.95 | 8,496.45 | 9,104.13 | 8,345.05 | 7,966.81 |
| **Emissions of HFCs - (kt CO2 equivalent)** | 2,428.78 | 2,990.20 | 3,587.94 | 3,910.03 | 4,374.59 | 4,690.86 | 4,974.06 | 5,264.86 | 5,359.02 | 5,432.14 |
| HFC-23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HFC-32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 |
| HFC-41 | NO, NA | 0.00 | 0.00 | 0.00 | 0.00 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-43-10mee | NO, NA | NO, NA | NO, NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HFC-125 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 |
| HFC-134 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-134a | 0.94 | 1.19 | 1.43 | 1.52 | 1.66 | 1.74 | 1.81 | 1.89 | 1.83 | 1.81 |
| HFC-143 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-143a | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.31 | 0.33 |
| HFC-152 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-152a | 0.01 | 0.01 | 0.02 | 0.13 | 0.24 | 0.33 | 0.44 | 0.55 | 0.67 | 0.28 |
| HFC-161 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-227ea | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HFC-236cb | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-236ea | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-236fa | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HFC-245ca | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HFC-245fa | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| HFC-365mfc | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| Unspecified mix of HFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Emissions of PFCs - (kt CO2 equivalent)** | 6,477.23 | 5,371.79 | 4,985.57 | 4,048.63 | 3,463.01 | 3,490.09 | 3,522.39 | 3,839.27 | 2,986.04 | 2,534.66 |
| $CF_4$ | 0.77 | 0.64 | 0.59 | 0.48 | 0.41 | 0.42 | 0.42 | 0.46 | 0.36 | 0.30 |
| $C_2F_6$ | 0.06 | 0.05 | 0.05 | 0.04 | 0.03 | 0.03 | 0.03 | 0.04 | 0.03 | 0.02 |
| $C_3F_8$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $C_4F_{10}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| c-$C_4F_8$ | 0.00 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA |
| $C_5F_{12}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $C_6F_{14}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| C10F18 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| c-C3F6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Unspecified mix of PFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Emissions of SF6 - (kt CO2 equivalent)** | 2,357.71 | 2,411.40 | 2,904.60 | 2,558.20 | 3,016.90 | 2,652.53 | 2,339.91 | 1,417.36 | 1,526.74 | 726.19 |
| $SF_6$ | 0.10 | 0.11 | 0.13 | 0.11 | 0.13 | 0.12 | 0.10 | 0.06 | 0.07 | 0.03 |
| **Emissions of NF3 - (kt CO2 equivalent)** | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.19 | 0.18 |
| NF3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Note:** All footnotes for this table are given on sheet 3.

Table 1(d) CAN_BR2_v2.0

**Emission trends (HFCs, PFCs and $SF_6$)**

**(Sheet 3 of 3)**

| *GREENHOUSE GAS SOURCE AND SINK CATEGORIES* | *2008* | 2009 | 2010 | 2011 | 2012 | 2013 | Change from base to latest reported year |
|---|---|---|---|---|---|---|---|
| | | | | | | | % |
| **Emissions of HFCs and PFCs - (kt CO2 equivalent)** | 8,119.31 | 8,166.36 | 7,604.74 | 7,611.52 | 7,954.70 | 8,018.84 | -5.98 |
| **Emissions of HFCs - (kt CO2 equivalent)** | 5,517.44 | 5,655.63 | 5,745.55 | 5,924.14 | 6,156.05 | 6,401.74 | 559.58 |
| HFC-23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -99.14 |
| HFC-32 | 0.04 | 0.07 | 0.09 | 0.10 | 0.13 | 0.15 | |
| HFC-41 | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | NO, NA | |
| HFC-43-10mee | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| HFC-125 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.55 | |
| HFC-134 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| HFC-134a | 1.79 | 1.77 | 1.75 | 1.75 | 1.75 | 1.77 | |
| HFC-143 | NA | NA | NA | NA | NA | NA | |
| HFC-143a | 0.34 | 0.35 | 0.36 | 0.37 | 0.38 | 0.39 | |
| HFC-152 | NA | NA | NA | NA | NA | NA | |
| HFC-152a | 0.23 | 0.14 | 0.14 | 0.23 | 0.49 | 0.53 | |
| HFC-161 | NA | NA | NA | NA | NA | NA | |
| HFC-227ea | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | |
| HFC-236cb | NA | NA | NA | NA | NA | NA | |
| HFC-236ea | NA | NA | NA | NA | NA | NA | |
| HFC-236fa | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| HFC-245ca | NA | NA | NA | NA | NA | NA | |
| HFC-245fa | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| HFC-365mfc | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Unspecified mix of HFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | |
| **Emissions of PFCs - (kt CO2 equivalent)** | 2,601.87 | 2,510.73 | 1,859.18 | 1,687.38 | 1,798.64 | 1,617.10 | -78.60 |
| $CF_4$ | 0.31 | 0.30 | 0.22 | 0.20 | 0.21 | 0.19 | -78.94 |
| $C_2F_6$ | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -76.01 |
| $C_3F_8$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| $C_4F_{10}$ | NA | NA | NA | NA | NA | NA | |
| c-$C_4F_8$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| $C_5F_{12}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| $C_6F_{14}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NO, NA | |
| C10F18 | NA | NA | NA | NA | NA | NA | |
| c-C3F6 | NA | NA | NA | NA | NA | NA | |
| Unspecified mix of PFCs(4) - (kt $CO_2$ equivalent) | NA | NA | NA | NA | NA | NA | |
| **Unspecified mix of HFCs and PFCs - (kt CO2 equivalent)** | NA | NA | NA | NA | NA | NA | |
| **Emissions of SF6 - (kt CO2 equivalent)** | 644.35 | 373.87 | 438.86 | 395.47 | 437.23 | 432.84 | -86.59 |
| $SF_6$ | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -86.59 |
| **Emissions of NF3 - (kt CO2 equivalent)** | 0.17 | 0.16 | 0.15 | 0.15 | 0.15 | 0.15 | -53.45 |
| NF3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -53.45 |

*Abbreviations*: CRF = common reporting format, LULUCF = land use, land-use change and forestry.

[a] The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

[c]Enter actual emissions estimates. If only potential emissions estimates are available, these should be reported in this table and an indication for this be provided in the documentation box. Only in these rows are the emissions expressed as CO2 equivalent emissions.

[d]In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.)

***Custom Footnotes***

***Documentation Box:***

Table 2(a) CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: base year**[a]

| *Party* | *Canada* | |
|---|---|---|
| Base year /base period | 2005 | |
| Emission reduction target | % of base year/base period | % of 1990 [b] |
| | 17.00 | 1.50 |
| Period for reaching target | BY-2020 | |

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] Optional.

Table 2(b) CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: gases and sectors covered**[a]

| *Gases covered* | | *Base year for each gas (year):* |
|---|---|---|
| $CO_2$ | | 2005 |
| $CH_4$ | | 2005 |
| $N_2O$ | | 2005 |
| HFCs | | 2005 |
| PFCs | | 2005 |
| $SF_6$ | | 2005 |
| $NF_3$ | | 2005 |
| Other Gases (specify) | | |
| Sectors covered[b] | Energy | Yes |
| | Transport[f] | Yes |
| | Industrial processes[g] | Yes |
| | Agriculture | Yes |
| | LULUCF | Yes |
| | Waste | Yes |
| | Other Sectors (specify) | |

*Abbreviations* : LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] More than one selection will be allowed. If Parties use sectors other than those indicated above, the explanation of how these sectors relate to the sectors defined by the IPCC should be provided.

[f] Transport is reported as a subsector of the energy sector.

[g] Industrial processes refer to the industrial processes and solvent and other product use sectors.

Table 2(c) CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: global warming potential values (GWP)**[a]

| *Gases* | *GWP values* [b] |
|---|---|
| $CO_2$ | 4th AR |
| $CH_4$ | 4th AR |
| $N_2O$ | 4th AR |
| HFCs | 4th AR |
| PFCs | 4th AR |
| $SF_6$ | 4th AR |
| $NF_3$ | 4th AR |
| Other Gases (specify) | |

*Abbreviations*: GWP = global warming potential

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] Please specify the reference for the GWP: Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) or the Fourth Assessment Report of the IPCC.

Table 2(d) CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: approach to counting emissions and removals from the LULUCF sector**[a]

| | | |
|---|---|---|
| **Role of LULUCF** | LULUCF in base year level and target | Included |
| | Contribution of LULUCF is calculated using | |

*Abbreviation* : LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

Table 2(e)I CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: market-based mechanisms under the Convention**[a]

| *Market-based mechanisms under the Convention* | *Possible scale of contributions (estimated kt $CO_2$ eq)* |
|---|---|
| CERs | |
| ERUs | |
| AAUs[i] | |
| Carry-over units[j] | |
| Other mechanism units under the Convention (specify)[d] | |

*Abbreviations*: AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[d] As indicated in paragraph 5(e) of the guidelines contained in annex I of decision 2/CP.17 .

[i] AAUs issued to or purchased by a Party.

[j] Units carried over from the first to the second commitment periods of the Kyoto Protocol, as described in decision 13/CMP.1 and consistent with decision 1/CMP.8.

Table 2(e)II CAN_BR2_v2.0

**Description of quantified economy-wide emission reduction target: other market-based mechanisms**[a]

| *Other market-based mechanisms* | *Possible scale of contributions* |
|---|---|
| *(Specify)* | *(estimated kt $CO_2$ eq)* |
| | |
| | |

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

**Description of quantified economy-wide emission reduction target: any other information**[a,b]

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] This information could include information on the domestic legal status of the target or the total assigned amount of emission units for the period for reaching a target. Some of this information is presented in the narrative part of the biennial report.

