



United Nations

FCCC/TRR.1/LIE



Framework Convention on  
Climate Change

Distr.: General  
23 February 2015

English only

---

## Report of the technical review of the first biennial report of Liechtenstein

Developed country Parties are requested, in accordance with decision 2/CP.17, to submit their first biennial report to the secretariat by 1 January 2014. This report presents the results of the technical review of the first biennial report of Liechtenstein conducted by an expert review team in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”.

GE.15-03445 (E)



\* 1 5 0 3 4 4 5 \*

Please recycle 



## Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction and summary .....	1–10	3
A. Introduction .....	1–5	3
B. Summary.....	6–10	3
II. Technical review of the reported information .....	11–38	4
A. All greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target .....	11–13	4
B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target .....	14–16	5
C. Progress made towards the achievement of the quantified economy-wide emission reduction target .....	17–37	5
D. Provision of financial, technological and capacity-building support to developing country Parties.....	38	10
III. Conclusions .....	39–44	10
Annex		
Documents and information used during the review.....		13

## **I. Introduction and summary**

### **A. Introduction**

1. For Liechtenstein, the Convention entered into force on 20 September 1994. Under the Convention, Liechtenstein made a commitment to reduce its greenhouse gas (GHG) emissions by 20 per cent by 2020 below the 1990 level.
2. This report covers the centralized technical review of the first biennial report (BR1)<sup>1</sup> of Liechtenstein, coordinated by the secretariat, in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention” (decision 23/CP.19).
3. The review took place from 5 to 10 May 2014 in Bonn, Germany, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Ms. Eglantina Bruci (Albania), Mr. Øyvind Christophersen (Norway), Mr. Sorin Deaconu (Romania), Ms. Agnieszka Janowska (Poland), Mr. Robert Jeszke (Poland), Mr. Bundit Limmeechokchai (Thailand), Ms. Jenny Mager (Chile), Mr. Erick Masafu (Kenya), Mr. Alexander Storch (Austria), Mr. Daniel Tutu Benefoh (Ghana), Mr. Goran Vukmir (Bosnia and Herzegovina) and Mr. Pavel Zámyslický (Czech Republic). Ms. Janowska and Mr. Tutu Benefoh were the lead reviewers. The review was coordinated by Ms. Barbara Muik and Mr. Matthew Dudley (secretariat).
4. During the review, the expert review team (ERT) examined each section of the BR1.
5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of Liechtenstein, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

### **B. Summary**

6. The ERT conducted a technical review of the information reported in the BR1 of Liechtenstein according to the “UNFCCC biennial reporting guidelines for developed country Parties” (hereinafter referred to as the UNFCCC reporting guidelines on BRs).
7. During the review, Liechtenstein provided further relevant information on: policies and measures (PaMs) with regard to institutional, administrative and legal arrangements in place to achieve its emission reduction target; projections; and the use of flexible mechanisms.

#### **1. Completeness and transparency of reporting**

8. Gaps and issues related to the reported information identified by the ERT are presented in table 1 below.

---

<sup>1</sup> The biennial report submission comprises the text of the report and the common tabular format (CTF) tables. Both the text and the CTF tables have been subject to the technical review.

## 2. Timeliness

9. The BR1 was submitted on 23 December 2013, before the deadline of 1 January 2014 mandated by decision 2/CP.17. The common tabular format (CTF) tables were submitted on the same date.

## 3. Adherence to the reporting guidelines

10. The information reported by Liechtenstein in its BR1 is partially in adherence with the UNFCCC reporting guidelines on BRs as per decision 2/CP.17 (see table 1).

Table 1

### Summary of completeness and transparency of reported information in the first biennial report of Liechtenstein<sup>a</sup>

<i>Sections of the biennial report</i>	<i>Completeness</i>	<i>Transparency</i>	<i>Reference to paragraphs</i>
Greenhouse gas emissions and trends	Complete	Mostly transparent	13
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Partially transparent	18
Progress in achievement of targets	Partially complete	Partially transparent	20, 23 and 24
Projections	Complete	Mostly transparent	37
Provision of support to developing country Parties <sup>b</sup>	NA	NA	

*Abbreviation:* NA = not applicable.

<sup>a</sup> A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in the conclusions chapter of this report.

<sup>b</sup> Liechtenstein is not a Party included in Annex II to the Convention and is therefore not obliged to adopt measures and fulfil obligations as defined in Article 4, paragraphs 3, 4 and 5, of the Convention.

