Effectiveness audits of the Tyrolean Court of Audit

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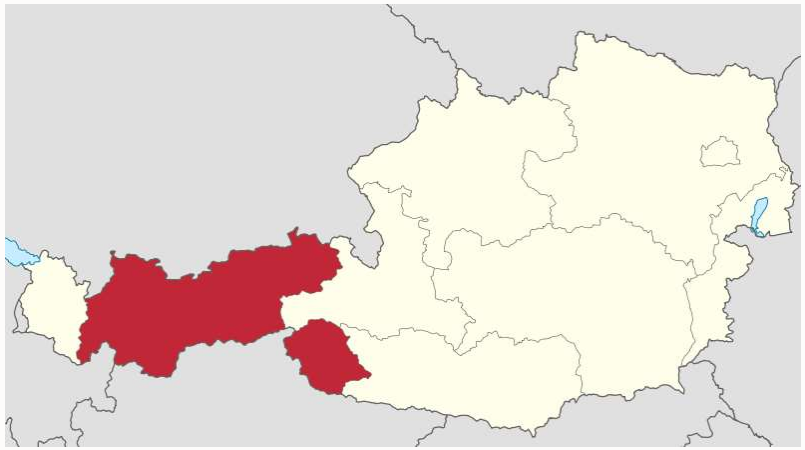
Tyrol (federal state of Austria)



- Population: 760.000
- Area: 12.700 km²
  - 12 % area of permanent settlement
- District administrations: 9
- Municipalities: 277
- GRP: 35 Mrd. EUR

- Budget:
  - Revenue: 4,0 billions €
  - Expenditure: 4,2 billions €

- Tyrolean Court of Audit: 15 employees (13 auditors)

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1. Concepts of input, output and outcome orientation

Input orientation

- Inputs are financial, human and material resources that are used to generate output (products, services).
- Example: classic budget, where it is specified how much money different administrative units receive, but not what specific outputs or outcomes are to be achieved with these funds.

1. Concepts of input, output and outcome orientation

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Output orientation

- The output describes which work result (products, services) is achieved with a specific administrative activity and the inputs required for this.
- Examples: Number of funding cases, notifications, contacts with citizens, etc.
- Outputs are usually easy to measure because they can be quantified!
- Outputs from the administration serve to achieve a politically specified goal.
- Outputs only show that something has been done, but not whether the goal and the desired effect have been achieved.

1. Concepts of input, output and outcome orientation

Outcome orientation

- Outcome refers to the effects of the output on the addressees of administrative action, on third parties and on society as a whole.
- Politicians and administration should be aware of the effect they want to create with their actions (outcome goals).
- Examples:
  - The number of traffic checks carried out (=output) affects the behavior of road users and the frequency of accidents (=outcome).
  - The number of notifications of study grants are outputs of the administration → the corresponding outcome would be, for example, a higher proportion of students from low-income families.

1. Concepts of input, output and outcome orientation

Outcome orientation

- It is not clear from the outset which outputs support the desired goal sufficiently!
- The exact effect of measures is difficult to determine → overlapping by external influences, lack of quantitative objectives, lack of indicators.
- “Impact” means the long-term and sustainable social benefits of outcomes (long-term outcomes).
- The boundary between outcome and impact is fluid.

2. Task of the Courts of Audit

- Is it the task of Courts of Audit to carry out outcome/impact analyses?
  - In principle, the administration should carry out outcome/impact analyses itself!
  - Outcome analyses should be understood as a natural part of administrative action → outcome-oriented administrative management!
  - If there are no or insufficient impact calculations → Courts of Audit can point this out critically and give recommendations.
  - If sufficient time and resources are available, Courts of audit can carry out their own calculations.
  - Problem → the required data is often not available (promptly) and/or the data is of poor quality.

3. Effectiveness audits of the Tyrolean Court of Audit

- The Tyrolean Court of Audit regularly carries out effectiveness checks as part of its auditing activities → the audited bodies are asked to submit any quantitative or qualitative impact calculations.
- If such outcome/impact analyses are available, the Tyrolean Court of Audit describes and evaluates these analyses.
- If no calculations are available, the Tyrolean Court of Audit will point out these deficiencies in its audit reports and provide appropriate recommendations.
- Aspects of effectiveness were particularly important in the following audit reports:
  - „Impulspaket Tirol“ (2019) (Economic stimulus program for the Tyrolean economy and labor market) and
  - „Umsetzung der Tiroler Klimaschutz- und Klimawandelanpassungsstrategie“ (2022) (Implementation of the Tyrolean climate strategy).