***Custom Footnotes***

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Reduction of CO2 Emissions from the Coal-Fired Generation of Electricity Regulations* | Other (Electricity) | $CO_2$ | To reduce GHG emissions from coal-fired electricity generation | Regulatory | Implemented | Regulations under the Canadian Environmental Protection Act, 1999 apply a performance standard to new coal-fired electricity generation units and to existing units once they reach a defined period of operating life (generally 50 years). The performance standard of 420 tonnes of CO2 per gigawatt hour came into force July 1, 2015. GHG reductions are estimated at 3,100 kt of CO2 emissions in 2020, and 24,300 Kt in 2030, relative to 2005 levels. The regulations are projected to result in a net reduction of approximately 214 Mt CO2 eq of GHG over the period 2015–2035. | 2015 | Environment and Climate Change Canada | | 3,100 |
| ecoENERGY for Renewable Power program | Other (Electricity) | $CO_2$ | To reduce GHG emissions by increasing renewable electricity supply in Canada | Economic | Implemented | The program offers an incentive of 1¢ per kilowatt-hour of electricity produced over a period of ten years from a qualifying low-impact renewable energy project built before March 31, 2011. | 2007 | Natural Resources Canada | | 6,240 |
| British Columbia Clean Energy Act: Clean or renewable electricity requirement* | Other (Electricity) | $CH_4$, $CO_2$ | To maintain low carbon electricity supply | Regulatory | Implemented | The Clean Energy Act commits that British Columbia will generate at least 93% of their electricity from clean or renewable sources. It is estimated that this measure will reduce emissions by 3,000 to 3,700 kt in 2020. | 2010 | British Columbia | | 3,000 |
| British Columbia Clean Energy Act: Demand Side Management | Other (Electricity) | $CO_2$ | Reduce electricity demand | Regulatory | Implemented | BC Hydro is required to meet 66% of its incremental electricity demand through demand side management. Approximately 130 kt CO2 eq (at emissions intensity of 13 tonnes/GWh) will be reduced in 2020. | 2010 | British Columbia | | 130 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| SaskPower Electricity Initiatives | Other (Electricity) | $CO_2$ | To reduce GHG emissions from fossil fuel electricity generation and enhance the supply of renewables | Voluntary Agreement | Implemented | SaskPower has implemented several initiatives to reduce emissions from fossil fuel electricity generation and enhance the supply of renewables: • SaskPower 20+ Year Supply Plan (2012): SaskPower's current plan is to replace five conventional coal-burning generating units with either clean coal technology or natural gas generation. Cumulative net CO2 reductions from meeting compliance obligations are estimated to be 1818 kt inclusive to the end of 2020 and 25 836 kt inclusive to the end of 2030. • Renewables Plan (2015): Programs for flare gas power generation, net metering, small power producer reduce the generation demand that would otherwise result in additional emissions. In 2015, Saskatchewan announced that it would have a target of 50% of its electricity generation capacity from renewable energy by 2030. • Customer Service Program: SaskPower Demand Side Management promotes energy efficiency. It is estimated that ~353 kt CO2e will have been offset during the period 2005 to 2020 and 626 kt CO2 eq will have been offset during the period 2005 to 2030. • 10-year Wind Plan (2007): SaskPower's plan is to implement wind power by 100 MW segments in 2019, 2021 and 2023. | 2007 | Saskatchewan | | 260 |
| Manitoba Emissions Tax on Coal and Petroleum Coke Act* | Other (Electricity) | | To reduce GHG emissions from coal and petroleum coke | Regulatory | Implemented | Ban on the use of petroleum coke for space heating effective December 31, 2012. Coal users must submit plans for converting away from coal in June of 2014, plans must be implemented by June 2017. Funds from Manitoba's emissions tax on coal are redirected to support transition from coal to biomass. Manitoba plans to phase out its last remaining coal facility by 2019. | 2013 | Manitoba | | NE |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Manitoba Coal and Petroleum Coke Heating Ban Regulation | Other (Electricity) | | To reduce GHG emissions from coal and petroleum coke | Regulatory | Implemented | Ban on the use of petroleum coke for space heating effective December 31, 2012. Coal users must submit plans for converting away from coal in June of 2014, plans must be implemented by June 2017. Funds from Manitoba's emissions tax on coal are redirected to support transition from coal to biomass. | 2013 | Manitoba | | NE |
| Manitoba Coal Fired Emergency Operations Regulation | Other (Electricity) | $CO_2$ | To restrict Manitoba Hydro's use of coal | Regulatory | Implemented | This regulation restricts Manitoba Hydro's use of coal to generate power to emergency operations. Manitoba Hydro's last remaining coal-fired facility is located at Brandon Unit # 5 in Brandon, Manitoba. | 2009 | Manitoba | | NE |
| Ontario Coal Phase-Out* | Other (Electricity) | $CO_2$ | To eliminate coal-fired electricity generation and the associated GHG emissions | Regulatory | Implemented | Ontario eliminated coal-fired electricity generation in April 2014. Ontario replaced coal with increased conservation and cleaner energy sources like natural gas, refurbished nuclear, solar, biomass and wind. The Ontario government estimates that this policy reduced GHG emissions from the electricity sector by up to 30 Mt annually since 2003. Ontario enshrined its commitment in the Cessation of Coal Use Regulation (2007), which set an end date of December 31, 2014, and the Ending Coal For Cleaner Air Act (2015) which stipulates that coal cannot be used to generate electricity in Ontario. | 2007 | Ontario | | 30,000 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Feed-In Tariff Program and Large Renewable Procurement* | Other (Electricity) | | To support the development of renewable and clean energy sources | Economic | Implemented | Ontario's Feed-in Tariff program encourages and promotes greater use of renewable energy sources, including on-shore wind, solar photovoltaic, bioenergy and hydroelectricity for electricity generating projects in Ontario. This program provides long-term fixed price electricity procurement contracts for eligible renewable energy projects, under a standard set of rules. As of September 30, 2015, more than 3,200 Feed-in Tariff projects had received contracts, representing over 4,600 megawatts (MW) of capacity. In 2014, Ontario launched a new competitive process, known as Large Renewable Procurement, for procuring electricity from renewable projects generally greater than 500 kW. The first round of Large Renewable Procurement had a procurement target of 565 MW, and was open to onshore wind, solar photovoltaic, waterpower and bioenergy projects. The Large Renewable Procurement process introduced strong competition between developers of large renewable projects. The contract offers represent 454.885 MW of clean renewable energy capacity, which contributes to meeting the province's renewable energy targets, and include: • 5 wind contracts totalling 299.5 MW, with a weighted average price of 8.59 cents/kWh • 7 solar contracts totalling 139.885 MW, with a weighted average price of 15.67 cents/kWh • 4 hydroelectric contracts totalling 15.5 MW, with a weighted average price of 17.59 cents/kWh. | 2009 | Ontario | | NE |
| New Brunswick - Electricity Act Renewable Portfolio Standard Regulation* | Other (Electricity) | | To achieve 40% of renewable energy | Regulatory | Planned | The Electricity from Renewable Resources Regulation requires 40% of electricity supply to be from renewable sources by 2020, consistent with the Energy Blueprint Policy. | 2014 | New Brunswick | | 630 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Nova Scotia Electricity Sector Regulations* | Other (Electricity) | $CO_2$, HFCs, $CH_4$, $N_2O$, $SF_6$, PFCs | To reduce GHG emissions from the electricity sector and to increase the share of clean energy in the province's energy use | Regulatory | Implemented | Nova Scotia has implemented two separate regulations to address emissions from the electricity sector and enhance the supply of renewables, which are together expected to result in emission reductions of 2,500 kt C02eq in 2020: • Greenhouse Gas Emissions Regulations: Nova Scotia has implemented a mandatory declining cap on GHG emissions from electricity generation facilities. From a baseline of 10.2 MT (2007) the decreases are scheduled in progressive steps so the emissions will decline to 7,500 kt or below by 2020 and further to 4,500 kt or below by 2030. Total electricity GHG reduction in Nova Scotia for 2007 to 2030 will be at least 5,500 kt CO2 eq. • Renewable Electricity Regulations: These Regulations require 25% of electricity supply to be generated from renewable sources by 2015 and 40% by 2020. This will involve the adoption of a diverse mix of energy sources including wind, tidal, solar, hydro and bioenergy. | 2009, 2010 | Nova Scotia | | 2,500 |
| Nova Scotia Electricity Efficiency Regulations* | Other (Electricity) | | To use energy more efficiently | Regulatory | Implemented | Electricity Efficiency and Conservation Restructuring Act (2014): This Act requires Nova Scotia Power to purchase efficiency resources whenever they are lower cost than producing power. Efficiency resources are provided by an independent franchise ("Efficiency Nova Scotia" or ENS) for commercial, industrial, and residential consumers. Targets for electricity efficiency are guided by a periodic Integrated Resource Plan required by the Utility Board. No estimate for mitigation impact is provided because GHG reductions achieved through electricity efficiency are included in the GHG reduction estimates provided for the Nova Scotia Greenhouse Gas Emissions Regulations. | 2009, 2014 | Nova Scotia | | 1,300 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Newfoundland and Labrador Lower Churchill Project (Muskrat Falls)* | Other (Electricity) | $CO_2$, $CH_4$, $N_2O$ | To increase the share of clean energy in the province's energy use | Economic | Planned | Currently under construction, the 824 megawatt Muskrat Falls hydroelectric project will displace oil-fired electricity generation representing over 10% of the province's GHG emissions. The second phase of the Lower Churchill Project includes the 2200 MW Gull Island Project that has received federal and provincial environmental approval. The project will also contribute to an estimated GHG reduction of approximately 1 Mt per year through a purchase power agreement and that additional exports sales may also result in 1 Mt reduction per year. | 2018 | Newfoundland and Labrador | | 1,200 |
| Prince Edward Island Renewable Energy Act | Other (Eletricity) | | To pursue cleaner sources of energy and reduce reliance on imported energy | Regulatory | Implemented | The Renewable Energy Act requires utilities to acquire at least 15% of electrical energy from renewable sources by 2010 (Renewable Portfolio Standard). The province has achieved this target. Currently about 25% of PEI's electricity consumption is sourced from on-island wind farms. The Renewable Energy Act also established minimum purchase price utilities must pay for power produced by large-scale renewable energy generators and makes it economically feasible for Island homeowners, small businesses or farmers who have an interest in generating their own electricity to install small-scale generating systems through net-metering. | 2005 | Prince Edward Island | | NE |
| Northwest Territories Arctic Energy Alliance | Other (Electricity) | | To educate, raise awareness and help residents of the Northwest Territories adopt energy saving best practices | Education | Implemented | Non-profit Arctic Energy Alliance provides free information, advice, incentives and answers to questions from residents of the Northwest Territories on energy efficiency and hosts annual Energy Actions Awards. The Arctic Energy Alliance also conducts energy audits to educate residents on how to reduce home energy consumption. | 2007 | Northwest Territories | | NE |
| Yukon Independent Power Production Policy | Other (Electricity) | $CO_2$, $CH_4$, $N_2O$ | Reduced diesel consumption for electricity and heat generation | Other (Economic) | Implemented | Large scale power producers: The Government of Yukon has adopted the Independent Power Production Policy which aims at enabling independent, non-utility electricity producers to sell electricity to Yukon's two public utilities through renewable energy technologies, such as wind power, micro-hydro, biomass and solar electric (or photovoltaic) systems. | 2015 | Yukon | | NE |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Yukon Microgeneration Policy | Other (Electricity) | $CO_2$, $CH_4$, $N_2O$ | Reduced diesel consumption for electricity and heat generation | Other (Economic) | Implemented | Small scale power producers: The Government of Yukon's Microgeneration Policy enables individuals and businesses to install electrical generating systems and connect them to the grid. The electricity generated is consumed on site and any surplus can be sold into the grid. Since it was announced in October 2013, 12 microgeneration systems have been installed which are expected to generate 41,000 kWh per year. | 2014 | Yukon | | 41 |
| Light-Duty Vehicle GHG Regulations: Phase 1 and 2* | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from the on-road transportation sector | Regulatory | Implemented | The regulations establish progressively stringent GHG emission standards to new passenger automobiles and light trucks manufactured or imported into Canada for model years 2011–2016. The regulations were amended in 2014 to extend progressively stringent GHG emissions standards to include 2017-2025 model years. | 2011 | Environment and Climate Change Canada | | 13,000 |
| Heavy Duty Vehicle GHG Regulations* | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from the on-road transportation sector | Regulatory | Implemented | These regulations will apply increasingly stringent annual GHG emissions standards to new on-road heavy-duty vehicles and engines imported or manufactured in Canada for the years 2014–2018. | 2014 | Environment and Climate Change Canada | | 3,000 |
| Federal Renewable Fuels Regulations* | Other (Transportation) | $CO_2$ | To regulate renewable content in fuel | Regulatory | Implemented | Regulations require an average 5% renewable fuel content for gasoline, and 2% renewable fuel content in diesel fuel.<br>Provinces such as Alberta, British Columbia and Ontario also have renewable fuel regulations in their respective jurisdictions. For example, these measures include the Alberta Renewable Fuel Standard Regulation, British Columbia Renewable and Low Carbon Fuel Requirements Regulation, Saskatchewan Renewable Diesel Program, Ontario Ethanol in Gasoline Regulation and Ontario renewable fuel requirements for gasoline and diesel. Certain other provinces have established incentive programs for renewable fuels, including the Manitoba Biofuel Production Incentive and the Ontario Ethanol Growth Fund. | 2010 | Environment and Climate Change Canada | | 4,000 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Dioxide Standards for Aviation | Other (Transportation) | $CO_2$ | To reduce GHG emissions from new airplanes | Regulatory | Planned | Canada is participating in the development of a new international CO2 standard for new airplanes at the International Civil Aviation Organization. Canada plans to adopt the standard once it has been finalized and approved by the International Civil Aviation Organization. | TBD | Transport Canada | | NE |
| Canada's Action Plan to Reduce GHG Emissions from Aviation | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from the aviation sector | Voluntary Agreement | Implemented | A comprehensive voluntary approach that includes all segments of the Canadian aviation sector, from airlines and airports to air traffic navigation and aircraft manufacturers, the Action Plan sets an aspirational goal to improve fuel efficiency from a 2005 baseline by an average annual rate of at least 2% per year until 2020. The Action Plan forms the basis for the Government of Canada's response to the International Civil Aviation Organization's Assembly Resolution A37-19, which encouraged Member States to submit national action plans by June 2012 setting out measures each state is taking or will take to address international aviation emissions. | 2012 | Transport Canada | | NE |
| Regulatory Cooperation Council Locomotive Emissions Initiative | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from locomotives operating in Canada and the U.S. | Voluntary Agreement | Adopted | The Locomotive Emissions Initiative is a joint voluntary approach with the U.S. Environmental Protection Agency on the development of potential strategies to reduce GHG emissions from locomotives. The initiative involves work towards a Canada–U.S. industry-government voluntary action plan to reduce greenhouse gas emissions from locomotives. | TBD | Transport Canada | | NE |
| Memorandum of Understanding between Transport Canada and Rail Industry for Reducing Locomotive Emissions | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from railway locomotives operated by Canadian railway companies in Canada | Voluntary Agreement | Implemented | A Canadian industry-government Memorandum of Understanding, for the 2011-2015 time period, which includes measures, targets and actions to reduce GHG emission intensity from rail operations and help protect the health and environment for all Canadians as well as address climate change. The Memorandum was signed in April 2013. | 2011 | Transport Canada | | NE |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Energy Efficiency Requirements for Marine Vessels | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from international shipping | Regulatory | Implemented | Canada has enacted national regulations to implement new energy efficiency requirements negotiated under Annex VI of the International Convention for the Prevention of Pollution from Ships administered by the International Maritime Organization. The regulations require all vessels of 400 gross tonnage and above to have a Ship Energy Efficiency Management Plan on board, stating how each vessel will increase energy efficiency to reduce greenhouse gas emissions. Additionally, under the regulations, new vessels of 400 gross tonnages and above must meet Energy Efficiency Design Index requirements that will increase energy efficiency by 30% by 2025. The Energy Efficiency Design Index requirements do not apply to domestic vessels voyaging only in Canadian waters, as it was found that applying the international standards to these vessels, which are smaller and use shorter routes, would result in increased emissions. | 2013 | Transport Canada | | 366 |
| Energy Efficiency Requirements for Canadian Marine Vessels that Serve Domestic Trade | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from domestic shipping | Regulatory | Planned | New Canadian ships that serve domestic trade within Canada are currently exempt from the International Maritime Organization's Energy Efficiency Design Index requirements. A technical review found that when the international Energy Efficiency Design Index standard is applied to Canadian ships on domestic service, which are smaller and use shorter routes, the results would reduce the energy efficiency of these ships and increase their CO2 emissions. The technical review recommended ways to apply the Energy Efficiency Design Index to yield the intended results; Transport Canada plans to implement adjusted domestic Energy Efficiency Design Index standards in the future. | TBD | Transport Canada | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Shore Power Technology for Ports Program | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from docked ships | Economic | Implemented | The Shore Power Technology for Ports Program provides cost-shared funding for the deployment of marine shore power technology at Canadian ports. This technology allows ships to plug into the local electrical grid to power the vessel instead of using their auxiliary diesel engines when docked. | 2011 | Transport Canada | | 7 |
| ecoTECHNOLOGY for Vehicles Program | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To support the development of low-emission vehicle regulations, standards, codes, protocols, guidelines, and related instruments | Other (Information) | Implemented | The ecoTECHNOLOGY for Vehicles program tests, evaluates, and provides expert technical information on the environmental and safety performance of advanced light-duty vehicle and heavy-duty vehicle technologies. The ecoTECHNOLOGY program shares technical findings to inform the development of vehicle emissions regulations; to guide the proactive development of new or revised safety regulations, standards, codes and guidelines; and to support the development of non-regulatory industry codes and standards to help integrate new vehicle technologies into Canada. The ecoTECHNOLOGY program is not expected to directly result in emission reductions; however, it will inform the development of Canada’s light-duty vehicle and heavy-duty vehicle GHG emission regulations and help more low-emission vehicle technologies to enter the Canadian market. | 2011 | Transport Canada | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Truck Reservation System Program | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions associated with port-related trucking activity at Canada's major container ports | Economic | Implemented | The Truck Reservation Systems Program provides funding to projects at Canada's major container ports for the deployment of technologies and practices that improve port-trucking efficiency and environmental performance (e.g., reducing truck idling, wait times at port terminals, and congestion on access roads).<br>The Truck Reservation System Program is currently working with project proponents (notably Canadian Port Authorities), to gather more complete data on truck movements within port areas to better measure GHG emissions on an ongoing basis and also in certain regions to set a baseline. Specific GHG emission reduction targets will be set throughout the course of individual projections. | 2013 | Transport Canada | | NE |
| British Columbia Clean Energy Vehicles Program | Other (Transportation) | | To reduce GHGs in transportation | Economic | Implemented | The $14.3 million program from December 2011-March 2014 provided incentives for eligible clean energy vehicles and included deployment of charging point infrastructure for these vehicles. A $10.6 million phase 2 of the Clean Energy Vehicles Program began in April 2015 with similar incentives. The program received another extension in March, 2016 for $6.9 million. | 2011 | British Columbia | | 18 |
| British Columbia's Renewable and Low Carbon Fuel Requirements* | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | Reduce GHG emitted from fuels, on lifecycle basis | Regulatory | Implemented | The Regulation requires a minimum renewable fuel content for the fuel supplied in British Columbia (5% for gasoline, 4% for diesel) and requires fuel suppliers to reduce the average carbon intensity of transportation fuels by 10% by 2020. | 2008 | British Columbia | | NE |
| Alberta GreenTRIP | Other (Transportation) | | To increase the accessibility and use of public transit in Alberta | Economic | Implemented | This is a $2 billion one-time capital funding program that supports new and expanded public transit in Alberta. To date, 13 projects are receiving funding. | 2010 | Alberta | | 50 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Metrolinx: The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area (Ontario)* | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | A range of goals, including but not limited to increasing range of options for transportation, safe and secure mobility, and a smaller carbon footprint and lower GHG emissions | Economic | Implemented | Released in 2008, The Big Move is a 25-year Regional Transportation Plan that aims to improve regional transportation, bolster global competitiveness, protect the environment and enhance quality of life in the Greater Toronto and Hamilton Area. There are already over $16 billion worth of transit expansion and improvement projects underway in the Greater Toronto and Hamilton Area in support of The Big Move.. Expansion of the existing transit network and the implementation of new transit projects/initiatives will result in GHG reductions by managing congestion and attracting new transit riders who would otherwise drive. In addition to these earlier investments, the Province is committed to building an integrated transportation network across the province through the Moving Ontario Forward plan, which will invest $31.5 billion over 10 years for transit, transportation and other priority infrastructure projects across Ontario. Emission reductions for Ontario's transportation sector are combined. Combined estimated mitigation impact of 3.9 Mt applies to initiatives related to: The Big Move Regional transportation plan and Growth Plan for the Greater Golden Horseshoe; passenger vehicle efficiency regulations; truck speed limiter regulation; municipal hybrid bus purchase and Green Commercial Vehicle Program; Ontario ethanol regulation; other related transportation initiatives. | 2008 | Ontario | | 3,900 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Electric Vehicle Incentive Program | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | To accelerate the uptake of electric vehicles in the province | Economic | Implemented | The Electric Vehicle Incentive Program allows Ontario consumers and businesses to apply for an incentive towards the purchase or lease of eligible, new plug-in hybrid electric or battery electric vehicles. The value of the incentive is based on the vehicle's battery capacity and includes the following: • Vehicles with a battery capacity from 5 to 16 kilowatt-hours are eligible for incentives ranging between $6,000 to $10,000 based on the battery capacity of the vehicle. • Vehicles with a battery capacity of larger than 16 kWh are also eligible for an additional $3,000 incentive. • Vehicles with five or more seats are also eligible for an additional $1,000 incentive. • Vehicles with a Manufacturer's Suggested Retail Price of $75,000 to $150,000 as of the date of purchase or lease are eligible for a maximum incentive value of $3,000. • Purchase incentives are not to exceed 30% of the Manufacturer's Suggested Retail Price. Applicants that received an Electric Vehicle Incentive Program incentive are eligible to apply under the Electric Vehicle Charging Incentive Program for up to $1000 towards the purchase and installation of an eligible Level 2 charging station. | 2010 | Ontario | | NE |
| Ontario's Drive Clean program | Other (Transportation) | $CH_4$, $N_2O$, $CO_2$ | To reduce smog-causing pollutants from vehicles | Regulatory | Implemented | Ontario's Drive Clean Program is a mandatory vehicle emissions inspection and maintenance program for light-duty and heavy-duty vehicles. Light-duty vehicles registered in the program area are required to be tested biennially, and all heavy-duty vehicles registered in the province must be tested annually unless a biennial testing incentive is earned.<br><br>Carbon dioxide emissions are reduced by improved vehicle fuel efficiency from program-mandated repairs. | 1999 | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Transportation Electrification Initiatives* | Other (Transportation) | $CO_2$, $CH_4$ | Reduce GHG emissions in the transportation sector. Accelerate the deployment of electric vehicles and associated infrastructure | Economic | Implemented | Transportation electrification strategy: In terms of transportation electrification, the current policies in place aim to place significant emphasis on electric transportation, including light vehicles and electric public transportation, and promote the development of the electric industrial sector. Targets for 2020: - Reach 100,000 electric vehicles and rechargeable hybrids; - Reduce the number of litres of fuel consumed annually in Quebec by 66 million. - Have 5,000 jobs in the electric vehicle sector and bring about investments of 500 million dollars. • The Drive Electric Program offers a rebate on a purchase or lease to individuals, businesses, non-profit organizations and Quebec municipalities who wish to acquire an eligible vehicle. The rebate granted varies from $4,000 to $8,000 for fully electric vehicles and rechargeable hybrids. Financial aid is also available to install a 240-volt residential recharge station at their home. • The Branché au travail Program offers reimbursement for the installation of recharge stations at work for companies, municipalities or organizations. The financial assistance offered corresponds to 75% of admissible expenses or $15,000, whichever is less. • In addition, the Electric Circuit program is Canada’s first public charging network for electric vehicles, offering 240-volt and 400-volt charging stations. | 2012 | Quebec | | 150 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Eco trucking program | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | Reduce the GHG emissions from the transportation sector. | Economic | Implemented | This program aims to promote the use of equipment and technology to improve energy efficiency while reducing greenhouse gases in the transportation of goods.<br>The Eco-trucking program is divided into four components:<br>(1)Technology acquisition: Through this component, the program financially supports applicants to allow them to acquire a technology that has been evaluated and is on the list of technologies eligible for funding.<br>(2)Approval of a technology: The program financially supports applicants to allow them to approve technology so it can be on the list of technologies eligible for financing.<br>(3)Demonstration of a technology: The program aims to increase the means available to companies in the transportation of goods in order to reduce their greenhouse gas emissions. To do this, it supports the completion of various projects related to trucking that show potential in reducing greenhouse gas emissions.<br>(4)Logistics: The program supports the completion of projects that will improve the logistics of companies in the transportation of goods logistics with the objective of reducing greenhouse gas emissions. | 2013 | Quebec | | NE |
| Quebec energy efficiency program for marine, air and railway transportation | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | Reduce GHG emissions in the transportation sector | Economic | Implemented | This program aims to reduce or avoid GHG emissions by improving the energy efficiency of organizations and companies that use marine, air or railway transportation services, particularly through the use of more efficient transportation materials and equipment and the use of energies that emits less GHG. | 2013 | Quebec | | NE |
| Quebec program aiming to reduce or avoid greenhouse gas emissions through the development of intermodal transportation | Other (Transportation) | $CO_2$, $CH_4$, $N_2O$ | Reduce GHG emissions in the transportation sector. | Economic | Implemented | The program aims to reduce or avoid GHG emissions generated by the transportation of goods or people by installing intermodal projects and by promoting marine and railway services. | 2013 | Quebec | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec regulation on the activation of speed limiters with a maximum of 105 km/h | Other (Transportation) | $CO_2$ | Reduce GHG emissions of heavy vehicles | Regulatory | Implemented | Since January 1, 2009, serial speed limiters must be activated and regulated in such a way as to prevent vehicles from exceeding 105 km/h. This measure is for heavy vehicle operators from anywhere whose trucks use the Quebec roadway network. | 2009 | Quebec | | NE |
| Regulations to address methane in the oil and gas sector | Other (Oil and Gas) | $CH_4$ | To reduce emissions from methane in the oil and gas sectors in Canada | Regulatory | Planned | In a Joint Statement, released on March 10, 2016, Canada and the U.S. committed to reducing methane emissions from the oil and gas sector by 40-45 percent below 2012 levels by 2025. To implement this commitment, Canada will introduce federal regulations to reduce venting and fugitive methane emissions from existing and new oil and gas sources. | TBD | Environment and Climate Change Canada | | NE |
| British Columbia Flaring and Venting Reduction Guideline | Other (Oil and Gas) | $CH_4$ | To reduce flaring and venting in the oil and gas sector; routine flaring eliminated | Regulatory | Implemented | Applies to the flaring, incineration and venting of natural gas at well sites, facilities and pipelines. The 2020 estimate of mitigation impact for this regulation assumes a drop of 80 million cubic meters of flaring annually. | 2010 | British Columbia | | 125 |
| British Columbia Liquefied Natural Gas Benchmark | Other (Oil and Gas) | $CO_2$, $CH_4$ | To reduce GHG emissions | Fiscal | Implemented | The LNG facilities are required to meet the emissions intensity benchmark of 0.16 t CO2e/t LNG either through adopting more efficient technologies, using clean energy, investing in offsets, or purchasing “funded units” at CA$25/tonne that contribute to clean technologies. Three regulations brought the Greenhouse Gas Industrial Reporting and Control Act into force, effective January 1, 2016. These include: Greenhouse Gas Emission Reporting Regulation, GHG Emission Control Regulation and GHG Emission Administrative Penalties and Appeals Regulation. The 2020 mitigation estimate takes into consideration each 10 Mt facility with a business-as-usual emissions intensity of the global average (0.25 t CO2e/t LNG) and the 0.16 t CO2e/t LNG benchmark for British Columbia. | 2013 | British Columbia | | 900 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Alberta Carbon Capture and Storage Investments* | Other (Oil and Gas) | $CO_2$ | To fund carbon capture and storage projects in Alberta | Economic | Implemented | Two large-scale carbon capture and storage demonstration projects currently under development will capture C02 from upgrader facilities: the Quest project and the Alberta Carbon Trunk Line project. Beginning in 2015, the Quest project is expected to capture and store over 1Mt C02 per year from Shell's Scotford Oil Sands Upgrader. In addition, the Alberta Carbon Trunk Line project will collect C02 from the North West Redwater Oil Sands Upgrader which will then be sold for injection into mature oil fields, after which it will be permanently stored. This project is expected to capture up to 1.2 Mt of C02 per year. To date, the Government of Alberta has invested $1.3 billion in carbon capture and storage technologies. The 2020 mitigation estimate for these investments are included under the Specified Gas Emitters Regulation. | TBD | Alberta | | 2,760 |
| Alberta Directive 060 Upstream Petroleum Industry Flaring, Incinerating and Venting* | Other (Oil and Gas) | $CH_4$, $CO_2$ | To reduce flaring and venting in the oil and gas sector, goal of working toward elimination of all non-routine flaring and venting | Regulatory | Implemented | Requirements have been developed in consultation with the Clean Air Strategic Alliance to eliminate or reduce the potential and observed impacts of these activities and to ensure that public safety concerns and environmental impacts are addressed before beginning to flare, incinerate, or vent. Directive 060 requirements are also aligned to ensure compliance with Alberta Environment and Sustainable Resource Development's Alberta Ambient Air Quality Objectives and Guidelines. | 1999 | Alberta | | 4,000 |
| Saskatchewan: Directive S-10 Saskatchewan Upstream Petroleum Industry Associated Gas Conservation Directive & Directive S-20 Upstream Flaring and Incineration Requirements | Other (Oil and Gas) | $CH_4$ | To reduce flaring and venting in the oil and gas sector. Goal is to eliminate all routine flaring and venting (>900 m3/day). | Regulatory | Implemented | Applies to the flaring, incineration and venting of natural gas at oil well sites and facilities. This regulatory directive is supported by Minister's Order. Start date for new wells and facilities was July 1, 2012 for new wells and facilities and July 1, 2015 for wells and facilities existing prior to 2012. | 2012 | Saskatchewan | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Manitoba: Implementation of World Bank Voluntary Standard for Gas Flaring | Other (Oil and Gas) | $CH_4$ | Reduce flaring and venting of gas | Voluntary Agreement | Implemented | The Voluntary Standard for Global Gas Flaring and Venting Reduction provides guidance on how to achieve reductions in flaring and venting of gas associated with crude oil production worldwide. The parties supporting this Standard voluntarily chose to endorse the principles laid out in the Standard and to work in cooperation with Global Gas Flaring Reduction Partners to seek solutions to overcome barriers that result in gas flaring and venting. In September 2005, Manitoba endorsed the Global Gas Flaring Reduction. The Department of Since, Technology, Energy and Mines will be the province's lead agency for monitoring and reporting on flaring and venting in Manitoba's upstream oil and gas sector. | 2005 | Manitoba | | NE |
| Newfoundland and Labrador: Implementation of World Bank Voluntary Standard for Gas Flaring | Other (Oil and Gas) | $CH_4$ | Reduce flaring and venting of gas | Voluntary Agreement | Implemented | The Voluntary Standard for Global Gas Flaring and Venting Reduction provides guidance on how to achieve reductions in flaring and venting of gas associated with crude oil production worldwide. The parties supporting this Standard voluntarily chose to endorse the principles laid out in the Standard and to work in cooperation with Global Gas Flaring Reduction Partners to seek solutions to overcome barriers that result in gas flaring and venting. The board sets flaring limits in permit conditions for each facility and reviews and reduces those limits regularly. | 2007 | Newfoundland and Labrador | | NE |
| British Columbia Building Green Code* | Other (Buildings) | | To improve energy efficiency in new houses and buildings | Regulatory | Implemented | In September 2008, British Columbia adopted new energy and water efficiency objectives and requirements for all buildings in the British Columbia Building Code. Further efficiency updates to the Code are proposed but not yet adopted. In 2013, B.C. adopted stronger requirements for large residential, industrial, and commercial buildings. In 2014, the BC Building Code introduced stronger energy efficiency requirements for houses and small buildings. Work on additional improvements is ongoing. For example, 48 communities in BC have been added to a provincial regulation that requires all new single family homes to be built to accommodate solar hot water systems. | 2008 | British Columbia | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario's Energy Efficiency Standards for Products and Appliances | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions in the buildings sector | Regulatory | Implemented | Ontario's regulation O. Reg. 404/12 sets efficiency requirements for over 80 products using electricity, natural gas, and oil in the residential, commercial and industrial sectors. Enhanced codes and standards play a significant role in meeting Ontario's Long-Term Energy Plan conservation target. New and enhanced efficiency standards allow for market transformation towards more efficient products and have significant impact in reducing GHG emissions in existing and new buildings, especially from natural gas and oil space and water heating equipment. The most recent amendments to energy efficiency regulation are estimated to reduce GHG emissions in 2030 by 2 Mt CO2e (this includes1.4 MT CO2e reduction resulting from natural gas and oil fired products). Ontario is working on its next update to Ontario's energy efficiency regulation that would further reduce GHG emissions in the building sector. | 2013, 2014, 2015, 2016 | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Building related initiatives* | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | To establish standards, promote improvements in energy efficiency of existing buildings, to plan for growth, and to reduce natural gas consumption throughout Ontario | Regulatory | Implemented | Emission reductions for Ontario's buildings sector are combined, although electricity savings (and associated reductions) are assigned to the Long Term Energy Plan.<br>Combined estimated mitigation impact of 1.89 Mt applies to:<br>•Growth Plan for the Greater Golden Horseshoe (2006) — impact on stationary combustion<br>•Building Code changes<br>•Home Energy Savings Program<br>The Building Code phased in higher efficiency requirements for new construction in 2012 and will require enhancements in 2017. Further enhancement targets for 2022 are expected to be included in future Code cycles to garner continual improvement, but these targets have not yet been determined. The Building code was recently amended by O.Reg. 191/14 to increase the permitted height of wood frame buildings for residential and office uses from four storeys to six storeys. This amendment:<br>•allows for more sequestration of carbon (assuming sustainable forest practices),<br>•fewer emissions from higher-intensity products such as cement and steel, and<br>•supports urban redevelopment and intensification, which reduce sprawl and support transit-friendly development<br>Ontario has started the process of updating the 2012 Building Code. Ontario's Climate Change Strategy will support net-zero buildings across the Province through, among other initiatives, updates to the Building Code. | 2007 | Ontario | | 1,890 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Natural Gas Demand Side Management Programs | Other (Buildings) | $CO_2$ | To reduce natural gas consumption in the residential, commercial and industrial sectors | Regulatory | Implemented | Enbridge Gas Distribution and Union Gas, Ontario's main natural gas utilities, have been delivering natural gas energy efficiency programs to their industrial, commercial, institutional and residential customers for over 20 years under the Demand Side Management Framework which is overseen by the Ontario Energy Board. The Demand Side Management Programs have been implemented from 2003 to 2014, with the next phase of the plan planned from 2015 to 2020.<br>The estimated GHG mitigation impact of 5.7 Mt accounts for:<br>• GHG savings from historic programs (2003-2014) that are expected to persist in 2020.<br>• GHG savings from planned programs (2015-2020), under the new 2015-2020 Demand Side Management Framework, that are expected to persist in 2020. | 2003 | Ontario | | 5,706 |
| Ontario Supporting Biomass Heat Project | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from residential and commercial/ institutional heating | Information | Implemented | A multi-ministry project working on improving the business and policy environment for biomass heating in Ontario. Activities focus on enabling policy, investment and market development, outreach, and research and innovation. The project expected to result in increased use of high-efficiency renewable biomass heating in commercial/institutional and residential applications, offsetting fossil fuel use. | 2014 | Ontario | | NE |
| Ontario Social Housing Apartment Retrofit Program | Other (Buildings) | $CO_2$ | To reduce greenhouse gas emissions from high-density social housing apartments buildings, and increase energy efficiency. | Fiscal | Implemented | Funded under the provincial Green Investment Fund, the Social Housing Apartment Retrofit Program targets large social housing apartment buildings (150+ units per building), and will fund specific retrofits that will reduce greenhouse gas emissions, and improve energy efficiency. Funded retrofits will include high-efficiency building heating and/or cooling equipment, additional interior and/or exterior insulation, energy efficient windows and doors, and energy efficiency lighting systems (LED lighting, lighting controls and sensors, etc.). | 2016 | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Social Housing Electricity Efficiency Program | Other (Buildings) | $CO_2$ | To improve efficiency in electrically-heated low-density social housing dwellings. | Fiscal | Implemented | Funded under the provincial Green Investment Fund, the Social Housing Electricity Efficiency Program targets low-density social housing dwellings (single-detached, semi-detached, townhouses and row houses) that are primarily electrically heated and where tenants pay the utility costs. The program funds retrofits to improve electricity efficiency, such as more efficiency heating (e.g. heat pumps), high-efficiency hot water heaters, increased exterior and/or interior insulation, and lighting. The program will not allow a conversion to energy sources that are more greenhouse gas intensive, such as gas heating. | 2016 | Ontario | | NE |
| Quebec Program Réno-climat | Other (Buildings) | $CO_2$ | Reduce GHG emissions in the building sector | Economic | Implemented | Encouragement for residential, energy efficient renovations and heating system conversions to reduce the energy consumption and greenhouse gas emissions by Quebec residences, while improving the comfort of the occupants.<br>The Program is hinged around the following two components:<br>1. Improving energy efficiency<br>2. Heating with Green Power<br>The Heating with Green Power component aims to provide financial assistance to home owners who replace their central heating system or their water heater using oil, propane or all other fossil fuels (with the exception of natural gas) by a system powered exclusively by electricity or by one or more renewable energy sources such as geothermal, wind, solar and aerothermal (heat pump) energy. | 2013 | Quebec | | NE |
| Quebec Construction Code* | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | Reduce GHG emissions and energy consumption in the building sector | Regulatory | Implemented | The Construction Code was amended in August, 2012 in order to introduce new requirements for energy efficiency for residential buildings. The Construction Code must be amended again soon to introduce new requirements for energy efficiency for commercial, institutional, industrial and tall residential buildings. These new measures will improve the energy performance of new buildings by 20% to 25% compared to the previous regulation. | 2012 | Quebec | | NE |