## II. Technical review of the reported information

### A. All greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target

11. Liechtenstein has provided a summary of information on GHG emission trends for the period 1990–2011 in its BR1 and CTF table 1. This information is consistent with the 2013 national GHG inventory submission.

12. Total GHG emissions<sup>2</sup> excluding emissions and removals from land use, land-use change and forestry (LULUCF) decreased by 3.6 per cent between 1990 and 2011, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 2.7

<sup>2</sup> In this report, the term “total GHG emissions” refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent excluding land use, land-use change and forestry, unless otherwise specified.

per cent over the same period. Trends in the country's total GHG emissions were largely underpinned by GHG emission trends in the energy sector, which were driven by declines in fuel consumption, especially in the transport, residential, commercial and institutional subsectors. Further information on the review of emissions and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication (IDR/NC6).

13. During the review, Liechtenstein provided additional information, elaborating especially on the establishment of national rules for taking local action against domestic non-compliance with emission reduction targets and domestic arrangements established for the process of self-assessment of compliance with emission reductions in comparison with emission reduction commitments or the level of emission reduction that is required by science. The ERT encourages Liechtenstein to include this information in its next biennial report (BR).

## **B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target**

14. In its BR1 and CTF table 2, Liechtenstein reported a description of its quantified economy-wide emission reduction target, referred to henceforth as the target, including associated conditions and assumptions. Under the Convention, Liechtenstein made an unconditional commitment to reduce its GHG emissions by 20 per cent by 2020 below the 1990 level. Liechtenstein has indicated that it may increase this target to 30 per cent subject to other developed countries making comparable emission reduction efforts and the more advanced developing countries taking appropriate mitigation actions.

15. In its BR1 and CTF table 2, Liechtenstein reported a description of its target referred to in paragraph 14 above, including associated conditions and assumptions. Liechtenstein does include emissions or removals from the LULUCF sector in defining its target. In CTF table 2(b), the base year for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride (SF<sub>6</sub>) is reported as 1990, with a corresponding base year for nitrogen trifluoride (NF<sub>3</sub>) to be determined. Liechtenstein has used global warming potential values set out in the Second Assessment Report of the Intergovernmental Panel on Climate Change, and the Party has used the land-based approach in estimating LULUCF emissions. The ERT noted that as part of CTF table 2(e)I, Liechtenstein reported "NO" and "NE" on the use of units from market-based mechanisms, but did not provide an explanation for these abbreviations. Because the UNFCCC reporting guidelines on BRs do not provide for the use of notation keys, as is the case for GHG inventories, the ERT recommends that Liechtenstein improve the transparency of its reporting by explaining the rationale behind the use of each of these notation keys in CTF table 2(e)I and in all other tables where such notation keys are used. The ERT also noted that Liechtenstein reported in the box for additional information that it intends to prioritize domestic GHG reductions. If the envisaged reductions were to be higher than 20 per cent by 2020, Liechtenstein would need to increase its use of carbon credits in order to achieve the respective target. The precise amount of additional credits has not been estimated yet. Liechtenstein envisages taking the option of continuing its engagement within the Kyoto Protocol's flexible mechanism.

16. During the review, Liechtenstein provided additional information, elaborating mainly on key underlying assumptions, sensitivity analysis, the total effect of PaMs and the use of flexible mechanisms in respect to the BR1 and sixth national communication (NC6) GHG projections.

## **C. Progress made towards the achievement of the quantified economy-wide emission reduction target**

17. In its BR1 and CTF tables 3 and 4, Liechtenstein reported limited information on its mitigation actions implemented and planned since its fifth national communication (NC5) to achieve its target. In CTF table 4, Liechtenstein reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

18. The BR1 does not include some information required by the UNFCCC reporting guidelines on BRs on changes in domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting and archiving of information, and an evaluation of the progress made towards its target, although Liechtenstein explained that this information could be found in the CO<sub>2</sub> Act and in the Emissions Trading Act. Liechtenstein does not provide detailed information on the assessment of the economic and social consequences of its response measures.

19. During the review, Liechtenstein provided additional information, elaborating on the arrangements included in the main two acts. The Emissions Trading Act provides the basis for the coordination of different sectors on climate measures, the framework for the purchase of emission reduction units abroad, etc. The CO<sub>2</sub> Act is coordinated on the basis of the bilateral treaty on environmental levies between Liechtenstein and Switzerland through the relevant Swiss authorities.