4. Example: Tyrolean climate strategy

- Audit report from 2022: "Implementation of the Tyrolean climate protection and climate change adaptation strategy“ → in short: Tyrolean climate strategy.
- Audited period: 2015 to 2020.
- Development of the Tyrolean climate strategy:
  - Need for action recognized in 2011 → increased need for coordination within the state administration → assignment to create a Tyrolean climate strategy.
  - Participation process → within the administration, proposals for measures were developed.
  - Planned monitoring → indicators for measuring target achievement (outcome) should be developed and monitoring should be ensured.

4. Example: Tyrolean climate strategy

- Audit criticism → The draft strategy was not coordinated enough with the state government (politics) → no political consensus and no government decision.
- As a result, there was a lack of clear political will to implement the planned measures and to develop suitable indicators.
- Audit criticism → unspecified work order to the administration:
  - There were no specific requirements for annual reporting (measurement of input and outcome).
  - As a result, the climate strategy, which was created at great expense, could not be implemented in full.
- **Conclusion 1 → Politics and administration must want to measure themselves against their goals!**

4. Example: Tyrolean climate strategy

- Organisational framework:
  - Audit criticism → In the period 2015 to 2020, on average only 1 full-time equivalent was dedicated to climate coordination.
  - Negative effects:
    - Subsidies from the European Structural Fund and the National Climate Fund were not collected,
    - insufficient coordination/control of the implementation of the Tyrolean climate strategy → see following slides.
  - **Conclusion 2 → Outcome orientation needs staff!**

4. Example: Tyrolean climate strategy

- Implementation of the Tyrolean climate strategy (inputs):
  - The state of Tyrol implemented a total of 270 individual measures → the exact degree of implementation was only mentioned occasionally.
  - Expenditures (inputs) were also only occasionally documented → The Tyrolean Court of Audit therefore determined the corresponding expenditure data itself!
  - Result → Between 2015 and 2020, the state of Tyrol spent a total of €374 million on climate protection and adaptation to climate change → of which €150 million alone in the “Buildings” sector and €139 million in the “Transport” sector.
  - Attention! → In addition to climate protection, other goals were also pursued with the funding → no pure “climate expenditure”, but so-called “no-regret” inputs.

4. Example: Tyrolean climate strategy

- Example → "No regret" in the building sector → Thermal insulation also helps to save money in the long term and heating with renewable energies leads to greater independence from oil and gas.
- Example → "No-regret" in the transport sector → Expansion of public transport also increases the mobility of the population and improves air quality.
- Conclusion 3 → The "no regret" character of the measures makes it easier for politicians to pursue climate protection.

4. Example: Tyrolean climate strategy

- Implementation of the Tyrolean climate strategy (outcomes):
  - Comprehensive outcome/impact calculations in terms of CO2 savings were only available in the "Buildings" sector and partly in the “Economy" sector.
  - The outcome of the implemented measures in relation to adaptation to climate change was not quantified in any sector.
  - For individual projects there were at least some progress and success measurements at output level.
  - **Conclusion 4 → There are hardly any measurements!**

4. Example: Tyrolean climate strategy

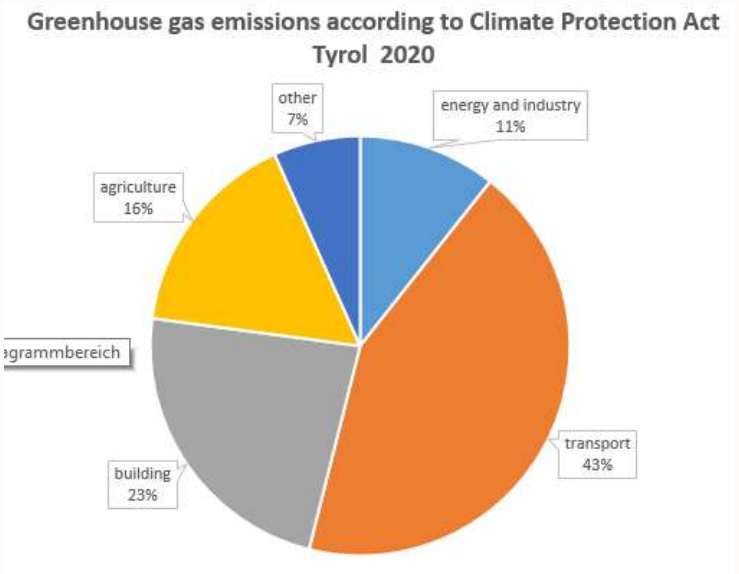
- Recommendations of the Tyrolean Court of Audit:
  - When developing future climate strategies, **quantitative goals and suitable indicators** for measuring the achievement of goals should be defined in advance!
  - In order to increase the quality of the annual progress reports, **monitoring** should be installed during the year → ongoing critical analysis of the implemented measures.
  - Existing data should be used for the monitoring → if necessary, the state of Tyrol should also **collect new data**, e.g. to determine the effectiveness of individual Tyrol-specific measures (regional projects).