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| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Novoclimat Programs and Novoclimat 2.0 | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | Reduce GHG emissions and energy consumption in the building sector | Economic | Implemented | The Novoclimat 2.0 Program– House component (implemented in 2013) encourages the construction of new high energy performance houses according to specific construction requirements. We estimate that a new Novoclimat 2.0 house will save its occupants 20% on their energy costs compared to a home built according to the Quebec Construction Code. Financial assistance of $1,000 from the Department is paid exclusively to the first owner of the Novoclimat 2.0 approved house. The Canadian Mortgage and Housing Corporation (CMHC) offers a discount of 10% on the insurance premium of an energy efficient home. The Novoclimat 2.0 program is also for small multiple dwelling building which applies to duplex, triplex and quadruplex as well as multiple-unit complexes of 3 stories or less and 600 m2 or less. The first Novoclimat program (implemented in 1999) still applies to properties of more than 600 m² and up to 10 stories for which the main energy source is electricity, natural gas or residual forest biomass. The properties must be buildings to be built or undergoing major renovations. | 1999 | Quebec | | NE |
| Quebec Éconologis Program | Other (Buildings) | $CO_2$ | Reduce GHG emissions in the building sector | Economic | Implemented | Éconologis is an energy efficiency awareness program intended for modest income households. It consists of a home visit by a service provider mandated by the MERN to inform and raise awareness of the participating household through personalized suggestions on energy efficiency and improvement of the comfort of their home. The program can support minor work sealing and installation of energy saving products, if applicable. | 2013 | Quebec | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Nova Scotia Energy Efficiency Measures for non-electrically heated homes, with a focus on low-income households | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | To use energy more efficiently | Other (Economic) | Implemented | Homeowners on a low income can qualify for no-charge home efficiency upgrades through Efficiency Nova Scotia's Low Income Homeowner Service. Since 45 per cent of the heat loss in a typical home occurs through the walls, floors and roof, a primary focus is on insulation and draft proofing. Improving insulation can keep the house warmer in the winter and cooler in the summer, reducing heating and cooling bills while improving occupant comfort. For those who qualify for the program, a certified energy advisor will conduct a home-energy assessment and energy efficient upgrades are provided all at no cost to the homeowner. Program participants who heat with non-electrical heat sources save, on average, $900 per year. | 2011 | Nova Scotia | | NE |
| New Brunswick Efficiency Measures | Other (Buildings) | | To improve the energy efficiency of buildings | Voluntary Agreement | Implemented | Reduce GHG emissions through fuel switching to renewables & natural gas; and improvements in appliance efficiencies. | 2014 | New Brunswick | | 205 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Prince Edward Island Residential and Commercial Building Efficiency programs | Other (Buildings) | | To support residential, commercial and institutional energy efficiency | Fiscal | Implemented | Prince Edward Island (PEI) has implemented several programs to enhance efficiency in the residential and commercial building sector: • PEI's Residential Energy Efficiency Program (2008): This is an incentive program for residential property owners who wish to upgrade the energy efficiency of their properties, consisting of a grant program for eligible upgrades.. Since opening in 2008, the Office of Energy Efficiency has provided $5 million in grants to almost 6,000 residential clients; $9.4 million in loans to 1,775 residential clients; a free weatherization service for 2,900 low-income homes (resulting in an average heat cost savings of $350 annually). •PEI Program for Energy Savings Incentives (2009): The Office of Energy Efficiency provides financial incentives to help retrofit existing commercial building to its maximum energy efficiency potential. It includes financial assistance for an energy evaluation and towards energy upgrade costs. • PEI Multi Unit Residential Buildings grant program (2009): Run by the Office of Energy Efficiency, this is an incentive program for Multi Unit Residential Building property owners who wish to upgrade the energy efficiency of their properties. It consists of a grant program to assist with the implementation of eligible upgrades. | 2008, 2009 | Prince Edward Island | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Northwest Territories Building Efficiency programs | Other (Buildings) | | To support upgrades to more energy efficient technologies; To support commercial energy and water efficiency | Fiscal | Implemented | The Northwest Territories has put in place several building efficiency programs:<br>•Energy Efficiency Incentive Program (2007): the Energy Efficiency Incentive Program provides rebates for energy efficient appliances, residential retrofits, and new homes ranging from $50 to $4500.<br>•Alternative Technologies Program (2007): The program will support Aboriginal and community governments, non-for-profit organizations, commercial businesses, and residents to convert to renewable and clean energies. Technologies eligible for incentives include solar, hot water heating systems, and wind turbines.<br>•Capital Asset Retrofit Fund (2008): Through energy audits, building surveys and energy benchmarking, buildings are identified and retrofitted to improve their energy efficiency. The program tracks actual financial savings from retrofits and reinvests them into the Capital Asset Retrofit Fund.<br>•Commercial Energy Conservation and Efficiency Program (2011): Eligible small businesses receive free energy audits and 25% of the cost of retrofit expenses up to a maximum of $10,000. | 2007 | Northwest Territories | | NE |
| Yukon Residential Energy Incentive Program | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | Reduced diesel consumption for electricity and heat generation | Economic | Implemented | The Government of Yukon's new Residential Energy Incentive Program encourages homeowners, homebuilders and general contractors to design, construct, and retrofit homes to a high standard in energy efficiency. Between January and July 2015, the program saw 34 new homes built to EnerGuide 85 or better. Estimated annual energy savings are 176,800 kWh with an annual cost savings of $30,600. | 2015 | Yukon | | NE |

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| Yukon Commercial Energy Incentive Program | Other (Buildings) | $CO_2$, $CH_4$, $N_2O$ | Reduced diesel consumption for electricity and heat generation | Economic | Implemented | The Government of Yukon's Commercial Energy Incentive Program is aimed at improving energy use in multi-family dwellings and commercial buildings. Launched May 1, 2015, the program helps building owners retrofit their buildings to improve energy performance and reduce energy consumption, costs and emissions. It also encourages owners to upgrade to energy-efficient and long-lasting LED lighting systems. In its first summer, the program has led to upgrades to LED lighting in 10 commercial buildings and should result in future annual energy savings estimated at 1,188,000 kWh and annual cost savings estimated at $142,500. The program is a 2 year pilot, ending March 31, 2017. | 2015 | Yukon | | NE |
| Yukon Government Green Building Standards | Other (Buildings) | | To increase energy efficiency of new buildings within the City of Whitehorse | Regulatory | Implemented | Increased minimum insulation values, requirements for a Blower door test on all new construction, and requirements for heat-recovery ventilators. | | Yukon | | NE |
| Regulations to Address Emissions from the Chemicals and Nitrogen Fertilizers Industry | Other (Emissions-intensive and Trade-exposed) | $CO_2$ | To reduce emissions from the chemicals sector | Regulatory | Planned | In May 2015, the Government of Canada announced its intention to regulate emissions from chemicals and nitrogen fertilizers, two of the highest emitting industries in this sector. | TBD | Environment and Climate Change Canada | | NE |
| British Columbia Cement Low Carbon Fuel Program | Other (Emissions-intensive and Trade-exposed) | $CO_2$, $CH_4$, $N_2O$ | Support increasing long term use of low carbon fuels to displace coal, reduce GHG emissions and support development of a low carbon fuel industry | Economic | Implemented | Over the five year life of the program, British Columbia will offer up to $27 million in conditional incentives to encourage cement producers to meet or beat new emissions intensity benchmarks. | 2016 | British Columbia | | NE |

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| Saskatchewan Management and Reduction of Greenhouse Gases Regulation | Other (Emissions-Intensive and Trade-Exposed) | | To reduce GHG emissions from large final emitters | Regulatory | Planned | The regulation requires large final emitter facilities that emit over 50,000 tonnes CO2 to reduce their emissions by 20% by 2020 from a 2006 baseline. Compliance options include payments into a non-profit technology fund only accessible to regulated emitters for low carbon investments. Monies not used can be held in the technology fund for 5 years and then transfers into the Climate Change Foundation which is accessible for climate change related research and development or education, and is available to anyone in the province upon approval of an application. | 2013 | Saskatchewan | | NE |
| Ontario Regulatory Changes for 'Reducing Coal Use in Energy-Intensive Industries' | Other (Emissions-intensive and trade-exposed industries) | $CO_2$ | To reduce GHG emissions, and coal and petroleum coke use, from major emitting industrial sectors | Regulatory | Implemented | Regulatory changes have been developed for major-emitting industrial sectors (including cement, lime and iron and steel manufacturers) that would help facilities use alternative, less carbon-intensive fuels (such as biomass and waste materials) in place of coal and petroleum coke, and stay competitive with other jurisdictions that similarly allow the use of alternative fuel, such as Quebec and Michigan. | 2015 | Ontario | | NE |
| Quebec Manufacturing Sector Support Program | Other (Emissions intensive and trade-exposed industries) | $CO_2$ | To reduce GHG emissions | Economic | Implemented | This $1-billion program, which was in effect from June 2009 to March 2012, funded environmentally beneficial capital projects carried out by Canadian pulp and paper companies. Although the program was not designed specifically as a climate change mitigation mechanism, by funding projects that resulted in improved energy efficiency and the adoption of new fuels and increased renewable electricity production capacity, it was a catalyst for direct and indirect GHG emissions reductions. | 2008 | Quebec | | 43 |
| British Columbia Landfill Gas Management Regulation* | Other (Waste and Other) | $CH_4$ | To increase methane capture rate at landfills | Regulatory | Implemented | Requires larger municipal solid waste landfills (>1000 tonnes methane/year) to install approved landfill gas capture systems with a capture rate target of 75%. Regulations will take effect in 2016. | 2009 | British Columbia | | NE |

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| Manitoba Prescribed Landfills Methane Gas Capture Regulation | Other (Waste and Other) | $CH_4$ | To reduce methane emissions from landfills | Regulatory | Implemented | Regulation 180/2009 pertaining to Manitoba's Climate Change Emissions and Reduction Act, in combination with s.15 of the Act, requires Manitoba's three largest landfills – the Eastview Landfill in Brandon, the Brady Landfill south of Winnipeg, and the Canada Prairie Green Landfill – to capture or flare excess methane. The Regulation is expected to result in emissions reductions of 195 kt GHG per year. | 2009 | Manitoba | | 195 |
| Ontario Waste and Agriculture-related actions* | Other (Waste and Other) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To reduce GHG emissions from the waste sector | Other (Fiscal) | Implemented | Emission reductions for Ontario's waste and agriculture sectors are combined. Combined estimated mitigation impact of more than 1.8 Mt applies to initiatives related primarily to:<br>•Landfill Gas Capture and Control Regulations<br>•Biogas Financial Assistance Program<br>•Other policies and programs in the waste and agricultural sectors<br><br>In 2008, Ontario introduced regulations requiring all landfills larger than 1.5 million cubic metres to install landfill gas collection and flaring or electricity generating systems. Currently, most of the largest landfills are now collecting landfill gas in Ontario. This was accompanied by a 3-year (2008-2011) $10 million funding program to support small municipalities in meeting the regulatory requirements.<br><br>The Ontario Biogas Systems Financial Assistance Program supports the reduction of GHG emissions from farms. Completed in 2010, it successfully led to more than 11 megawatts of installed electrical capacity — enough power for 10,000 homes. It supported GHG emission reductions by promoting on-farm anaerobic digestion. | 2008 | Ontario | | 1,800 |