20. The ERT recommends that Liechtenstein provide a specific and clear explanation about the changes in its arrangements adopted for tracking the progress made towards this target in its next BR.

21. The ERT reviewed the reported information and provided its assessment of progress made towards achieving the target under the Convention. The ERT noted progress made by Liechtenstein, reported in its BR1. Liechtenstein has implemented PaMs that target all relevant sectors and GHGs. According to the projections presented in the BR1 and the NC6 under the 'with measures' scenario, GHG emissions will amount to 193.99 kt carbon dioxide equivalent (CO<sub>2</sub> eq) in 2020. Liechtenstein's 2020 target is to achieve a GHG emission level of 184.26 kt CO<sub>2</sub> eq in 2020. The reduction target for 2020 together with the respective priority of domestic mitigation action has been incorporated into Liechtenstein's Emissions Trading Act from 2012. However, if the domestic effort only would be insufficient to meet this target by 2020, Liechtenstein would need to make use of credits from the market-based mechanisms of the order of 22 kt CO<sub>2</sub> eq annually to facilitate its ability to achieve its emission reduction target.

22. The use of market-based mechanisms is to be guided by the National Climate Strategy, which will be revised in the course of 2014. However, no exact estimations of the amount of Liechtenstein's additional credits until 2020 have been provided in the BR1. The ERT also noted that the BR1 did not clearly explain the contribution of each PaM towards this target. The ERT strongly encourages Liechtenstein to include such information in its next BR.

### **1. Mitigation actions and their effects**

23. Liechtenstein has provided in its BR1 and CTF table 3 limited information on its package of mitigation actions introduced to achieve its target. The BR1 and CTF table 3 provided limited information on mitigation actions for the energy sector only and are not consistent with the information on PaMs provided in the NC6. A detailed review of the reported information is provided in chapter II.B of the IDR/NC6. The ERT recommends

that Liechtenstein improve the transparency of its reporting by providing information on mitigation actions and their effects at the sector and at the measure level, and are consistently reported so that they are consistent across the text of the BR and in CTF table 3, and also with the information reported on PaMs in the national communication (NC).

24. According to the BR1, the main PaMs used in order to achieve the target are the Emissions Trading Act, the CO<sub>2</sub> Act, the Energy Efficiency Act and the Energy Strategy 2020. However, only measures related to energy were reported in CTF table 3. During the review, Liechtenstein explained that for projections, the climate-related policies (Emissions Trading Act and CO<sub>2</sub> Act) were not included in order to avoid double counting because the measures undertaken to implement these policies (the acts) were not additional to the acts themselves. However, this explanation is not clearly provided in the BR1.

25. In the BR1, limited information was provided for energy-related measures regarding estimation of the effects of the PaMs. Moreover, Liechtenstein provided information on PaMs at the national level only, as there are no substantial or regional programmes owing to the small size of the country. The ERT recommends that Liechtenstein improve the transparency of reported PaMs by reporting on the effects of individual mitigation measures undertaken to implement its policies.

26. The ERT identified the challenges facing Liechtenstein with regard to its ability to meet its 2020 emission reduction target noting the expected increase in GHG emissions in both transport and waste sectors over the period up to 2020. Moreover, underpinning this growth are assumptions regarding population growth estimates that drive the projections; Liechtenstein estimated that its population is to increase by about 8.5 per cent between 2011 and 2020.

27. According to Liechtenstein’s national GHG inventory, some sectors such as transport and industry have an increasing trend in GHG emissions; therefore, the country faces the challenge of designing and implementing effective PaMs in those sectors in order to modify their trends and meet Liechtenstein’s target.