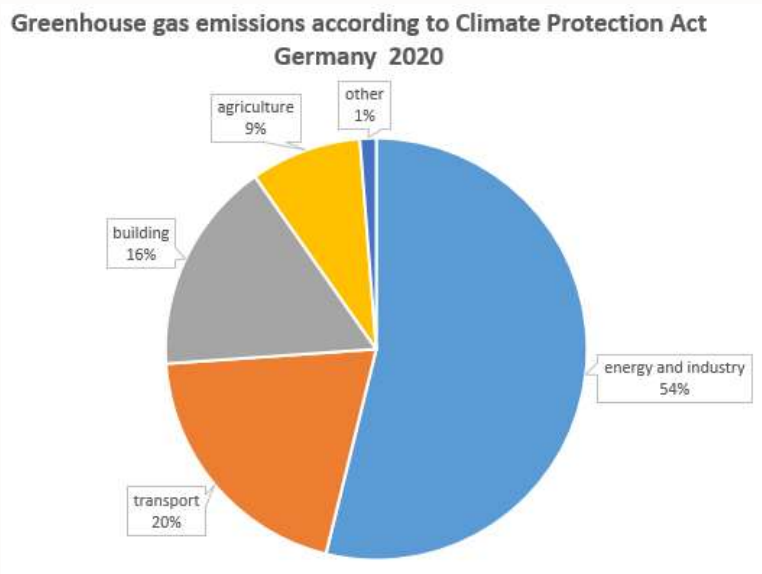
4. Example: Tyrolean climate strategy

- In order to be able to assess whether the climate targets have been achieved, corresponding **outcome/impact calculations** should be carried out.
- In combination with the costs of the measures (inputs), **cost-effectiveness analyses** could be carried out.
- If outcome measurements are not possible or only possible with great effort, at least **output measurements** should be made (project key figures).
- In order to ensure the implementation of these recommendations, the state of Tyrol should provide **additional staff** with the appropriate qualifications.

4. Example: Tyrolean climate strategy

A question of materiality:





- Conclusion 5 → focus more on sectors with greater greenhouse gas reduction potential (e.g. transport)!

4. Example: Tyrolean climate strategy

External factor: “fuel tourism”

4. Example: Tyrolean climate strategy

- Emission calculations in the transport sector are based on the amount of fuel sold domestically.
- A large part of the fuel sold in Tyrol is used abroad, but worsens the Tyrolean greenhouse gas balance!
- Around 25% of emissions from road transport are due to “fuel exports in vehicle tanks” (“fuel tourism”).
- The extent of “fuel tourism" depends on the price development of fuels at home and abroad.
- **Conclusion 6 → Tyrol cannot influence international fuel prices (external factor)!**

5. Global aspects

Exports and imports

- Greenhouse gases are allocated to the country of producers and not to the country of consumers.
- A consumption-based view would shift the international "CO2 ranking“!

5. Global aspects

Ranking by factor	Country	CO2 emissions by consumption, tons per capita 2020	CO2 emissions by production, tons per capita 2020	factor
1	Malta	16,61	3,10	5,36
2	Singapore	24,24	5,06	4,79
3	Switzerland	12,36	3,96	3,12
4	Togo	0,84	0,27	3,11
5	Hong Kong	10,77	4,20	2,56
6	Namibia	3,65	1,58	2,31
7	Cambodia	2,35	1,14	2,06
8	Mozambique	0,42	0,21	2,00
9	Latvia	7,35	3,69	1,99
10	Belgium	15,39	7,82	1,97
22	Lithuania	7,20	4,84	1,49
24	Slovenia	8,90	6,08	1,46
26	United Kingdom	6,93	4,87	1,42
33	France	5,82	4,34	1,34
38	Austria	9,12	6,96	1,31
40	Hungary	6,24	4,85	1,29
45	Ireland	8,82	7,11	1,24
54	Germany	9,23	7,67	1,20
56	Spain	5,35	4,50	1,19
60	Portugal	4,65	4,06	1,15
72	Netherlands	8,71	7,91	1,10
94	Brazil	2,00	2,07	0,97
96	Poland	7,47	7,90	0,95
100	Cyprus	5,48	5,87	0,93
111	Russia	9,34	11,15	0,84

source: https://ourworldindata.org, retrieved on 17.03.2023, own calculations.

5. Global aspects

Exports and imports

- European Union plans → “CO2 tariff” for goods imported from third countries → „Carbon Border Adjustment Mechanism“.
- **Conclusion 7 → International trade flows influence the CO2 balance of the countries!**

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Thanks for your attention!