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| Quebec Residual Materials Management Policy 2010-2015 | Other (Waste and Other) | $CH_4$ | To reduce emissions from the waste sector | Regulatory | Implemented | • Reduce waste disposal per capita to 700 kg, i.e., a 100-kg per capita reduction from 2008.<br>• Recycle 70% of residual paper, cardboard, plastic, glass and metal.<br>• Recycle 60% of putrescible organic matter.<br>• Recycle or reuse 80% of concrete, brick and asphalt material.<br>• Source separate 70% of construction, renovation and demolition waste from the buildings sector or send it to a sorting plant.<br>• Ban the landfilling of organic matter by 2020.<br>In addition to improving the management of residual materials, the policy aims to contribute to reducing Quebec's GHG emissions, particularly those from the decomposition of organic matter. | 2010 | Quebec | | NE |
| Quebec Royalties (regular and extra) for residual material disposal | Other (Waste and Other) | $CH_4$ | Reduce emissions in the waste sector | Regulatory | Implemented | The royalties for residual material disposal aim to reduce the quantities of eliminated residual material and also to increase the lifespan of disposal sites. The royalties also fund the preparation, implementation and revision of residual material management plans as well as the measures arising from the Quebec Policy on Residual Waste Management (Politique québécoise de gestion des matières résiduelles) and the Biomethanization and compost treatment program for organic material (Programme de traitement des matières organiques par biométhanisation et compostage). The accepted approach directly discourages the disposal of residual materials while ensuring that approaches for reclamation of residual materials are more competitive from an economic standpoint.<br>The regular royalty was implemented in 2006 and the extra royalty was implemented in 2010. | 2006 | Quebec | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Biomethanization program | Other (Waste and Other) | $CH_4$ | Reduce emissions in the waste sector | Regulatory | Implemented | The Biomethanization and compost treatment program for organic material (Programme de traitement des matières organiques par biométhanisation et compostage) offers financial support to municipalities and the private sector for the installation of infrastructure to treat organic materials by means of these two processes. The Program aims to reduce GHG emissions and the quantity of organic materials destined for disposal. | 2009 | Quebec | | NE |
| Quebec program to support composting in small municipalities | Other (Waste and Other) | $CH_4$ | Reduce emissions in the waste sector | Regulatory | Implemented | The Program allows small municipalities, Aboriginal communities and certain Regional County Municipalities to obtain financial support for the implementation of composters, individual or shared, on their territory. The three components of the Program, domestic composting, community composting of plant materials, and community composting in closed thermophilic equipment, particularly helps municipalities aiming to provide composters to a greater number of single family residences and multi—family buildings. | 2013 | Quebec | | NE |
| Quebec Regulation respecting the landfilling and incineration of residual materials* | Other (Waste and Other) | $CH_4$ | To reduce the waste sector’s emissions | Regulatory | Implemented | In 2005, the Government of Quebec passed a major regulation seeking mainly to minimize the impact of biogases coming from sanitary landfill sites. The Regulation respecting the landfilling and incineration of residual materials requires the largest technical landfill sites (i.e. those that landfill over 50,000 tonnes of residual materials per year) to capture the biogases and ideally make use of them or even eliminate them. | 2005 | Quebec | | NE |
| Nova Scotia Solid Waste Resources Management Regulations* | Other (Waste and Other) | $CH_4$ | To increase the rate of waste diversion from landfills in Nova Scotia | Regulatory | Implemented | Implemented in 1996, this major regulation resulted in Nova Scotia having the highest waste diversion rate in Canada, and includes a ban on organics entering landfills in NS. Currently 55% of Nova Scotia organic waste is diverted from all landfills into aerobic processing, converting the potential methane from these organics to CO2 emissions (25 times lower global warming potential). | 1996 | Nova Scotia | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| New Brunswick Landfill Gas Management | Other (Waste and Other) | $CH_4$ | To increase methane capture rate at landfills | Voluntary Agreement | Adopted | Six municipal solid waste landfills have or will install approved landfill gas capture systems. This 2014-2020 voluntary agreement is implemented by New Brunswick and the Landfill Commissions. | 2008 | New Brunswick | | 49 |
| Agricultural Greenhouse Gases Program | Other (Agriculture) | $CH_4$ | To support research on GHG mitigation and make new mitigation technologies available to farmers. | Fiscal | Implemented | The Agricultural Greenhouse Gases Program will provide Canadian farmers with technologies to manage their land and livestock in a way that will mitigate greenhouse gas emissions. A first phase of the $27-million federally funded program ran from 2010-2015 and represented Canada's initial contribution to the Global Research Alliance on Agricultural Greenhouse Gases. In March 2016, the Government announced an additional $27 million for a second phase of the program (2016-2021), extending Canada's commitment to support the objectives of the Global Research Alliance on Agricultural Greenhouse Gases. | TBD | Agriculture and Agri-Food Canada | | NE |
| Growing Forward 2 FPT cost-shared programs | Other (Agriculture) | $CO_2$, $CH_4$, $N_2O$ | To reduce GHG emissions from the agricultural sector | Other (Education) | Implemented | Growing Forward 2 is a $3 billion investment by federal, provincial and territorial governments over five years for strategic initiatives in priority areas including to advance environmentally sustainable agriculture in Canada. Many of these initiatives translate into multiple environmental outcomes, including some related to climate change mitigation:<br>•Environmental Farm Plan and Environmental Stewardship Incentive Programs support on-farm actions. Examples of supported beneficial management practices with associated climate change mitigation benefits include: improved manure storage, biodigesters, energy use efficiency, cover crops, precision nutrient application, equipment for reduced tillage seeding, and enhanced irrigation efficiency. | 2013 | Federal, Provincial and Territorial Governments | | NE |

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| Growing Forward 2 Federal-only program | Other (Agriculture) | $CO_2$, $CH_4$, $N_2O$ | To support the reduction of GHG emissions from the agricultural sector | Research | Implemented | The AgriInnovation Program provides $698 million for industry-led research to accelerate the pace of innovation and enhance economic growth, productivity, competitiveness, adaptability and sustainability of the Canadian agriculture sector. Projects funded under the AgriInnovation Program can contribute to decreasing the emission intensity of agricultural production. | 2013 | Agriculture and Agri-Food Canada | | NE |
| Regulations of Hydrofluorocarbons | Other (Cross-cutting) | HFCs | To reduce emissions of HFCs | Regulatory | Planned | In May 2015 the Government of Canada announced its intent to regulate hydrofluorocarbons (HFCs), a category of potent GHGs. In March 2016, Canada and the U.S. reaffirmed their commitment to reduce use and emissions of HFCs using their respective domestic frameworks and will propose new actions in 2016. | TBD | Environment and Climate Change Canada | | NE |

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| ecoENERGY Efficiency* | Other (Cross-cutting ) | $CO_2$, $CH_4$, $N_2O$ | To improve energy efficiency in Canada | Information\|Regulatory\|Education | Implemented | The ecoENERGY Efficiency program: - supports the development and implementation of energy codes, benchmarking tools, and information materials to improve the energy efficiency of buildings in Canada.- enables and promotes the construction and retrofit of energy efficient low-rise residential housing through the EnerGuide Rating System, the R-2000 Standard, and ENERGY STAR for New Homes initiatives; - introduces or raises energy efficiency standards for a range of products, and promotes energy-efficient products through the ENERGY STAR initiative; -aids the adoption and implementation of an energy management standard in Canada, accelerates energy-savings investments in industrial facilities and supports the exchange of best-practices information within Canada's industrial sector; and - provides Canadians with decision-making tools for buying more fuel efficient vehicles including introducing improved vehicle fuel consumption labels. The estimated mitigation impact of 6,500 kt in 2020 for the ecoENERGY Efficiency program only includes energy efficiency impacts associated with policies and measures that occurred since Canada's 5th National Communication and associated in-depth review in 2011. This figure does not include the estimated mitigation impact of 44,750 kt in 2020 resulting from pre-2011 energy efficiency standards. | 2011 | Natural Resources Canada | | 6,500 |

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| ecoENERGY Innovation Initiative | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$ | To support clean energy and renewable technologies | Economic | Implemented | The Government of Canada has invested $268 million over five years (2011–2016) to support energy technology innovation to produce and use energy more cleanly and efficiently. The initiative funds research, development and demonstration projects of innovative and emerging technologies, including those pertaining to energy efficiency, clean electricity and renewables, bioenergy, electrification of transportation, and reducing the environmental impact of unconventional oil and gas. It aims to move key technologies along the innovation spectrum to bring them closer to commercialization. A new technology can take 10-15 years or more to fully develop, commercialize and deploy. Projects funded under this initiative will be tracked for five years after they are completed to assess their impact. | 2011 | Natural Resources Canada | | NE |
| ecoENERGY Technology Initiative | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$ | To increase clean energy supply, reduce energy waste, and reduce pollution from conventional energy | Economic | Implemented | $230 million investment in science and technology to accelerate the development and market readiness of technology solutions in clean energy. The ecoENERGY Technology Initiative also contributed $7.2 million to the International Energy Agency Greenhouse Gas Research and Development Program Weyburn-Midale CO2 Monitoring and Verification Project which studied CO2 geological storage in depleted oilfields. It was conducted in conjunction with two commercial CO2-enhanced oil recovery operations near Weyburn, Saskatchewan. Other carbon capture and storage funding through the ecoENERGY Technology Initiative includes Enhance Energy's Alberta Carbon Trunk Line (1.8 Mt of CO2 per year beginning in 2017 – accounted for under the Clean Energy Fund below) and Husky's Lloydminster pilot project (0.1 Mt of CO2 per year since 2011). The latter is expected to result in emissions reductions of up to 200 kt CO2 per year. | 2008 | Natural Resources Canada | | 200 |

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|---|---|---|---|---|---|---|---|---|---|---|
| ecoENERGY for Aboriginal and Northern Communities | Other (Cross-cutting) | $CO_2$ | Reduced GHG emissions in Aboriginal and northern communities | Economic | Implemented | The ecoENERGY for Aboriginal and Northern Communities Program is investing $20 million over five years to support Aboriginal and northern communities, including off-grid communities, to reduce GHG emissions through the integration of proven renewable energy technologies such as residual heat recovery, biomass, geothermal, wind, solar and small hydro. The program provides funding support for the design and construction of renewable energy projects integrated with community buildings, and for the feasibility stages of larger renewable energy projects, thereby displacing natural gas, coal and diesel generation of electricity and heat. The objective of the ecoENERGY for Aboriginal and Northern Communities Program (2011¬–2016) is to reduce or displace natural gas, coal and diesel generation of electricity thereby reducing greenhouse gas emissions by a projected 1.5 Mt over a 20-year project lifecycle for all projects funded by March 31, 2016. The ecoENERGY for Aboriginal and Northern Communities program funds larger renewable energy projects at the feasibility stages. As a result, it is possible that not all of the funded projects will reach the implementation phase and realize greenhouse gas emission reductions. In some cases, greenhouse gas reductions may be not be realized until after 2020. | 2011 | Indigenous and Northern Affairs Canada | | 70 |
| Carbon capture and storage investment in Canada’s Federal Budget 2008* | Other (Cross-cutting) | $CO_2$ | To support the SaskPower Boundary Dam clean energy technology project | Economic | Implemented | As part of Budget 2008, a one-time allocation of $240 million was given towards the SaskPower Boundary Dam carbon capture and storage project which will capture and store up to 1,000 kt CO2 per year from 2014 onwards for the life of the plant. | 2014 | Government of Canada | | 1,000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Clean Energy Fund | Other (Cross-cutting) | $CO_2$ | To support clean energy technology research, demonstration and development | Fiscal | Implemented | The Government of Canada has allocated $317.6 million over five years (2009/10–2013/14) for the demonstration of promising technologies, including large-scale carbon capture and storage projects, and renewable energy and clean energy systems demonstration and research and development projects. The Fund is expected to result in emissions reductions of up to 2,800 kt CO2 eq per year from 2015 to 2025, and possibly beyond. | 2009 | Natural Resources Canada | | 2,800 |
| Sustainable Development Technology Canada - Sustainable Development Tech Fund | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$ | Support for renewable and clean energy technologies as part of a broader mandate to support the development, demonstration and commercialization of clean technologies | Economic | Implemented | The Government of Canada has allocated a total of $915 million to Sustainable Development Technology Canada's Sustainable Development Tech Fund, including an injection of $325 million in Budget 2013. To date, the Sustainable Development Tech Fund has allocated $592 million to support 245 projects across Canada, leveraging an additional $1.5 billion mostly from industry. GHG emissions reductions (as well as other positive environmental outcomes) are an indirect and long-term objective. It is estimated that Sustainable Development Technology Canada's efforts will have resulted in a total cumulative global GHG reduction of 135.8 Mt of CO2 eq by 2020. As of 2012, completed projects are estimated to have yielded a total of 2.1 Mt of CO2 eq. | 2001 | Sustainable Development Technology Canada | | NE |
| British Columbia Carbon Tax* | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$ | To introduce a cost for GHG emissions from fossil fuels | Economic | Implemented | This revenue-neutral tax applies to virtually all fossil fuels, including: gasoline, diesel, natural gas, coal, propane, and home heating fuel. The carbon tax started at a rate based on $10 per tonne of associated carbon or carbon-equivalent emissions, and will rise by $5 each year over the next four years, reaching $30 per tonne in 2012 where it will remain. The revenue generated by this tax is returned to individuals and businesses through reductions to other taxes and other tax credits. | 2008 | British Columbia | | 3,000 |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

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|---|---|---|---|---|---|---|---|---|---|---|
| British Columbia Innovative Clean Energy Fund | Other (Cross-cutting) | | To support advancement of clean energy technologies | Economic | Implemented | The Innovative Clean Energy Fund is a Special Account, funded through a levy on certain energy sales, designed to support the Province's energy, economic , environmental and greenhouse gas reduction priorities, to advance BC's clean energy sector. Under its current spending plan for 2015/16 to 2017/18, supported initiatives include the Clean Energy Vehicle Program, Public Sector Energy Partnerships, Energy Efficiency and Conservation Programs, and completion of remaining 2008-2014 technology pre-commercialization projects. | 2008 | British Columbia | | NE |
| British Columbia Carbon Neutral Government Operations | Other (Cross-cutting) | | To achieve carbon neutrality in government operations | Regulatory | Implemented | The Greenhouse Gas Reduction Targets Act required the provincial government, including provincial ministries and agencies, schools, colleges, universities, health authorities and Crown corporations, to become carbon neutral by 2010 and to make public a report every year detailing actions taken towards carbon neutrality. The province has since announced that it achieved its fifth year of carbon neutrality in 2015. | 2007 | British Columbia | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Alberta Climate Leadership Plan | Other (Cross-cutting) | | To reduce GHGs across the economy | Regulatory | Planned | Announced in 2016, Alberta's planned new policy response to climate change, the Alberta Climate Leadership Plan, includes several elements: (1) Coal and electricity: Pollution from coal-fired sources of electricity will be phased out completely by 2030. Greater investments in renewable energy projects will be made over time. Retired coal will be replaced with at least two-thirds renewable energy sources resulting in up to 30% of generation from renewable sources by 2030. (2) Carbon levy: Alberta will replace its emissions intensity carbon pricing program under the Specified Gas Emitters Regulation with a carbon levy based on an emissions performance standard, covering 78-90% of provincial emissions. This carbon levy will be phased in beginning in 2017 at $20 per tonne of CO2 and will increase to $30 per tonne in 2018, implemented through a carbon levy on purchases of transportation and heating fuels. (3) Capping oil sands emissions: Alberta will transition to a $30/tonne carbon price for oil sands facilities in 2017 to drive towards reduced emissions, with a legislated maximum emissions limit of 100MT in any year. (4) Reducing methane emissions: Alberta is targeting a 45% reduction in methane gas emissions from its oil and gas operations by 2025. | TBD | Alberta | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Alberta Specified Gas Emitters Regulation* | Other (Cross-cutting) | $CO_2$, $CH_4$ | To limit intensity from the industrial sector, promote investment in green projects and technologies, and incent production of lower GHG intense electricity. | Other (Economic) | Implemented | Alberta's Specified Gas Emitters Regulation (SGER) currently requires that industrial facilities that emit more than 100,000 tonnes of CO2 eq reduce their emissions intensity by 12% using a baseline based on past emissions and production. Regulated facilities have four compliance options: improve the GHG intensity of their operations; buy emissions performance credits from other regulated facilities that achieve reductions beyond their requirement; buy Alberta-based offsets; or pay $15 per tonne of CO2 eq (to be increased to $30 per tonne in 2017) to the Climate Change and Emissions Management Fund. As of 2013, the regulation covers 108 facilities from 15 industrial sectors (about half of Alberta's GHG emissions). This regulation also encompasses the following: • Climate Change and Emissions Management Fund (CCEMF): The CCEMF invests funds in projects and technology to reduce GHG emissions in Alberta, including renewable forms of energy and cleaner energy development. .• Natural Gas Cogeneration: Alberta has implemented an incentive under the SGER to increase the uptake of cogeneration in Alberta. New action will focus gaining further reductions from cogeneration. The estimated mitigation impact of this incentive in 2020 is 1,800 kt CO2 eq (included in SGER estimate). | 2007 | Alberta | | 10,000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Alberta Carbon Capture and Storage Funding Act | Other (Cross-cutting) | $CO_2$ | To enable government support for carbon capture and storage projects | Economic | Implemented | This legislation, adopted in 2008, enables Alberta to administer funding to support large-scale carbon capture and storage projects. Two large-scale carbon capture and storage demonstration projects currently under development will capture C02 from upgrader facilities: the Quest project and the Alberta Carbon Trunk Line project. Beginning in 2015, the Quest project is expected to capture and store over 1MT C02 per year from Shell's Scotford Oil Sands Upgrader. In addition, the ACTL project will collect C02 from the North West Redwater Oil Sands Upgrader which will then be sold for injection into mature oil fields, after which it will be permanently stored. This project is expected to capture up to 1.2 MT of C02 per year. To date, the Government of Alberta has invested $1.3 billion in CCS technologies. The 2020 estimate of mitigation impact is also included under the Specified Gas Emitters Regulation. | 2008 | Alberta | | 2,760 |