28. Table 2 provides a summary of the key mitigation actions implemented by Liechtenstein to achieve its target.

Table 2  
**Summary of information on mitigation actions reported by Liechtenstein**

<i>Sectors affected</i>	<i>List of key policies and measures</i>	<i>Estimate of mitigation impact (kt CO<sub>2</sub> eq)</i>
<b><i>Policy framework and cross-sectoral measures</i></b>		
	Planned National Climate Strategy (2014)	NE
	Environmental Protection Act that provides the legal basis for emission limits for commercial and household and waste diversion measures, and establishes the Action Plan for Air	NE
	Environmental policy that includes environmental levies	NE
	Emissions regulations with regard to emission limits	NE
	Emissions Trading Act that governs involvement of two industrial facilities in the European Union Emissions Trading System	NE
<b><i>Energy</i></b>	CO <sub>2</sub> Act that introduces levies to drive efficiencies in the consumption of energy	NE

<i>Sectors affected</i>	<i>List of key policies and measures</i>	<i>Estimate of mitigation impact (kt CO<sub>2</sub> eq)</i>
Energy supply	Energy Strategy 2020 that promotes efficient use of energy and renewable energy	6.89
Renewable energy	Ordinance on the Liberalization of the Electricity Market including green electricity, hydropower and geothermal measures	NE
	Steam pipeline	2.20
Energy efficiency	Energy Efficiency Act that covers promotion of energy efficiency in commercial, industrial, institutional and residential sectors	2.89
Residential and commercial sectors	Energy Ordinance (2008)	
	Building design and standards for public buildings	NE
	Promotion of photovoltaic systems through feed-in tariff system	NE
<b>Transport</b>	National Transport Policy that includes measures to manage emissions from vehicles including an environment (fuel) levy on heavy-duty vehicles, adoption of European exhaust emission standards to limit CO <sub>2</sub> emissions from passenger vehicles and promotion of green transportation	NE
	Integrated transport planning exploring increased usage of public transport and bicycles	NE
<b>Agriculture</b>	Agriculture Law and related measures to promote sustainable agriculture practices	NE
<b>Forestry</b>	Forestry Act and related measures to promote sustainable forest management	NE
<b>Waste management</b>	Environmental Protection Act	NE
	Technical Ordinance on Waste	NE
	Registration, evaluation, authorization and restriction of chemicals	NE

*Note:* The greenhouse gas reduction estimates, given for some measures (in parentheses) are reductions in carbon dioxide or carbon dioxide equivalent for 2020.

*Abbreviation:* NE = not estimated.

29. In the NC6 and during the review, Liechtenstein provided information on, for example, institutional arrangements used for domestic compliance and responsibilities for monitoring, evaluation and reporting of PaMs, but this information was not included in the BR1. The ERT recommends that Liechtenstein improve the completeness of its reporting by including, in its next BR, any changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting and archiving of information and evaluation of the progress made towards its target.

30. Liechtenstein did not provide detailed information on the assessment of the economic and social consequences of response measures. The ERT encourages Liechtenstein to include this information in its next BR.

## 2. Estimates of emission reductions and removals and the use of units from the market-based mechanisms and land use, land-use change and forestry

31. Liechtenstein reported in its BR1 and CTF table 4 information on its plans to use market-based mechanisms under the Convention and on the contribution from LULUCF. Liechtenstein's target with respect to total GHG emissions is to achieve a reduction of 20 per cent below the 1990 level. If the envisaged domestic reductions would be insufficient by 2020, Liechtenstein would need to increase its use of market-base mechanisms in order to achieve its target. However, the precise amount of additional credits has not been reported in the BR1. Liechtenstein has reported that the use of market-based mechanisms will be guided by the National Climate Strategy, which will be revised in the course of 2014. Table 3 illustrates how Liechtenstein reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

Table 3

### Summary information on the use of units from market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made towards achievement of the target by Liechtenstein

<i>Year</i>	<i>Emissions excluding LULUCF (kt CO<sub>2</sub> eq)</i>	<i>LULUCF emissions/removals (kt CO<sub>2</sub> eq)</i>	<i>Emissions including LULUCF (kt CO<sub>2</sub> eq)</i>	<i>Use of units from the market-based mechanisms (kt CO<sub>2</sub> eq)</i>
1990 <sup>a</sup>	230.20	-9.40	220.80	NA
2010	234.12	-7.10	227.02	NE
2011	222.04	-4.84	217.01	NE
2012	225.41 <sup>b</sup>	NE	NE	NE

*Abbreviations:* LULUCF = land use, land-use change and forestry, NA = not applicable, NE = not estimated.

<sup>a</sup> Emissions and removals for 1990 shall be reported if a base year other than 1990 is used.

<sup>b</sup> Taken from Liechtenstein's 2014 annual inventory submission version 1.1.

## 3. Projections

32. Liechtenstein has provided in its BR1 and CTF tables 5 and 6 information on its updated projections for 2020 and 2030. A detailed review of the reported information is provided in chapter II.C of the IDR/NC6.