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|---|---|---|---|---|---|---|---|---|---|---|
| SaskPower demonstration and implementation of carbon capture technology | Other (Cross-cutting) | $CO_2$ | To reduce GHG emissions from goal energy | Voluntary Agreement | Implemented | With funding support from the federal government, Saskatchewan has invested upwards of $17 million in capture and storage projects and projects that reduce flaring. Together with industry and government partners, it has several capture and storage projects underway, including the Aquistore project and the Carbon Capture Test Facility. The Weyburn-Midale project is the largest capture and storage demonstration site in the world. Saskatchewan is continuing to fund research related to the Weyburn reservoir through the Saskatchewan CO2 Oilfield Use for Storage and EOR Research Project. Saskatchewan has implemented the approximately $1.35 billion, 115 megawatt project at Boundary Dam, with a $240 million federal government contribution. The Boundary Dam facility began commercial operation in October 2014 and is expected to capture up to 1MT of CO2per year, reducing emissions by 7.2 per cent from 2002 levels. These emission reductions are not listed to avoid double counting since the Boundary Dam emission reductions are listed by the federal government. Saskatchewan has been injecting carbon dioxide into the subsurface since 1984. | 2014 | Saskatchewan | | NE |
| Manitoba Cap-and-Trade system | Other (Cross-cutting) | | To reduce GHG emissions across the Manitoba economy | Regulatory | Planned | Manitoba will move forward on implementing a cap and trade program for large emitters. Details of Manitoba's program will be based on recommendations made during consultations, and outlined in new provincial cap and trade legislation. Manitoba's program will be designed to link with cap and trade programs in other North American jurisdictions. | TBD | Manitoba | | NE |
| Ontario Cap-and-Trade System | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$ | To reduce GHG emissions across Ontario’s economy | Regulatory | Planned | On April 13, 2015, Premier Wynne announced that Ontario would be putting a limit on GHG emissions through a cap and trade program. Ontario intends to join other jurisdictions, including Quebec and California, in implementing a cap and trade system. Ontario is currently consulting with stakeholders to develop the details of the trading program. | TBD | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Conservation First Framework (electricity) and Demand Side Management Framework (natural gas) | Other (Cross-cutting) | $CO_2$ | To reduce electricity and natural gas demand, including at peak times, from the residential, commercial and institutional, as well as industrial sectors, to assist the province in achieving its GHG reduction objectives. | Regulatory | Implemented | As Ontario plans for its energy needs for the next 20 years, conservation will be the first resource considered, whenever cost-effective. The province's electricity and natural gas conservation frameworks provide a long-term commitment and funding to conservation initiatives and programs, building on past frameworks. From 2015-2020, Ontario plans to invest $2.2B in electricity conservation and $824.4 million in natural gas conservation. | 2015 | Ontario | | NE |
| Ontario Places to Grow Act, 2005, and plans | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To reduce GHG emissions from land use and transportation | Other (Information) | Implemented | The Growth Plan for the Greater Golden Horseshoe, 2006 (the Growth Plan), is designed to support greater density and transit-supportive communities. These help limit growing traffic congestion and urban sprawl. The Plan also promotes for the protection and conservation of water, energy and air quality. It complements Ontario's Greenbelt Plan by focusing growth in existing built up areas in order to protect the region's natural areas. The Government is currently undertaking a coordinated review of the Growth Plan and the Greenbelt Plan (see below); climate change is one of the key themes for the review, which is expected to be completed later in 2016.<br><br>The Growth Plan for Northern Ontario (2011), established under the Places to Grow Act, 2005, includes policies to incorporate climate change mitigation and adaptation considerations into planning and decision making where appropriate. Emissions associated with the Act and Plan are captured under Buildings and Transportation. | 2006, 2011 | Ontario | | NE |
| Ontario Far North Act, 2010 | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To provide for community–based land use planning in the Far North | Other (Information) | Implemented | To help ensure sustainable development, the Ontario government and First Nations are working together on community-based land use planning. | 2010 | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Ontario Greenbelt Act, 2005, and plan | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To permanently protect prime agricultural land and environmentally sensitive areas | Regulatory | Implemented | The Greenbelt Protection Plan identifies approximately 2 million acres of land where future urbanization should not occur by providing permanent protection for prime agricultural land and environmentally sensitive areas. It complements the Growth Plan for the Greater Golden Horseshoe, 2006, by protecting valuable water and natural features while helping to curb urban sprawl. The Government is currently undertaking a coordinated review of the Growth Plan and the Greenbelt Plan (see above); climate change is one of the key themes for the review, which is expected to be completed later in 2016. | 2005 | Ontario | | NE |
| Ontario Planning Act and the Provincial Policy Statement, 2014 | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | Provides policy direction on matters of provincial interest in land use planning | Other (Information) | Implemented | The Provincial Policy Statement (2014) provides policy direction on matters of provincial interest related to land use planning and development. It plays a key role in Ontario's land use planning system by providing the policy foundation for regulating the development and use of land. In making planning decisions and plans, municipalities and some other authorities are required to be consistent with the policies. The Provincial Policy Statement includes policies to incorporate climate change mitigation and adaptation considerations into land use planning and decision-making, where appropriate. The Provincial Policy Statement supports compact forms of development and transit-supportive development, protects provincially significant natural heritage features and areas, encourages green infrastructure and enhanced storm water management, and also promotes the protection and conservation of water, energy and air quality. | 2014 | Ontario | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, $SF_6$, HFCs, PFCs | Accountability of the emissions of major emitters. | Regulatory | Implemented | Aims to collect the information mainly reporting contaminants originating from the increase in global warming, acid rain, smog and toxic pollution. Through its application, the Ministère de Développement Durable, Environnement et Lutte contre les Changements Climatiques can trace an comprehensive portrait of major atmospheric emissions, which allows them to ensure an increase in surveillance of the state of the environment. The major emitters (10,000 tonnes and +) are subject to regulation. This regulation is used within the cap-and-trade system and GHG exchange programs. | 2010 | Quebec | | NE |
| Quebec 2013-2020 Climate Change Action Plan | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To reduce GHG emissions by 20% from 1990 levels by 2020 | Other (Economic) | Implemented | This action plan has an estimated budget of $3.3 million over eight years to fund 30 priorities in the following areas: transportation, industry, buildings, land use, R&D, government procurement, energy efficiency, bioenergy, agriculture and waste management. The GHG cap and trade system is key to the action plan by funding the majority of its GHG reduction measures through the sale of units of GHG emissions. This plan is the successor to the 2006-2012 action plan. The GHG emission reductions are expected to be 20% below the 1990 level in 2020 within the Western Climate Initiative's carbon market. This includes the price signal of the CTSGEA and the programs, mainly those arising from the 2013 2020 Climate Change Action Plan (2013-2020). | 2013 | Quebec | | NE |
| Quebec Technoclimat Program | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | To develop new innovative technologies or processes in the areas of energy efficiency, emerging energy and GHG emissions reduction. | Economic | Implemented | The Technoclimat program promotes the development of new technology or innovative processes in the areas of energy efficiency, emerging energy and GHG emissions reduction by providing financial support to project proponents at various stages of the innovation chain. The main objective of the program is to support R&D, demonstration, measurement, pre-commercialization and dissemination. | 2013 | Quebec | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec Duty on Non-Renewable Fossil Fuels Payable to the Green Fund | Other (Cross-cutting) | | To reduce emissions from gasoline and other fossil fuels | Regulatory | Implemented | A levy that applies to distributors of gasoline and fossil fuel used for energy efficiency purposes. It is calculated based on GHG by type of energy and generates revenues of $200 million a year that are directed to the provincial Green Fund to reduce GHG emissions and improve public transport. | 2007-2014 | Quebec | | NE |
| Quebec's Cap-and-Trade System for Greenhouse Gas Emission Allowances* | Other (Cross-cutting) | $CO_2$, $CH_4$, $N_2O$, PFCs, HFCs, $SF_6$, $NF_3$ | Quebec's Cap-and-Trade System for Greenhouse Gas Emission Allowances | Other (Regulatory) | Implemented | One of the key aspects of Quebec's climate change approach is the cap-and-trade system for greenhouse gas emission allowances implemented in January 2013. In 2013 and 2014, the entities to which it applied were those in the field of electricity production and distribution, and large industrial facilities. Since 2015, the system has extended to distribution of the fuels and fossil fuels used in the transportation, building, and small- and medium-sized business sectors. The joining of Quebec's and California's cap-and-trade systems for greenhouse gas emission allowances has been official since 2014. The Government of Quebec held four auctions within its territory in 2013-2014, and held its first joint auction sale with California in November 2014. All auctions are now joint auctions. The GHG emission reductions are expected to be 20% below the 1990 level in 2020 within the Western Climate Initiative's carbon market. | 2013 | Quebec | | NE |
| Quebec Heavy Fuel Oil Use Reduction Program | Other (Cross-cutting) | $CO_2$ | To reduce GHG emissions | Economic | Implemented | This program, run by the Agence de l'efficacité énergétique du Québec, allows consumers of heavy fuel oil to make the transition to sustainable development and to improve their competitiveness by reducing consumption. Financial assistance is available for the implementation of analyses and energy efficiency measures involving heavy fuel oil and for the conversion to less polluting energy sources, such as natural gas and forest biomass. | 2008 | Quebec | | 580 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Quebec EcoPerformance Program* | Other (Cross-cutting) | $CO_2$, HFCs | To reduce GHG emissions | Economic | Implemented | •EcoPerfomance Buildings: Encouragement for exoergic residential renovation and for heating system conversions intended to reduce the energy use and greenhouse gas emissions of Quebec homes, while enhancing their occupants' comfort. The Program hinges around the following two components: A) Improving energy efficiency; B) Heating with Green Power – The Heating with Green Power component seeks to provide financial assistance to home owners who replace their central heating system or water heater that uses fuel oil, propane or any other fossil fuel (except natural gas) with a system that runs exclusively on electricity or one or more sources of renewable energies such as geothermal, wind, solar and thermo-aerodynamic (heat pump) energies.<br>•EcoPerformance Halocarbons: This program also promotes substituting refrigerants with substances that have a lower global-warming power.<br>•EcoPerformance Industrial: This program seeks to reduce greenhouse gas emissions and energy use in the industrial sector by funding projects or measures connected with energy use and production, as well as with process improvement. ÉcoPerformance is aimed at both small and large energy users. | 2013 | Quebec | | NE |
| Quebec Regulation respecting halocarbons | Other (Cross-cutting) | HFCs | To reduce halocarbon emissions | Regulatory | Implemented | The purpose of this regulation is to reduce halocarbon emissions into the atmosphere to ensure that the ozone layer is protected and to minimize the increase in the greenhouse effect connected with the human-source emissions of certain other halocarbons. This regulation is under review. | 2008 | Quebec | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| New Brunswick Energy Efficiency Regulation | Other (Cross-cutting) | | To improve energy efficiency and energy conservation | Other (Education) | Implemented | Efficiency New Brunswick is a Crown Corporation Agency established in 2005. Its mandate is to provide advice and solutions to help residents use energy more efficiently, make better energy choices, manage energy expenses and lessen the impact of energy use on the environment, More specifically, the agency's mandate is to:<br>•Promote energy efficiency measures in the residential, community and business sectors;<br>•Develop and deliver programs and initiatives in relation to energy efficiency;<br>•Promote the development of an energy efficiency services industry;<br>•Act as a central resource for the promotion of energy efficiency; and,<br>•Raise awareness of how energy efficiency measures can lead to a more reliable energy supply for New Brunswick. | 2005 | New Brunswick | | 300 |
| New Brunswick's Air Quality Regulations | Other (Cross-cutting) | | To limit GHG emissions from industrial sectors | Regulatory | Planned | This sets the context for all industrial sectors operating in the province and includes a strong industrial approvals program which generally incorporates facility level emission caps, as well as monitoring and reporting programs. | 2014 | New Brunswick | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| Yukon Government Sector Specific Targets | Other (Cross-cutting) | | To minimize growth in overall Yukon emissions | Regulatory | Adopted | Building Sector<br>By 2016, increase the average energy efficiency of new buildings constructed outside of Whitehorse by 25% compared to 2011 standards<br>By 2020, reduce the emissions intensity of existing buildings across Yukon by 5%<br>By 2020, meet 20% of government buildings' space heating needs with clean energy sources<br>Transportation Sector<br>By 2015, reduce emissions from Yukon government light fleet operations by 5%<br>By 2015, reduce emissions in the transportation sector by 10%<br>Electricity Sector<br>By 2020, reduce the emission intensity of on-grid diesel power generation by 20%<br>By 2016, reduce on-grid electrical usage by 5 gigawatts per hour through demand-side management programs<br>Industrial Sector<br>By 2016, reduce the electrical energy intensity of industrial operations present in 2011 by 15%<br>By 2014, establish reporting protocols for stationary facilities emitting over 2.5 kt GHG per yea<br>In addition, in 2009, the following government sector targets were set:<br>Reduce GHG emissions by 20 per cent by 2015 (based on 2010 levels)<br>Work towards becoming carbon neutral by 2020 | 2012 | Yukon | | NE |
| Nunavut's Energy Strategy | Other (Cross-cutting) | | To reduce fossil fuel consumption | Other (Other) | Adopted | As part of the Energy Strategy, the Nunavut Government stated a goal to reduce the Territory's dependency on imported fuel through conservation and development of renewable energy sources. | 2006 | Nunavut | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| British Columbia Forest Carbon Offset Protocol | Other (LULUCF) | $CO_2$, $CH_4$, $N_2O$ | To enhance removals and reduce emissions associated with forest-related projects | Economic | Implemented | In 2011, the Government of British Columbia released the Forest Carbon Offset Protocol which was drafted to guide the design, development, quantification and verification of B.C forest carbon offsets to the BC Emission Offsets Regulation established under the authority of the Greenhouse Gas Reduction Targets Act. The protocol applies to a broad range of forest activities on private and public land in BC Offsets generated were used toward British Columbia's Carbon Neutral Government Regulation, which establishes the goal to achieve carbon neutrality of government operations. The Forest Carbon Offset Protocol is currently being updated to be consistent with the requirements of the new Greenhouse Gas Industrial Reporting and Control Act. | 2011 | British Columbia | | NE |
| British Columbia Great Bear Rainforest Forest Management Act | Other (LULUCF) | $CO_2$ | To increase carbon stocks through sustainable forest management and conservation | Regulatory | Planned | The Great Bear Rainforest Forest Management Act supports a strict new ecosystem-based management regime and protects 85 per cent of the 6.4-million-hectare area. | 2016 | British Columbia | | 2,000 |
| Alberta Forestry Offset Protocol | Other (LULUCF) | $CO_2$, $CH_4$, $N_2O$ | To enhance removals and reduce emissions associated with forestry | Economic | Implemented | One option for large industrial emitters to comply with their reduction obligation under the Specified Gas Emitters Regulation is to purchase offset credits from other activities that have voluntarily reduced their emissions in Alberta. To qualify for offset credits, projects must follow government approved protocols that ensure emissions reductions are real, demonstrable, and quantifiable, additional to what would have occurred otherwise and registered on the Alberta Emission Offset Registry. Alberta has established two offset protocols related to LULUCF: (1) Direct Reductions in Greenhouse Gas Emissions Arising from Changes in Forest Harvest Practices; and (2) Afforestation Projects (currently retracted for revisions). | 2011 | Alberta | | NE |

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|---|---|---|---|---|---|---|---|---|---|---|
| SaskPower Shand Greenhouse Seedlings | Other (LULUCF) | $CO_2$ | To mitigate GHG emissions from SaskPower's use of fossil fuels to produce electricity | Voluntary Agreement | Implemented | The SaskPower Shand Greenhouse grows and distributes tree, shrub and native plant seedlings utilizing waste heat from the adjacent coal-fired generating station. Typical annual production is 500, 000 seedlings. Each production cycle is estimated to contribute 3.3 to 5.6 kt of CO2 eq. sequestration per year of growth. It is estimated that 1348 kt CO2 eq will have been sequestered due to seedling production and associated plantings in the period from 1992 to 2020 and that 2669 kt CO2 eq will have been sequestered in the period from 1992 to 2030. | 1992 | Saskatchewan | | 111 |
| Ontario 50 Million Tree Program | Other (LULUCF) | $CO_2$ | To sequester carbon and improve adaptive capacity of the settled landscape | Fiscal | Implemented | This tree planting program has the goal of planting of 50 million trees by 2025 on the settled landscape of Ontario that will sequester 6.6 Mt of CO2 by 2050 and help restore forest cover on private lands across the province. | 2007 | Ontario | | NE |
| Quebec Forestation and Reforestation Offset Protocol | Other (LULUCF) | $CO_2$ | To enhance removals and reduce emissions associated with forest-related projects | Economic | Planned | The purpose of the offset credit component is to decrease compliance costs borne by an emitter without undermining the system's environmental integrity. Purchasing offset credits can enable an emitter subject to Quebec's cap-and-trade regulation to meet regulatory compliance obligations. The use of offset credits as a means of regulatory compliance has been limited to 8% in order to maximize emission reductions by entities and sources covered by the system.<br>Only offset credit projects that are voluntarily implemented by a promoter (individual, organization or company) wishing to reduce or sequester GHG emissions in sectors of activity or sources other than those subject to the Regulation's compliance obligations are eligible to receive offset credits. | TBD | Quebec | | NE |

Table 3 CAN_BR2_v2.0

**Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects**

| *Name of mitigation action* [a] | *Sector(s) affected* [b] | *GHG(s) affected* | *Objective and/or activity affected* | *Type of instrument* [c] | *Status of implementation* [d] | *Brief description* [e] | *Start year of implementation* | *Implementing entity or entities* | *Estimate of mitigation impact (not cumulative, in kt $CO_2$ eq)* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Quebec residual forest biomass program | Other (LULUCF) | $CO_2$, $CH_4$, $N_2O$ | Reduce GHG emissions from heating buildings. | Economic | Implemented | This program aims to reduce GHG emissions and the consumption of fossil fuels by funding specific energy conversion projects to residual forest biomass. | 2013 | Quebec | | 84 |
| Quebec assistance program for the use of forest biomass in heating | Other (LULUCF) | $CO_2$ | Reduce GHG emissions associated with heating of buildings | Economic | Implemented | The program aims to reduce greenhouse gas emissions and fossil fuel consumption by funding specific projects involving energy conversion to residual forest biomass. | 2009 | Quebec | | 2 |
| | | | | | | | | | | |
| | | | | | | | | | | |

*Note* : The two final columns specify the year identified by the Party for estimating impacts (based on the status of the measure and whether an ex post or ex ante estimation is available).

*Abbreviations* : GHG = greenhouse gas; LULUCF = land use, land-use change and forestry.

[a] Parties should use an asterisk (*) to indicate that a mitigation action is included in the ‘with measures’ projection.

[b] To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors, cross-cutting, as appropriate.

[c] To the extent possible, the following types of instrument should be used: economic, fiscal, voluntary agreement, regulatory, information, education, research, other.

[d] To the extent possible, the following descriptive terms should be used to report on the status of implementation: implemented, adopted, planned.

[e] Additional information may be provided on the cost of the mitigation actions and the relevant timescale.

[f] Optional year or years deemed relevant by the Party.

***Custom Footnotes***

Table 4 CAN_BR2_v2.0

**Reporting on progress**[a, b]

| | *Total emissions excluding LULUCF* | *Contribution from LULUCF*[d] | *Quantity of units from market based mechanisms under the Convention* | | *Quantity of units from other market based mechanisms* | |
|---|---|---|---|---|---|---|
| *Year*[c] | *(kt $CO_2$ eq)* | *(kt $CO_2$ eq)* | *(number of units)* | *(kt $CO_2$ eq)* | *(number of units)* | *(kt $CO_2$ eq)* |
| (2005) | | | | | | |
| 2010 | | | | | | |
| 2011 | | | | | | |
| 2012 | | | | | | |
| 2013 | | | | | | |
| 2014 | | | | | | |

*Abbreviation* : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] For the base year, information reported on the emission reduction target shall include the following: (a) total GHG emissions, excluding emissions and removals from the LULUCF sector; (b) emissions and/or removals from the LULUCF sector based on the accounting approach applied taking into consideration any relevant decisions of the Conference of the Parties and the activities and/or land that will be accounted for; (c) total GHG emissions, including emissions and removals from the LULUCF sector. For each reported year, information reported on progress made towards the emission reduction targets shall include, in addition to the information noted in paragraphs 9(a–-c) of the UNFCCC biennial reporting guidelines for developed country Parties, information on the use of units from market-based mechanisms.