33. The ERT noted that these projections data are mostly consistent with those included in the NC6, where detailed information, a 'without measures' scenario and a 'with additional measures' scenario are provided. A detailed review of the reported information is provided in chapter II.C of the IDR/NC6.

34. In its BR1, Liechtenstein provided information on the changes since the previous NC in the methodologies used for the preparation of projections. The starting point for Liechtenstein's projections in the NC6 is the Energy Strategy 2020, adopted by the government in 2012, which describes three different energy scenarios until 2020. Two of these scenarios have been used in order to define Liechtenstein's emissions scenarios: 'with

measures' and 'with additional measures'. A baseline scenario 'without measures' was already defined in Liechtenstein's NC5. Projections of gas-specific emissions are based on a master projection (total GHG emissions in CO<sub>2</sub> eq), from which the projections of the individual GHGs such as CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and the fluorinated gases are calculated using individual scaling factors according to the shares given in Liechtenstein's GHG inventory 2011.

35. The ERT noted information reported by Liechtenstein on projected emission trends by 2020. According to the reported information, the projected emission trends 'with measures' are 15.8 per cent below the base year by 2020, while the target is 20 per cent below the base year. The ERT noted information reported by Liechtenstein on projected emission trends by 2020 and 2030. In the 'with measures' scenario, the projected emissions are 15.8 per cent below the 1990 level by 2020, and 28.6 per cent below the 2005 level by 2020. In the 'with additional measures' scenario, the projected emissions are 40.8 per cent below the 2005 level by 2020. The projected emission reductions under the 'with measures' and 'with additional measures' scenarios by 2030 are 23.3 and 38.9 per cent, respectively, compared to the 1990 levels.

36. In the BR1, Liechtenstein presents the estimated and expected total effect of implemented and adopted PaMs for the energy sector, and an estimate of the total effect of its PaMs, in accordance with the 'with measures' definition, compared with a situation without such PaMs. Information is presented in terms of GHG emissions avoided or sequestered, by gas (on a CO<sub>2</sub> eq basis), in 1995 and 2000. It also presents relevant information on factors and activities for each sector for the years 1990, 1995, 2000, 2005, 2010, 2011, 2015, 2020, 2025 and 2030.

37. The BR1 includes information on the estimated and expected emission levels for 2020 and 2030 by sector and by gas for the 'with measures' and 'with additional measures' scenario. However the 'without measures' scenario for 2020 and 2030 is included only for total GHG emissions. Liechtenstein did not provide an explicit estimate of the total effect of all planned, implemented and adopted PaMs; nevertheless, this total effect might be calculated from the abovementioned information, particularly from tables 5-11 and 5-12 of the NC6. The ERT recommends that Liechtenstein improve the transparency of its reporting by explicitly reporting the calculated total effect of its adopted and implemented PaMs. The ERT further recommends reporting projections for aviation and maritime transport also in CTF table 6 as they are included in tables 5-11 and 5-12 of the NC6, separately from the total.

#### **D. Provision of financial, technological and capacity-building support to developing country Parties**

##### **Provision of financial support to developing country Parties**

38. The ERT noted that Liechtenstein is not a Party included in Annex II to the Convention; therefore, requirements relating to Article 4, paragraphs 3, 4 and 5, of the Kyoto Protocol do not relate to Liechtenstein. The ERT commends Liechtenstein for providing information in its BR submission with regard to these requirements.

### **III. Conclusions**

39. The ERT conducted a technical review of the information reported in the BR1 and CTF tables of Liechtenstein in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the BR1 and CTF tables provide a good overview of information on emissions and removals related to the quantified economy-wide emission reduction

target, a description of the target and progress made by Liechtenstein to achieve its target. During the review, Liechtenstein provided additional information on PaMs and institutional arrangements, on projections with regard to key underlying assumptions, sensitivity analysis, the total effect of PaMs and the use of units from market-based mechanisms, as well as on the changes in methodologies for projections since the previous NC.

40. Liechtenstein's emissions and removals related to the target for 2011 were estimated to be 2.7 per cent below its 1990 level excluding LULUCF and 3.6 per cent below including LULUCF. Emission decreases were driven by trends in the energy sector caused particularly by a reduction in fuel consumption. The effects of PaMs are highly significant regarding energy use in the transport, residential and commercial and institutional subsectors.