[c] Parties may add additional rows for years other than those specified below.

[d] Information in this column should be consistent with the information reported in table 4(a)I or 4(a)II, as appropriate. The Parties for which all relevant information on the LULUCF contribution is reported in table 1 of this common tabular format can refer to table 1.

***Custom Footnotes***

Table 4(a)I CAN_BR2_v2.0

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2013 [a,b]**

| | *Net GHG emissions/removals from LULUCF categories* [c] | *Base year/period or reference level value* [d] | *Contribution from LULUCF for reported year* | *Cumulative contribution from LULUCF* [e] | *Accounting approach* [f] |
|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | |
| Total LULUCF | | | | | |
| A. Forest land | | | | | |
| 1. Forest land remaining forest land | | | | | |
| 2. Land converted to forest land | | | | | |
| 3. Other [g] | | | | | |
| B. Cropland | | | | | |
| 1. Cropland remaining cropland | | | | | |
| 2. Land converted to cropland | | | | | |
| 3. Other [g] | | | | | |
| C. Grassland | | | | | |
| 1. Grassland remaining grassland | | | | | |
| 2. Land converted to grassland | | | | | |
| 3. Other [g] | | | | | |
| D. Wetlands | | | | | |
| 1. Wetland remaining wetland | | | | | |
| 2. Land converted to wetland | | | | | |
| 3. Other [g] | | | | | |
| E. Settlements | | | | | |
| 1. Settlements remaining settlements | | | | | |
| 2. Land converted to settlements | | | | | |
| 3. Other [g] | | | | | |
| F. Other land | | | | | |
| 1. Other land remaining other land | | | | | |
| 2. Land converted to other land | | | | | |
| 3. Other [g] | | | | | |
| Harvested wood products | | | | | |

*Abbreviations*: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[c] For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

[d] Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

[e] If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

[f] Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

[g] Specify what was used for the category "other". Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

***Custom Footnotes***

Table 4(a)I CAN_BR2_v2.0

**Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2014 [a, b]**

| | *Net GHG emissions/removals from LULUCF categories* [c] | *Base year/period or reference level value* [d] | *Contribution from LULUCF for reported year* | *Cumulative contribution from LULUCF* [e] | *Accounting approach* [f] |
|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | |
| Total LULUCF | | | | | |
| A. Forest land | | | | | |
| 1. Forest land remaining forest land | | | | | |
| 2. Land converted to forest land | | | | | |
| 3. Other [g] | | | | | |
| B. Cropland | | | | | |
| 1. Cropland remaining cropland | | | | | |
| 2. Land converted to cropland | | | | | |
| 3. Other [g] | | | | | |
| C. Grassland | | | | | |
| 1. Grassland remaining grassland | | | | | |
| 2. Land converted to grassland | | | | | |
| 3. Other [g] | | | | | |
| D. Wetlands | | | | | |
| 1. Wetland remaining wetland | | | | | |
| 2. Land converted to wetland | | | | | |
| 3. Other [g] | | | | | |
| E. Settlements | | | | | |
| 1. Settlements remaining settlements | | | | | |
| 2. Land converted to settlements | | | | | |
| 3. Other [g] | | | | | |
| F. Other land | | | | | |
| 1. Other land remaining other land | | | | | |
| 2. Land converted to other land | | | | | |
| 3. Other [g] | | | | | |
| Harvested wood products | | | | | |

*Abbreviations* : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[c] For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

[d] Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

[e] If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

[f] Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

[g] Specify what was used for the category “other”. Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

***Custom Footnotes***

Table 4(b) CAN_BR2_v2.0

**Reporting on progress**[a, b, c]

| *Units of market based mechanisms* | | | *Year* | |
|---|---|---|---|---|
| | | | *2013* | *2014* |
| *Kyoto Protocol units*[d] | *Kyoto Protocol units* | *(number of units)* | | |
| | | *(kt $CO_2$ eq)* | | |
| | *AAUs* | *(number of units)* | | |
| | | *(kt CO2 eq)* | | |
| | ERUs | *(number of units)* | | |
| | | *(kt CO2 eq)* | | |
| | CERs | *(number of units)* | | |
| | | *(kt CO2 eq)* | | |
| | tCERs | *(number of units)* | | |
| | | *(kt CO2 eq)* | | |
| | lCERs | *(number of units)* | | |
| | | *(kt CO2 eq)* | | |
| *Other units*[d,e] | *Units from market-based mechanisms under the Convention* | *(number of units)* | | |
| | | *(kt $CO_2$ eq)* | | |
| | | | | |
| | | | | |
| | *Units from other market-based mechanisms* | *(number of units)* | | |
| | | *(kt $CO_2$ eq)* | | |
| | | | | |
| | | | | |
| *Total* | | *(number of units)* | | |
| | | *(kt $CO_2$ eq)* | | |

*Abbreviations*: AAUs = assigned amount units, CERs = certified emission reductions, ERUs = emission reduction units, lCERs = long-term certified emission reductions, tCERs = temporary certified emission reductions.
Note: 2011 is the latest reporting year.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] For each reported year, information reported on progress made towards the emission reduction target shall include, in addition to the information noted in paragraphs 9(a-c) of the reporting guidelines, on the use of units from market-based mechanisms.

[c] Parties may include this information, as appropriate and if relevant to their target.

[d] Units surrendered by that Party for that year that have not been previously surrendered by that or any other Party.

[e] Additional rows for each market-based mechanism should be added, if applicable.

***Custom Footnotes***

Table 5 CAN_BR2_v2.0

**Summary of key variables and assumptions used in the projections analysis**[a]

| *Key underlying assumptions* | | *Historical*[b] | | | | | | | Projected | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Assumption* | *Unit* | *1990* | *1995* | 2000 | 2005 | 2010 | 2011 | 2015 | 2020 | 2025 | 2030 |
| *WTI Oil Price* | *US$2013/bbl* | 38.05 | 25.37 | 38.46 | 63.42 | 84.68 | 96.40 | 49.34 | 75.01 | 82.96 | 96.06 |
| Natural Gas Price (Henry Hub) | US$2013/GJ | 2.40 | 2.20 | 5.17 | 9.24 | 4.35 | 3.75 | 2.66 | 3.53 | 3.76 | 3.89 |
| Real GDP Chain-Weighted ($1997)* | % | 0.20 | 2.80 | 5.20 | 2.90 | 3.20 | 2.00 | 2.00 | 1.90 | 1.70 | 1.60 |
| Real GDP per Capita ($1997)* | % | -1.30 | 1.70 | 4.30 | 2.00 | 2.10 | 0.80 | 0.90 | 0.90 | 0.80 | 0.80 |
| Consumer Price Index (1992=100)* | % | 4.80 | 2.20 | 2.70 | 2.20 | 1.80 | 0.90 | 0.90 | 2.00 | 1.90 | 2.00 |
| *Population Growth Rate** | *%* | 1.50 | 1.00 | 0.90 | 1.00 | 1.10 | 1.20 | 1.10 | 1.00 | 0.90 | 0.80 |

[a] Parties should include key underlying assumptions as appropriate.

[b] Parties should include historical data used to develop the greenhouse gas projections reported.

***Custom Footnotes***

* Denotes annual growth rate.

Table 6(a) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'with measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |
| ***Sector***[d,e] | | | | | | | | | |
| Energy | 405,000.00 | 337,000.00 | 364,000.00 | 425,000.00 | 405,000.00 | 373,000.00 | 384,000.00 | 417,000.00 | 450,000.00 |
| Transport | 195,000.00 | 148,000.00 | 162,000.00 | 182,000.00 | 195,000.00 | 200,000.00 | 204,000.00 | 204,000.00 | 198,000.00 |
| Industry/industrial processes | 59,000.00 | 55,000.00 | 56,000.00 | 53,000.00 | 59,000.00 | 51,000.00 | 52,000.00 | 66,000.00 | 84,000.00 |
| Agriculture | 62,000.00 | 49,000.00 | 56,000.00 | 59,000.00 | 62,000.00 | 57,000.00 | 60,000.00 | 60,000.00 | 61,000.00 |
| Forestry/LULUCF | 16,000.00 | -87,000.00 | 188,000.00 | -77,000.00 | 16,000.00 | 81,000.00 | -15,000.00 | NE | NE |
| Waste management/waste | 28,000.00 | 24,000.00 | 25,000.00 | 26,000.00 | 28,000.00 | 27,000.00 | 25,000.00 | 21,000.00 | 20,000.00 |
| Other (specify) | | | | | | | | | |
| ***Gas*** | | | | | | | | | |
| $CO_2$ emissions including net $CO_2$ from LULUCF | 586,000.00 | 369,000.00 | 647,000.00 | 492,000.00 | 586,000.00 | 619,000.00 | 545,000.00 | NE | NE |
| $CO_2$ emissions excluding net $CO_2$ from LULUCF | 580,000.00 | 463,000.00 | 494,000.00 | 572,000.00 | 580,000.00 | 556,000.00 | 570,000.00 | 608,000.00 | 643,000.00 |
| $CH_4$ emissions including $CH_4$ from LULUCF | 124,000.00 | 100,000.00 | 138,000.00 | 124,000.00 | 124,000.00 | 117,000.00 | 113,000.00 | NE | NE |
| $CH_4$ emissions excluding $CH_4$ from LULUCF | 117,000.00 | 96,000.00 | 114,000.00 | 121,000.00 | 117,000.00 | 104,000.00 | 107,000.00 | 103,000.00 | 104,000.00 |
| $N_2O$ emissions including $N_2O$ from LULUCF | 45,000.00 | 44,000.00 | 58,000.00 | 41,000.00 | 45,000.00 | 45,000.00 | 44,000.00 | NE | NE |
| $N_2O$ emissions excluding $N_2O$ from LULUCF | 41,000.00 | 42,000.00 | 46,000.00 | 40,000.00 | 41,000.00 | 38,000.00 | 41,000.00 | 40,000.00 | 42,000.00 |
| HFCs | 5,300.00 | 1,000.00 | 1,000.00 | 3,600.00 | 5,300.00 | 5,700.00 | 6,400.00 | 14,400.00 | 22,200.00 |
| PFCs | 3,800.00 | 7,600.00 | 6,300.00 | 5,000.00 | 3,800.00 | 1,900.00 | 1,600.00 | 1,800.00 | 2,400.00 |
| $SF_6$ | 1,400.00 | 3,200.00 | 2,300.00 | 2,900.00 | 1,400.00 | 400.00 | 400.00 | 300.00 | 300.00 |
| Other (specify) | | | | | | | | | |
| **Total with LULUCF**[f] | 765,500.00 | 524,800.00 | 852,600.00 | 668,500.00 | 765,500.00 | 789,000.00 | 710,400.00 | | |
| **Total without LULUCF** | 748,500.00 | 612,800.00 | 663,600.00 | 744,500.00 | 748,500.00 | 706,000.00 | 726,400.00 | 767,500.00 | 813,900.00 |

*Abbreviations*: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", at a minimum Parties shall report a 'with measures' scenario, and may report 'without measures' and 'with additional measures' scenarios. If a Party chooses to report 'without measures' and/or 'with additional measures' scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report 'without measures' or 'with additional measures' scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

Table 6(a) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'with measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |

[b] Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

[c] 20XX is the reporting due-date year (i.e. 2014 for the first biennial

[d] In accordance with paragraph 34 of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

[e] To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

[f] Parties may choose to report total emissions with or without LULUCF, as appropriate.

***Custom Footnotes***

Totals may not add due to rounding.  Canada's GHG projections for 2020 and 2030 exclude emissions and removals from LULUCF.  See Canada's Second Biennial Report, Section 5.1, Footnote 4 for an explanation.  As such, the "Total with LULUCF" projections for2020 and 2030 have not been estimated.

Table 6(b) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'without measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |
| ***Sector***[d,e] | | | | | | | | | |
| Energy | 405,000.00 | 337,000.00 | 364,000.00 | 425,000.00 | 405,000.00 | 373,000.00 | 384,000.00 | | |
| Transport | 195,000.00 | 148,000.00 | 162,000.00 | 182,000.00 | 195,000.00 | 200,000.00 | 204,000.00 | | |
| Industry/industrial processes | 59,000.00 | 55,000.00 | 56,000.00 | 53,000.00 | 59,000.00 | 51,000.00 | 52,000.00 | | |
| Agriculture | 62,000.00 | 49,000.00 | 56,000.00 | 59,000.00 | 62,000.00 | 57,000.00 | 60,000.00 | | |
| Forestry/LULUCF | 16,000.00 | -87,000.00 | 188,000.00 | -77,000.00 | 16,000.00 | 81,000.00 | -15,000.00 | | |
| Waste management/waste | 28,000.00 | 24,000.00 | 25,000.00 | 26,000.00 | 28,000.00 | 27,000.00 | 25,000.00 | | |
| Other (specify) | | | | | | | | | |
| ***Gas*** | | | | | | | | | |
| $CO_2$ emissions including net $CO_2$ from LULUCF | 586,000.00 | 369,000.00 | 647,000.00 | 492,000.00 | 586,000.00 | 619,000.00 | 545,000.00 | | |
| $CO_2$ emissions excluding net $CO_2$ from LULUCF | 580,000.00 | 463,000.00 | 494,000.00 | 572,000.00 | 580,000.00 | 556,000.00 | 570,000.00 | | |
| $CH_4$ emissions including $CH_4$ from LULUCF | 124,000.00 | 100,000.00 | 138,000.00 | 124,000.00 | 124,000.00 | 117,000.00 | 113,000.00 | | |
| $CH_4$ emissions excluding $CH_4$ from LULUCF | 117,000.00 | 96,000.00 | 114,000.00 | 121,000.00 | 117,000.00 | 104,000.00 | 107,000.00 | | |
| $N_2O$ emissions including $N_2O$ from LULUCF | 45,000.00 | 44,000.00 | 58,000.00 | 41,000.00 | 45,000.00 | 45,000.00 | 44,000.00 | | |
| $N_2O$ emissions excluding $N_2O$ from LULUCF | 41,000.00 | 42,000.00 | 46,000.00 | 40,000.00 | 41,000.00 | 38,000.00 | 41,000.00 | | |
| HFCs | 5,300.00 | 1,000.00 | 1,000.00 | 3,600.00 | 5,300.00 | 5,700.00 | 6,400.00 | | |
| PFCs | 3,800.00 | 7,600.00 | 6,300.00 | 5,000.00 | 3,800.00 | 1,900.00 | 1,600.00 | | |
| $SF_6$ | 1,400.00 | 3,200.00 | 2,300.00 | 2,900.00 | 1,400.00 | 400.00 | 400.00 | | |
| Other (specify) | | | | | | | | | |
| **Total with LULUCF**[f] | 765,500.00 | 524,800.00 | 852,600.00 | 668,500.00 | 765,500.00 | 789,000.00 | 710,400.00 | | |
| **Total without LULUCF** | 748,500.00 | 612,800.00 | 663,600.00 | 744,500.00 | 748,500.00 | 706,000.00 | 726,400.00 | | |

*Abbreviations*: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", at a minimum Parties shall report a 'with measures' scenario, and may report 'without measures' and 'with additional measures' scenarios. If a Party chooses to report 'without measures' and/or 'with additional measures' scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report 'without measures' or 'with additional measures' scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

Table 6(b) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'without measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |

[b] Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

[c] 20XX is the reporting due-date year (i.e. 2014 for the first biennial report).

[d] In accordance with paragraph 34 of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

[e] To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

[f] Parties may choose to report total emissions with or without LULUCF, as appropriate.

Table 6(c) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'with additional measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |
| ***Sector***[d,e] | | | | | | | | | |
| Energy | 405,000.00 | 337,000.00 | 364,000.00 | 425,000.00 | 405,000.00 | 373,000.00 | 384,000.00 | | |
| Transport | 195,000.00 | 148,000.00 | 162,000.00 | 182,000.00 | 195,000.00 | 200,000.00 | 204,000.00 | | |
| Industry/industrial processes | 59,000.00 | 55,000.00 | 56,000.00 | 53,000.00 | 59,000.00 | 51,000.00 | 52,000.00 | | |
| Agriculture | 62,000.00 | 49,000.00 | 56,000.00 | 59,000.00 | 62,000.00 | 57,000.00 | 60,000.00 | | |
| Forestry/LULUCF | 16,000.00 | -87,000.00 | 188,000.00 | -77,000.00 | 16,000.00 | 81,000.00 | -15,000.00 | | |
| Waste management/waste | 28,000.00 | 24,000.00 | 25,000.00 | 26,000.00 | 28,000.00 | 27,000.00 | 25,000.00 | | |
| Other (specify) | | | | | | | | | |
| ***Gas*** | | | | | | | | | |
| $CO_2$ emissions including net $CO_2$ from LULUCF | 586,000.00 | 369,000.00 | 647,000.00 | 492,000.00 | 586,000.00 | 619,000.00 | 545,000.00 | | |
| $CO_2$ emissions excluding net $CO_2$ from LULUCF | 580,000.00 | 463,000.00 | 494,000.00 | 572,000.00 | 580,000.00 | 556,000.00 | 570,000.00 | | |
| $CH_4$ emissions including $CH_4$ from LULUCF | 124,000.00 | 100,000.00 | 138,000.00 | 124,000.00 | 124,000.00 | 117,000.00 | 113,000.00 | | |
| $CH_4$ emissions excluding $CH_4$ from LULUCF | 117,000.00 | 96,000.00 | 114,000.00 | 121,000.00 | 117,000.00 | 104,000.00 | 107,000.00 | | |
| $N_2O$ emissions including $N_2O$ from LULUCF | 45,000.00 | 44,000.00 | 58,000.00 | 41,000.00 | 45,000.00 | 45,000.00 | 44,000.00 | | |
| $N_2O$ emissions excluding $N_2O$ from LULUCF | 41,000.00 | 42,000.00 | 46,000.00 | 40,000.00 | 41,000.00 | 38,000.00 | 41,000.00 | | |
| HFCs | 5,300.00 | 1,000.00 | 1,000.00 | 3,600.00 | 5,300.00 | 5,700.00 | 6,400.00 | | |
| PFCs | 3,800.00 | 7,600.00 | 6,300.00 | 5,000.00 | 3,800.00 | 1,900.00 | 1,600.00 | | |
| $SF_6$ | 1,400.00 | 3,200.00 | 2,300.00 | 2,900.00 | 1,400.00 | 400.00 | 400.00 | | |
| Other (specify) | | | | | | | | | |
| **Total with LULUCF**[f] | 765,500.00 | 524,800.00 | 852,600.00 | 668,500.00 | 765,500.00 | 789,000.00 | 710,400.00 | | |
| **Total without LULUCF** | 748,500.00 | 612,800.00 | 663,600.00 | 744,500.00 | 748,500.00 | 706,000.00 | 726,400.00 | | |

*Abbreviations*: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", at a minimum Parties shall report a 'with measures' scenario, and may report 'without measures' and 'with additional measures' scenarios. If a Party chooses to report 'without measures' and/or 'with additional measures' scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report 'without measures' or 'with additional measures' scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

Table 6(c) CAN_BR2_v2.0

**Information on updated greenhouse gas projections under a 'with additional measures' scenario**[a]

| | *GHG emissions and removals*[b] | | | | | | | GHG emission projections | |
|---|---|---|---|---|---|---|---|---|---|
| | *(kt $CO_2$ eq)* | | | | | | | (kt $CO_2$ eq) | |
| | *Base year (2005)* | 1990 | 1995 | 2000 | 2005 | 2010 | 2013 | 2020 | 2030 |

[b] Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

[c] 20XX is the reporting due-date year (i.e. 2014 for the first biennial report).