41. Under the Convention, Liechtenstein made an unconditional commitment to reducing its GHG emissions by 20 per cent by 2020 below the 1990 level. Liechtenstein has indicated that it may increase this target to 30 per cent subject to other developed countries making comparable emission reduction efforts and the more advanced developing countries taking appropriate mitigation actions.

42. In the BR1, Liechtenstein presents GHG projections for 2015, 2020, 2025 and 2030. The BR1 includes a 'with measures' scenario. In its CTF table 6, Liechtenstein reported a 'with measures' scenario. The projected emission levels in the 'with measures' scenario for 2020 and 2030 compared with the 1990 levels are reduced by 15.8 per cent and 23.3 per cent, respectively. The projections indicate that it is likely Liechtenstein will need to either implement additional PaMs and/or use units from market-based mechanisms in order to achieve its emission reduction target.

43. Liechtenstein reported on its PaMs adopted, implemented and planned in achieving its commitments under the Convention. The most significant PaMs are the CO<sub>2</sub> Act, the Emissions Trading Act and the Climate Protection Strategy, which, together, coordinate all climate-related measures in all sectors.

44. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of Liechtenstein's reporting under the Convention. The key recommendations<sup>3</sup> are that Liechtenstein:

(a) Improve the completeness of reporting by including in the next BR information on changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting and archiving of information, and evaluation of the progress made towards its target;

(b) Improve the transparency of reporting by including in the next BR the following information:

(i) The rationale behind the use of each of the notation keys in CTF table 2(e)I and in all other tables where such notation keys are used;

(ii) Mitigation actions and their effects so that they are consistent across the text of the BR and in CTF table 3, and also with the information reported on PaMs in the NC;

(iii) Effects of individual mitigation measures undertaken to implement policies;

(iv) Calculated total effect of adopted and implemented PaMs;

---

<sup>3</sup> The recommendations are given in full in the relevant sections of this report.

- (v) Aviation and maritime transport data in CTF table 6 as included in tables 5-11 and 5-12 of the NC6, separately from the total;
- (vi) Consistent projections between the NC, BR and CTF tables with regard to adopted, implemented and planned measures at the measure and at the sector level.

## Annex

### Documents and information used during the review

#### A. Reference documents

“UNFCCC biennial reporting guidelines for developed country Parties”. Annex to decision 2/CP.17. Available at

<<http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#page=4>>.

“Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”. Annex to decision 23/CP.19. Available at

<<http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20>>.

FCCC/ARR/2012/LIE. Report of the individual review of the annual submission of Liechtenstein submitted in 2012. Available at

<<http://unfccc.int/resource/docs/2013/arr/lie.pdf>>.

FCCC/ARR/2013/LIE. Report of the individual review of the annual submission of Liechtenstein submitted in 2013. Available at

<<http://unfccc.int/resource/docs/2014/arr/lie.pdf>>.

FCCC/IDR.5/LIE. Report of the in-depth review of the fifth national communication of Liechtenstein. Available at <<http://unfccc.int/resource/docs/2011/idr/lie05.pdf>>.

Sixth national communication of Liechtenstein. Available at

<[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/submitted\\_natcom/application/pdf/nc6\\_br1\\_lie\[1\].pdf](http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/nc6_br1_lie[1].pdf)>.

First biennial report of Liechtenstein. Available at

<[https://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/submitted\\_natcom/application/pdf/nc6\\_br1\\_lie\[1\].pdf](https://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/nc6_br1_lie[1].pdf)>.

Common tabular format tables of Liechtenstein. Available at

<[http://unfccc.int/national\\_reports/biennial\\_reports\\_and\\_iar/submitted\\_biennial\\_reports/items/7550.php](http://unfccc.int/national_reports/biennial_reports_and_iar/submitted_biennial_reports/items/7550.php)>.

2013 GHG inventory submission of Liechtenstein. Available at

<[http://unfccc.int/national\\_reports/annex\\_i\\_ghg\\_inventories/national\\_inventories\\_submissions/items/7383.php](http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/7383.php)>.

2014 GHG inventory submission of Liechtenstein. Available at

<[http://unfccc.int/national\\_reports/annex\\_i\\_ghg\\_inventories/national\\_inventories\\_submissions/items/8108.php](http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php)>.

#### B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Sven Braden (Office of Environment), including additional material on updated policies and measures, greenhouse gas projections, the national registry and recent climate policy developments in Liechtenstein.