[d] In accordance with paragraph 34 of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

[e] To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

[f] Parties may choose to report total emissions with or without LULUCF, as appropriate.

Table 7 CAN_BR2_v2.0

**Provision of public financial support: summary information in 2013[a]**

| *Allocation channels* | *Year* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Canadian dollar - CAD* | | | | | *USD*[b] | | | | |
| | *Core/ general*[c] | *Climate-specific*[d] | | | | *Core/ general*[c] | *Climate-specific*[d] | | | |
| | | *Mitigation* | *Adaptation* | *Cross-cutting*[e] | *Other*[f] | | *Mitigation* | *Adaptation* | *Cross-cutting*[e] | *Other*[f] |
| ***Total contributions through multilateral channels:*** | 169,535,466.09 | 2,050,000.00 | 6,335,000.00 | 250,000.00 | | 164,568,076.92 | 1,989,935.00 | 6,149,384.50 | 242,675.00 | |
| Multilateral climate change funds[g] | 30,533,415.25 | | 3,000,000.00 | 250,000.00 | | 29,638,786.18 | | 2,912,100.00 | 242,675.00 | |
| Other multilateral climate change funds[h] | 420,915.25 | | 3,000,000.00 | | | 408,582.43 | | 2,912,100.00 | | |
| Multilateral financial institutions, including regional development banks | 133,676,548.84 | 2,000,000.00 | 3,335,000.00 | | | 129,759,825.95 | 1,941,400.00 | 3,237,284.50 | | |
| Specialized United Nations bodies | 5,325,502.00 | 50,000.00 | | | | 5,169,464.79 | 48,535.00 | | | |
| ***Total contributions through bilateral, regional and other channels*** | | 3,048,066.00 | 50,635,386.12 | 7,113,453.48 | | | 2,958,757.66 | 49,151,769.30 | 6,905,029.30 | |
| **Total** | 169,535,466.09 | 5,098,066.00 | 56,970,386.12 | 7,363,453.48 | | 164,568,076.92 | 4,948,692.66 | 55,301,153.80 | 7,147,704.30 | |

*Abbreviation:* USD = United States dollars.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should provide an explanation on methodology used for currency exchange for the information provided in table 7, 7(a) and 7(b) in the box below.

[c] This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

[d] Parties should explain in their biennial reports how they define funds as being climate-specific.

[e] This refers to funding for activities which are cross-cutting across mitigation and adaptation.

[f] Please specify.

[g] Multilateral climate change funds listed in paragraph 17(a) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

[h] Other multilateral climate change funds as referred in paragraph 17(b) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

***Custom Footnotes***

2013: information covers fiscal year (FY) period: April 1,2013 to March 31, 2014. Based on OECD/DAC exchange rates for fiscal year2013/2014: 1.0302 2014: information covers fiscal year (FY) period: April 1,2014 to March 31, 2015. Based on OECD/DAC exchange rates for fiscal year2014/2015: 1.1047

Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and table 7(b).

***Documentation Box:***

Canada’s provision of financial support to developing countries over the reporting period is new and additional, as it is above what was planned prior to the Copenhagen Accord. Canada responds to needs expressed by developing-country partners, working to mainstream climate change results in programming and development, consistent with a country-driven approach.

Table 7 CAN_BR2_v2.0

**Provision of public financial support: summary information in 2014[a]**

| *Allocation channels* | *Year* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Canadian dollar - CAD* | | | | | *USD [b]* | | | | |
| | *Core/ general [c]* | *Climate-specific [d]* | | | | *Core/ general [c]* | *Climate-specific [d]* | | | |
| | | *Mitigation* | *Adaptation* | *Cross-cutting [e]* | *Other [f]* | | *Mitigation* | *Adaptation* | *Cross-cutting [e]* | *Other [f]* |
| ***Total contributions through multilateral channels:*** | 158,726,775.41 | | 2,425,000.00 | | | 143,679,449.90 | | 2,195,110.00 | | |
| Multilateral climate change funds[g] | 30,860,082.28 | | | | | 27,934,546.28 | | | | |
| Other multilateral climate change funds[h] | 461,582.28 | | | | | 417,824.28 | | | | |
| Multilateral financial institutions, including regional development banks | 122,348,726.13 | | 2,425,000.00 | | | 110,750,066.89 | | 2,195,110.00 | | |
| Specialized United Nations bodies | 5,517,967.00 | | | | | 4,994,836.73 | | | | |
| ***Total contributions through bilateral, regional and other channels*** | | 3,400,361.00 | 67,462,144.81 | 4,385,174.00 | | | 3,078,006.78 | 61,066,733.95 | 3,969,459.50 | |
| **Total** | 158,726,775.41 | 3,400,361.00 | 69,887,144.81 | 4,385,174.00 | | 143,679,449.90 | 3,078,006.78 | 63,261,843.95 | 3,969,459.50 | |

*Abbreviation:* USD = United States dollars.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should provide an explanation on methodology used for currency exchange for the information provided in table 7, 7(a) and 7(b) in the box below.

[c] This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

[d] Parties should explain in their biennial reports how they define funds as being climate-specific.

[e] This refers to funding for activities which are cross-cutting across mitigation and adaptation.

[f] Please specify.

[g] Multilateral climate change funds listed in paragraph 17(a) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

[h] Other multilateral climate change funds as referred in paragraph 17(b) of the “UNFCCC biennial reporting guidelines for developed country Parties” in decision 2/CP.17.

***Custom Footnotes***

2013: information covers fiscal year (FY) period: April 1,2013 to March 31, 2014. Based on OECD/DAC exchange rates for fiscal year2013/2014: 1.0302 2014: information covers fiscal year (FY) period: April 1,2014 to March 31, 2015. Based on OECD/DAC exchange rates for fiscal year2014/2015: 1.1047

Each Party shall provide an indication of what new and additional financial resources they have provided, and clarify how they have determined that such resources are new and additional. Please provide this information in relation to table 7(a) and table 7(b).

***Documentation Box:***

Canada’s provision of financial support to developing countries over the reporting period is new and additional, as it is above what was planned prior to the Copenhagen Accord. Canada responds to needs expressed by developing-country partners, working to mainstream climate change results in programming and development, consistent with a country-driven approach.

Table 7(a) CAN_BR2_v2.0

**Provision of public financial support: contribution through multilateral channels in 2013[a]**

| *Donor funding* | *Total amount* | | | | *Status*[b] | *Funding source*[f] | *Financial instrument*[f] | *Type of support*[f, g] | *Sector*[c] |
|---|---|---|---|---|---|---|---|---|---|
| | *Core/general*[d] | | *Climate-specific*[e] | | | | | | |
| | *Canadian dollar - CAD* | *USD* | *Canadian dollar - CAD* | *USD* | | | | | |
| Total contributions through multilateral channels | 169,535,466.09 | 164,568,076.92 | 8,635,000.00 | 8,381,994.50 | | | | | |
| Multilateral climate change funds[g] | 30,533,415.25 | 29,638,786.18 | 3,250,000.00 | 3,154,775.00 | | | | | |
| 1. Global Environment Facility | 30,112,500.00 | 29,230,203.75 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 2. Least Developed Countries Fund | | | | | | | | | |
| 3. Special Climate Change Fund | | | | | | | | | |
| 4. Adaptation Fund | | | | | | | | | |
| 5. Green Climate Fund | | | | | | | | | |
| 6. UNFCCC Trust Fund for Supplementary Activities | | | 250,000.00 | 242,675.00 | Provided | OOF | Grant | Cross-cutting | Cross-cutting |
| 7. Other multilateral climate change funds | 420,915.25 | 408,582.43 | 3,000,000.00 | 2,912,100.00 | | | | | |
| United Nations Framework Convention on Climate Change | 420,915.25 | 408,582.43 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| Consultative Group on International Agricultural Research Fund | | | 3,000,000.00 | 2,912,100.00 | Provided | ODA | Grant | Adaptation | Agriculture |
| Multilateral financial institutions, including regional development banks | 133,676,548.84 | 129,759,825.95 | 5,335,000.00 | 5,178,684.50 | | | | | |
| 1. World Bank | | | | | | | | | |
| 2. International Finance Corporation | | | 2,000,000.00 | 1,941,400.00 | Provided | ODA | Grant | Mitigation | Other (Other) |
| 3. African Development Bank | 49,618,691.99 | 48,164,864.31 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 4. Asian Development Bank | 25,439,834.17 | 24,694,447.03 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 5. European Bank for Reconstruction and Development | | | | | | | | | |
| 6. Inter-American Development Bank | 1,208,722.68 | 1,173,307.11 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 7. Other | 57,409,300.00 | 55,727,207.50 | 3,335,000.00 | 3,237,284.50 | | | | | |
| Asian Development Bank - Integrated Disaster Risk Management | | | 1,835,000.00 | 1,781,234.50 | Provided | ODA | Grant | Adaptation | Cross-cutting |
| Caribbean Development Bank - Community Disaster Risk Reduction Program | | | 1,500,000.00 | 1,456,050.00 | Provided | ODA | Grant | Adaptation | Cross-cutting |
| International Development Association | 57,409,300.00 | 55,727,207.50 | | | Provided | ODA | Grant | Other () | Cross-cutting |
| Specialized United Nations bodies | 5,325,502.00 | 5,169,464.79 | 50,000.00 | 48,535.00 | | | | | |
| 1. United Nations Development Programme | | | 50,000.00 | 48,535.00 | | | | | |
| | | | | | | | | | |
| The Partnership for Clean Fuels and Vehicles (PCFV) | | | 50,000.00 | 48,535.00 | Provided | ODA | Grant | Mitigation | Transport |
| 2. United Nations Environment Programme | | | | | | | | | |
| 3. Other | 5,325,502.00 | 5,169,464.79 | | | | | | | |
| Multilateral Fund for the Implementation of the Montreal Protocol | 5,325,502.00 | 5,169,464.79 | | | Provided | ODA | Grant | Mitigation | Energy |

*Abbreviations:* ODA = official development assistance, OOF = other official flows.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

[c] Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

[d] This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

[e] Parties should explain in their biennial reports how they define funds as being climate-specific.

[f] Please specify.

[g] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

***Custom Footnotes***

Table 7(a) CAN_BR2_v2.0

**Provision of public financial support: contribution through multilateral channels in 2014[a]**

| *Donor funding* | *Total amount* | | | | *Status*[b] | *Funding source*[f] | *Financial instrument*[f] | *Type of support*[f, g] | *Sector*[c] |
|---|---|---|---|---|---|---|---|---|---|
| | *Core/general*[d] | | *Climate-specific*[e] | | | | | | |
| | *Canadian dollar - CAD* | *USD* | *Canadian dollar - CAD* | *USD* | | | | | |
| Total contributions through multilateral channels | 158,726,775.41 | 143,679,449.90 | 2,425,000.00 | 2,195,110.00 | | | | | |
| Multilateral climate change funds[g] | 30,860,082.28 | 27,934,546.28 | | | | | | | |
| 1. Global Environment Facility | 30,398,500.00 | 27,516,722.00 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 2. Least Developed Countries Fund | | | | | | | | | |
| 3. Special Climate Change Fund | | | | | | | | | |
| 4. Adaptation Fund | | | | | | | | | |
| 5. Green Climate Fund | | | | | | | | | |
| 6. UNFCCC Trust Fund for Supplementary Activities | | | | | | | | | |
| 7. Other multilateral climate change funds | 461,582.28 | 417,824.28 | | | | | | | |
| United Nations Framework Convention on Climate Change | 461,582.28 | 417,824.28 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| Multilateral financial institutions, including regional development banks | 122,348,726.13 | 110,750,066.89 | 2,425,000.00 | 2,195,110.00 | | | | | |
| 1. World Bank | | | | | | | | | |
| 2. International Finance Corporation | | | | | | | | | |
| 3. African Development Bank | 37,116,000.00 | 33,597,403.20 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 4. Asian Development Bank | 26,494,662.23 | 23,982,968.25 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 5. European Bank for Reconstruction and Development | | | | | | | | | |
| 6. Inter-American Development Bank | 1,328,763.90 | 1,202,797.08 | | | Provided | ODA | Grant | Cross-cutting | Cross-cutting |
| 7. Other | 57,409,300.00 | 51,966,898.36 | 2,425,000.00 | 2,195,110.00 | | | | | |
| Asian Development Bank - Integrated Disaster Risk Management | | | 925,000.00 | 837,310.00 | Provided | ODA | Grant | Adaptation | Cross-cutting |
| Caribbean Development Bank - Community Disaster Risk Reduction Program | | | 1,500,000.00 | 1,357,800.00 | Provided | ODA | Grant | Adaptation | Cross-cutting |
| International Development Association | 57,409,300.00 | 51,966,898.36 | | | Provided | ODA | Grant | Other () | Cross-cutting |
| Specialized United Nations bodies | 5,517,967.00 | 4,994,836.73 | | | | | | | |
| 1. United Nations Development Programme | | | | | | | | | |
| 2. United Nations Environment Programme | | | | | | | | | |
| 3. Other | 5,517,967.00 | 4,994,836.73 | | | | | | | |
| Multilateral Fund for the Implementation of the Montreal Protocol | 5,517,967.00 | 4,994,836.73 | | | Provided | ODA | Grant | Mitigation | Energy |

*Abbreviations:* ODA = official development assistance, OOF = other official flows.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

[c] Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

[d] This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

[e] Parties should explain in their biennial reports how they define funds as being climate-specific.

[f] Please specify.

[g] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

***Custom Footnotes***

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* / *Climate-specific* [f] *Canadian dollar - CAD* | *Total amount* / *Climate-specific* [f] *USD* | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| Total contributions through bilateral, regional and other channels | 60,796,905.60 | 59,015,556.26 | | | | | | |
| Panama, Colombia / Coastal Blue Carbon Project* | 75,000.00 | 72,802.50 | Provided | ODA | Grant | Cross-cutting | Other (Other) | Development of effective strategies for the management of coastal blue carbon ecosystems. |
| Panama / Mapping critical coastal and marine habitats† | 25,000.00 | 24,267.50 | Provided | ODA | Grant | Adaptation | Other (Other) | Mapping critical coastal and marine habitats vulnerable to climate change impacts in the Gulf of Chiriqui. |
| Africa / African Model Forest Initiative* | 1,840,055.00 | 1,786,141.39 | Provided | ODA | Grant | Cross-cutting | Forestry | Support for the African Model Forest Initiative through the International Model Forest Network. |
| Nigeria / Building Nigeria's Response to Climate Change† | 48,410.00 | 46,991.59 | Provided | ODA | Grant | Adaptation | Cross-cutting | Enhance Nigeria’s ability to reduce poverty in an equitable and sustainable way by putting in place more effective governance related to climate change. |
| Cuba / Integrated Coastal Zone Management Capacity Building* | 65,532.00 | 63,611.91 | Provided | ODA | Grant | Adaptation | Other (Coatal-zone management ) | Enhances municipal environmental management practices and the quality of life of the communities in the coastal zone of south-east Cuba. |
| Cuba / Local Economic Growth and Food Security* | 329,779.00 | 320,116.48 | Provided | ODA | Grant | Adaptation | Cross-cutting | Supporting local economic growth and food security. |
| Bolivia, Ethiopia, Ghana, Mali / Linking Initiatives, Stakeholders and Knowledge for Livelihood Security* | 2,008,284.00 | 1,949,441.28 | Provided | ODA | Grant | Adaptation | Other (other) | Improving livelihood security in an environmentally sustainable way in order to reduce vulnerability and increase ability to cope with inevitable set-backs and shocks. |
| Senegal / Strengthening Village Capacity to Address Climate Change* | 63,367.00 | 61,510.35 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Strengthen villages' capacities to address climate change. |

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Ethiopia / Climate Resiliance and Co-operatives in Ethiopia* | 18,642.00 | 18,095.79 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Support for climate resilience and cooperatives in Ethiopia. |
| Ethiopia / Food Security through Co-operatives* | 26,019.22 | 25,256.86 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Support for food security through cooperatives in Ethiopia. |
| Cameroon / Eco Agricultural Business for Changes in Climate* | 19,339.22 | 18,772.58 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Support communities to increase agricultural productivity and build small businesses to increase resilience to the challenges posed by changes in climate. |
| Latin America and the Caribbean / UWI Enhancing Knowledge and Application of Comprehensive Disaster Management† | 177,557.00 | 172,354.58 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to inform policies on climate change and sustainable development at national and global levels. |
| Guyana, Jamaica, Dominica / Disaster Risk Management Community Resilience* | 1,400,000.00 | 1,358,980.00 | Provided | ODA | Grant | Adaptation | Other (Disaster prevention and preparedness) | Increase the capacity of regional organizations, national governments and local communities to respond to and manage natural disasters. |
| Honduras / Sustainable Management of Forestry Resources in Honduras* | 1,406,332.00 | 1,365,126.47 | Provided | ODA | Grant | Mitigation | Forestry | Sustainable management of forestry resources. |
| Ethiopia / Market-led Improved Livelihoods* | 1,204,379.12 | 1,169,090.81 | Provided | ODA | Grant | Adaptation | Agriculture | Improving market-led agricultural production and market processing knowledge. |
| Southeast Asia / Strengthening Community Resilience to Natural Disasters* | 1,210,281.04 | 1,174,819.81 | Provided | ODA | Grant | Cross-cutting | Other (other) | Help communities establish effective risk reduction plans and policies to reduce people's vulnerability to natural disasters. |

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Latin America and the Caribbean / Caribbean Disaster Risk Management Agency* | 125,984.00 | 122,292.67 | Provided | ODA | Grant | Adaptation | Cross-cutting | Increase the capacity of regional organizations, national governments and local communities in the Caribbean to respond to and manage natural disasters. |
| Ghana / Food Security Through Cooperatives in Northern Ghana* | 846,702.00 | 821,893.63 | Provided | ODA | Grant | Adaptation | Agriculture | Support for food security through cooperatives in Northern Ghana. |
| Honduras / Strengthening Food Security in the Poorest Municipalities* | 3,500,000.00 | 3,397,450.00 | Provided | ODA | Grant | Adaptation | Agriculture | Aims to improve the food security of vulnerable households in the poorest municipalities by promoting their access to food, health and nutrition. |
| Latin America and the Caribbean / Sustainable Energy Access for the Latin American and Caribbean Region* | 1,641,734.00 | 1,593,631.19 | Provided | ODA | Grant | Mitigation | Cross-cutting | Support to the Latin American Energy Organization. |
| Bangladesh, Bolivia, Burkina Faso, Ethiopia, Honduras, Mali, Nepal, Senegal, Timor-Leste / Seeds Survival Program* | 2,225,132.00 | 2,159,935.63 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Support for the Unitarian Service Committee – Seeds of Survival 2010-2015 program. |
| Honduras / Promoting Food Security in the Cholteca and Rio Negro Watersheds (PROSADE)* | 2,495,444.00 | 2,422,327.49 | Provided | ODA | Grant | Adaptation | Cross-cutting | Enhance food security through improved agricultural productivity, diversity and the promotion of sustainable natural resource management practices. |
| Nicaragua / Support to the Productive Rural Development Sector Program (PRORURAL)* | 2,000,000.00 | 1,941,400.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Strengthening the agricultural sector. |

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Ghana / Resilient and Sustainable Livelihoods Transformation in Northern Ghana* | 2,191,948.00 | 2,127,723.92 | Provided | ODA | Grant | Adaptation | Cross-cutting | Offers solutions that address the root causes behind the lack of access to sufficient, nutritious food and the vulnerability to food shortages, such as technical assistance in climate change adaptation and disaster risk management practices. |
| Ethiopia / Food Self-Sufficiency for Farmers* | 1,579,064.00 | 1,532,797.42 | Provided | ODA | Grant | Adaptation | Cross-cutting | Improve resilience of women, men and their communities to climate risks. |
| Ethiopia / Improving Livelihoods, Agriculture, and National Development* | 6,100,000.00 | 5,921,270.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Increase agricultural productivity for women and men smallholder farmers. |
| Africa / African Water Facility – Phase II* | 5,200,000.00 | 5,047,640.00 | Provided | ODA | Grant | Adaptation | Other (other) | Support to the African Water Facility. |
| Ghana / Improving Food Security and Nutrition for Vulnerable People in Northern Ghana | 10,000,000.00 | 9,707,000.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Improve food security, or access to safe, nutritious and sufficient food, and provide nutrition support. |
| Indonesia / Restoring Coastal Livelihoods in South Sulawesi* | 1,635,618.00 | 1,587,694.39 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Enhance the livelihood security and well-being of vulnerable coastal communities. |
| Africa / Climate Change Adaptation in Africa† | 97,271.00 | 94,420.96 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for research projects to support capacity building and adaptation in vulnerable countries. |

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Africa, Latin America and the Caribbean / Climate Change Programming within the Ecosystems and Human Health (Ecohealth) Program† | 1,131,583.00 | 1,098,427.62 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for researchers in developing countries to produce evidence and policies for improving public health and foster healthier and ecologically sound development |
| Africa, Asia / Collaborative Adaptation Research Initiative in Africa and Asia† | 1,709,630.00 | 1,659,537.84 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for research and policy engagement in climate change hot spots. |
| Africa, Latin America and the Caribbean, Asia / International Research Initiative on Adaptation to Climate Change (IRIACC)† | 2,850,273.00 | 2,766,760.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for vulnerable populations and sectors adapt to climate change. |
| Africa, Latin America and the Caribbean, Asia / Climate Change and Water (CCW)† | 5,548,546.00 | 5,385,973.60 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for improving adaptation efforts to the water-related impacts of climate change. |

*Abbreviations:* ODA = official development assistance, OOF = other official flows; USD = United States dollars.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should report, to the extent possible, on details contained in this table.

[c] Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

[d] Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under “Other”.

[e] Parties should report, as appropriate, on project details and the implementing agency.

[f] Parties should explain in their biennial reports how they define funds as being climate-specific.

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2013[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |

[g] Please specify.

[h] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

***Custom Footnotes***

†Contribution targeting Rio Conventions as a ‘principal objective’

*Contribution targeting Rio Conventions as a ‘significant objective’

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Total contributions through bilateral, regional and other channels | 75,247,679.81 | 68,114,200.23 | | | | | | |
| / | | | | | | | | |
| Africa / African Water Facility – Phase II – Advisory Services* | 32,000.00 | 28,966.40 | Provided | ODA | Grant | Adaptation | Other (other) | Support for the African Water Facility Project. |
| West Indies / Disaster Risk Management Health Sector* | 50,000.00 | 45,260.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Increase capacity to respond to and manage natural disasters. |
| Mali / Rehabilitation of Agricultural Irrigation Infrastructures in the Zone of the Office du Niger* | 75,022.00 | 67,909.91 | Provided | ODA | Grant | Cross-cutting | Water and sanitation | Helping to develop and rehabilitate the agricultural irrigation infrastructure in the zone of the Office du Niger. |
| Latin America and the Caribbean / UWI Enhancing Knowledge and Application of Comprehensive Disaster Management† | 180,854.58 | 163,709.04 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to inform policies on climate change and sustainable development at national and global levels. |
| Guyana, Jamaica, Dominica / Disaster Risk Management Community Resilience* | 213,770.00 | 193,504.60 | Provided | ODA | Grant | Adaptation | Other (Disaster prevention and preparedness) | Increase the capacity of regional organizations, national governments and local communities to respond to and manage natural disasters. |
| Honduras / Sustainable Management of Forestry Resources in Honduras* | 848,682.00 | 768,226.95 | Provided | ODA | Grant | Mitigation | Forestry | Sustainable management of forestry resources. |
| Ethiopia / Market-led Improved Livelihoods* | 877,633.00 | 794,443.39 | Provided | ODA | Grant | Adaptation | Agriculture | Improving market-led agricultural production and market processing knowledge. |
| Southeast Asia / Strengthening Community Resilience to Natural Disasters* | 949,746.00 | 859,710.08 | Provided | ODA | Grant | Cross-cutting | Other (other) | Help communities establish effective risk reduction plans and policies to reduce people's vulnerability to natural disasters. |

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Latin America and the Caribbean / Caribbean Disaster Risk Management Agency* | 1,032,076.00 | 934,235.20 | Provided | ODA | Grant | Adaptation | Other (Disaster prevention and preparedness) | Increase the capacity of regional organizations, national governments and local communities in the Caribbean to respond to and manage natural disasters. |
| Guatemala, Honduras / Promoting Sustainable Economic Growth in Coffee-growing Regions* | 1,042,198.00 | 943,397.63 | Provided | ODA | Grant | Adaptation | Cross-cutting | Promoting sustainable agricultural practices. |
| Ghana / Food Security Through Cooperatives in Northern Ghana* | 1,465,919.00 | 1,326,949.88 | Provided | ODA | Grant | Adaptation | Agriculture | Support for food security through cooperatives in Northern Ghana. |
| Honduras / Strengthening Food Security in the Poorest Municipalities* | 1,500,000.00 | 1,357,800.00 | Provided | ODA | Grant | Adaptation | Agriculture | Aims to improve the food security of vulnerable households in the poorest municipalities by promoting their access to food, health and nutrition. |
| Latin America and the Caribbean / Sustainable Energy Access for the Latin American and Caribbean Region* | 1,851,679.00 | 1,676,139.83 | Provided | ODA | Grant | Mitigation | Cross-cutting | Support to the Latin American Energy Organization. |
| Bangladesh, Bolivia, Burkina Faso, Ethiopia, Honduras, Mali, Nepal, Senegal, Timor-Leste / Seeds Survival Program* | 2,462,668.00 | 2,229,207.07 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Support for the Unitarian Service Committee – Seeds of Survival 2010-2015 program. |
| Honduras / Promoting Food Security in the Cholteca and Rio Negro Watersheds (PROSADE)* | 2,465,449.00 | 2,231,724.43 | Provided | ODA | Grant | Adaptation | Cross-cutting | Enhance food security through improved agricultural productivity, diversity and the promotion of sustainable natural resource management practices. |
| Nicaragua / Support to the Productive Rural Development Sector Program (PRORURAL)* | 2,552,443.00 | 2,310,471.40 | Provided | ODA | Grant | Adaptation | Cross-cutting | Strengthening the agricultural sector. |

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Ghana / Resilient and Sustainable Livelihoods Transformation in Northern Ghana* | 2,564,945.00 | 2,321,788.21 | Provided | ODA | Grant | Adaptation | Cross-cutting | Offers solutions that address the root causes behind the lack of access to sufficient, nutritious food and the vulnerability to food shortages, such as technical assistance in climate change adaptation and disaster risk management practices. |
| Ethiopia / Food Self-Sufficiency for Farmers* | 3,941,225.00 | 3,567,596.87 | Provided | ODA | Grant | Adaptation | Cross-cutting | Improve resilience of women, men and their communities to climate risks. |
| Ethiopia / Improving Livelihoods, Agriculture, and National Development* | 4,328,000.00 | 3,917,705.60 | Provided | ODA | Grant | Adaptation | Cross-cutting | Increase agricultural productivity for women and men smallholder farmers. |
| Africa / African Water Facility – Phase II* | 5,800,000.00 | 5,250,160.00 | Provided | ODA | Grant | Adaptation | Other (other) | Support to the African Water Facility. |
| Ghana / Improving Food Security and Nutrition for Vulnerable People in Northern Ghana | 10,000,000.00 | 9,052,000.00 | Provided | ODA | Grant | Adaptation | Cross-cutting | Improve food security, or access to safe, nutritious and sufficient food, and provide nutrition support. |
| Mali / Strengthening Irrigated Agriculture in Mali project (REAGIR)* | 21,751,146.23 | 19,689,137.57 | Provided | ODA | Grant | Adaptation | Agriculture | Support to sustainably develop irrigated agriculture to increase food security through increased agricultural production. |
| Indonesia / Restoring Coastal Livelihoods in South Sulawesi* | 897,738.00 | 812,632.44 | Provided | ODA | Grant | Cross-cutting | Cross-cutting | Enhance the livelihood security and well-being of vulnerable coastal communities. |
| China / Export Credits for Renewable Energy | 700,000.00 | 633,640.00 | Provided | OOF | Other (Loan Guarantee) | Mitigation | Energy | |

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |
| Africa, Latin America and the Caribbean / Climate Change Programming within the Ecosystems and Human Health (Ecohealth) Program† | 505,728.00 | 457,784.99 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for researchers in developing countries to produce evidence and policies for improving public health and foster healthier and ecologically sound development |
| Africa, Asia / Collaborative Adaptation Research Initiative in Africa and Asia† | 829,012.00 | 750,412.66 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for research and policy engagement in climate change hot spots. |
| Africa, Latin America and the Caribbean, Asia / International Research Initiative on Adaptation to Climate Change (IRIACC)† | 1,872,996.00 | 1,695,435.98 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for vulnerable populations and sectors adapt to climate change. |
| Africa, Latin America and the Caribbean, Asia / Climate Change and Water (CCW)† | 4,456,750.00 | 4,034,250.10 | Provided | ODA | Grant | Adaptation | Cross-cutting | Support to the International Development Research Centre for improving adaptation efforts to the water-related impacts of climate change. |

*Abbreviations:* ODA = official development assistance, OOF = other official flows; USD = United States dollars.

[a] Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

[b] Parties should report, to the extent possible, on details contained in this table.

[c] Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

[d] Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

[e] Parties should report, as appropriate, on project details and the implementing agency.

[f] Parties should explain in their biennial reports how they define funds as being climate-specific.

Table 7(b) CAN_BR2_v2.0

**Provision of public financial support: contribution through bilateral, regional and other channels in 2014[a]**

| *Recipient country/ region/project/programme* [b] | *Total amount* | | *Status* [c] | *Funding source* [g] | *Financial instrument* [g] | *Type of support* [g, h] | *Sector* [d] | *Additional information* [e] |
|---|---|---|---|---|---|---|---|---|
| | *Climate-specific* [f] | | | | | | | |
| | *Canadian dollar - CAD* | *USD* | | | | | | |

[g] Please specify.

[h] Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

***Custom Footnotes***

†Contribution targeting Rio Conventions as a ‘principal objective’

*Contribution targeting Rio Conventions as a ‘significant objective’

**Provision of technology development and transfer support**[a,b]

| *Recipient country and/or region* | *Targeted area* | *Measures and activities related to technology transfer* | *Sector*[c] | *Source of the funding for technology transfer* | *Activities undertaken by* | *Status* | *Additional information*[d] |
|---|---|---|---|---|---|---|---|
| China, Mexico, Republic of Korea, Poland, Italy, Russian Federation, United States of America | Mitigation and Adaptation | Forest GHG emissions mitigation and forest management adaptation: scientific and technical mentoring and guidance, including provision of Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) to various countries | Other (Other) | Private and Public | Private and Public | Implemented | This program targets forest GHG emissions mitigation and forest management adaptation. The Canadian Forest Service of Natural Resources Canada undertakes a broad range of activities with international partners to advance GHG mitigation and forest management adaptation goals. The main funding sources for planned activities are in the host countries. |
| Chile, Mexico, Southeast Asia | Mitigation and Adaptation | Canada operates the Global Fire Early Warning System, a project of the Global Observation of Forest Cover and Landcover Dynamics (GOFC-GOLD) Fire Implementation Team | Other (other) | Public | Public | Implemented | Regional and national systems developed or in development collaboratively with various government agencies; ongoing consultation and advice. Current activities include information sessions and website. |
| Chile | Mitigation | Forest management and applied research on climate change impacts on forests, including through development of landscape level fire management capacities and technologies | Other (other) | Public | Public | Implemented | Collaboration between Canada and Chile has included capacity building through science and technology exchanges and workshops to further develop and apply the Canadian Forest Fire Weather Index (FWI) System as the foundation for a fire early warning system in Chile and a mitigation tool for wildfire disaster.<br>• Chile's three Model Forests are representative of three unique forest types and are being used as landscape level demonstration sites to build capacity, calibrate models and pilot landscape fire management plans for eventual use at a national scale.<br>• Data sharing in the form of key information concerning weather and vegetation has been initiated to advance the adaptation of the Canadian FWI system at a pilot scale in Chile. |
| Global | Mitigation | Development & dissemination of the RETScreen Clean Energy Management Software | Energy | Private and Public | Public | Implemented | Canada has developed RETScreen, the world's foremost clean energy decision-making software. Additional details are contained in Chapter 7 of Canada's 6th National Communication and at the RETScreen website: www.retscreen.net |

**Provision of technology development and transfer support**[a,b]

| *Recipient country and/or region* | *Targeted area* | *Measures and activities related to technology transfer* | *Sector*[c] | *Source of the funding for technology transfer* | *Activities undertaken by* | *Status* | *Additional information*[d] |
|---|---|---|---|---|---|---|---|
| Global | Mitigation and Adaptation | International Smart Grid Action Network (ISGAN)(Implementing Agreement under the International Energy Agency and Initiative under the Clean Energy Ministerial) | Energy | Public | Public | Implemented | In 2014, Canada hosted workshops on innovation aimed at improving the way ISGAN experts and partners communicate complex technical information to key decision-makers.<br>Details available on ISGAN website: www.iea-isgan.org |
| Mexico, Colombia | Mitigation | Development of Nationally Appropriate Mitigation Action (NAMA) plans for oil and natural gas industry reductions of black carbon and methane emissions from flaring, venting and fugitive equipment leaks and reduced GHG and pollutant emissions through improved energy efficiency | Energy | Public | Private and Public | Implemented | Colombia and Mexico are using their NAMA project outcomes to inform Intended Nationally Determined Contributions (INDCs) in the context of COP 21. |
| Global | Mitigation and Adaptation | Canada supported the work of the Climate Technology Centre and Network (CTCN) as a member of the Advisory Board (AB) and through work of its National Determined Entity (NDE) to the CTCN | Other (other) | Public | Public | Implemented | In 2015, Canada continued to actively engage in the AB of the CTCN and nominated its National Designated Entity (NDE), located within the Federal Department of Natural Resources. Canada also chaired discussions on possible roles of Annex I NDEs. |
| Global | Mitigation | Canada supported technology transfer and capacity building through its ongoing participation in the Climate Technology Initiative - Private Financing Advisory Network (CTI - PFAN) | Other (other) | Private and Public | Private and Public | Implemented | In 2015, Canada played a constructive role in efforts to raise awareness of PFAN’s success and increase its role in mobilizing private sector resources in the context of international climate finance. |

[a] To be reported to the extent possible.

Table 8 CAN_BR2_v2.0

**Provision of technology development and transfer support**[a,b]

| *Recipient country and/or region* | *Targeted area* | *Measures and activities related to technology transfer* | *Sector* [c] | *Source of the funding for technology transfer* | *Activities undertaken by* | *Status* | *Additional information* [d] |
|---|---|---|---|---|---|---|---|

[b] The tables should include measures and activities since the last national communication or biennial report.

[c] Parties may report sectoral disaggregation, as appropriate.

[d] Additional information may include, for example, funding for technology development and transfer provided, a short description of the measure or activity and co-financing arrangements.

***Custom Footnotes***

Table 9 CAN_BR2_v2.0

**Provision of capacity-building support**[a]

| *Recipient country/region* | *Targeted area* | *Programme or project title* | *Description of programme or project* [b,c] |
|---|---|---|---|
| Africa, Asia Pacific, Latin America and the Caribbean | Adaptation | Integrated Climate Change Modelling and Policy Linkages for Adaptive Planning, funded by International Development Research Centre (IDRC) | Multi-year capacity building initiative launched in October 2014, targeted at helping IDRC-funded research teams to deliver policy-relevant and demand-driven assessments that are informed by climate and hydrological modelling. |
| Global | Multiple Areas | RETScreen Clean Energy Management Software | World's leading clean energy decision-making software which has helped significantly reduce costs associated with identifying and assessing potential clean energy projects. Provided to users free-of-charge and in multiple languages, and includes comprehensive training materials. More information available at www.retscreen.net |
| Poland | Multiple Areas | Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) technology transfer | Technical support for the planned application of CBM-CFS3 at the management unit level, training workshop (Fall 2015), and hosting of visiting scientists. Scientific and technical cooperation. |
| China | Multiple Areas | Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3), and CBM-Framework Harvested Wood Products (CBM-FHWP) technology transfer | Training workshop (June 2013), project planning meeting(s), and scientific and technical cooperation. |
| Global | Multiple Areas | Clean Energy Ministerial, Clean Energy Solutions Centre (CESC) | Canada announced provision of experts and tools to the CESC. Canada's support to focus on efforts to assist scaling up the Ask an Expert service. |
| Peru, Ecuador, Colombia, Nepal, India, Gabon, Romania | Mitigation | Training in the use of CBM-CFS3 | Training of scientists, students, and GHG reporting experts on the use of the CBM-CFS3. In international and domestic training workshops, participants from many developing countries have been trained in the use of the model, and where requested, have been provided with follow-up support. |
| Latin America and the Caribbean, South-East Asia, Central and North Africa | Multiple Areas | The International Model Forest Network (IMFN) - Capacity building through research extension and communications activities to increase awareness of the need to adapt to the impacts of climate change; and the development and ground-truthing of policy options based on research conducted in Model Forests.) | During the reporting period, Canada provided targeted support for climate change initiatives in Model Forests which focused on:<br><br>•Cameroon (2013/14 up to Sept. 2014) improved agricultural productivity and food security and enhanced household revenue in forest communities; reached approximately 1950 farmers (50% women, 9% indigenous populations) and more than 140 producers involved in non-timber forest products and non-conventional livestock raising; targeted small scale farmers including ethnic and marginalized groups; improved local economic growth through market-led solutions.<br><br>•Globally (throughout the reporting period), produced legacy project videos, Impacts Notes, e-news, twitter feed, and presentations,<br><br>•Within Latin America and the Caribbean (13 countries) - natural Resources Canada co-sponsored a regional workshop entitled "Building Sustainability for Landscape Management: Experiences of Model Forests in times of Climate Change" (2013/14) where over 40 participants from 13 countries from the Latin American and Caribbean region contributed to strengthening the partnerships between Climate Change/REDD+ agencies and Model Forest experts, while also advancing the understanding of REDD+ activities and processes within the region and amongst Model Forests. |
| Mexico | Multiple Areas | Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) technology transfer | Training workshop (September 2014), Spanish-language model, users' guide, and tutorials provided (2014). Assistance with the preparation of state-level analyses of reference emission levels and mitigation scenarios (2014, ongoing). Additional workshop (2015). Advice on estimation of LULUCF forest GHG emissions and removals, development of MRV system and related REDD+ activities. |

Table 9 CAN_BR2_v2.0

**Provision of capacity-building support**[a]

| *Recipient country/region* | *Targeted area* | *Programme or project title* | *Description of programme or project* [b,c] |
|---|---|---|---|
| Republic of Korea | Multiple Areas | Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) technology transfer | Scientific and technical cooperation, hosting of visiting scientist, joint preparation of scientific manuscript on national-scale application and testing of CBM-CFS3 in South Korea. |
| | | | |
| | | | |

[a] To be reported to the extent possible.

[b] Each Party included in Annex II to the Convention shall provide information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by Parties not included in Annex I to the Convention in the areas of mitigation, adaptation and technology development and transfer.

[c] Additional information may be provided on, for example, the measure or activity and co-financing arrangements.

***Custom Footnotes***