Eppan, quo vadis?

Our municipality

For the last five years, Eppan has been my home of choice. I have come to know and love the municipality: the historic buildings, its villages and hamlets interspersed between vineyards and apple orchards with the forested mountains as a backdrop. This combination serves to make Eppan unique. It is precisely these elements, though – here referred to as Eppan's 'cultural capital' – which I fear are undervalued and are at risk from climate change impacts and uncontrolled development. The mitigation of these impacts can be achieved through recognition of the crises and the implementation of concrete strategies which are tied to Agenda 2030.

Global crises are local

It is all too easy to become inured to the daily bombardment of information on the crises we face. In this richly beautiful region, one can be lulled into thinking that the crises which beset the world are simply things that happen 'elsewhere'. However, they affect every region of the world and the cross-global impacts are expected to increase (International Panel on Climate Change 2023, 15).

In the Mediterranean region, the climate crisis has led to various impacts (figure 1), including species loss, heat risks to human health, and changes in food production (Ali et al. 2022, 16).

In Italy, temperatures are rising (Figure 1).

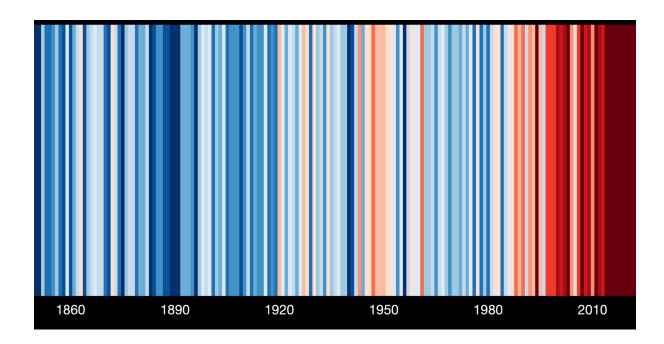


Figure 1.

Temperature change in Italy since 1850.

Source: Figure reproduced from Hawkins (n.d.).

South Tyrol is already feeling the effects of reduced snowfall. On the valley floor, the spring water supply is greatly diminished (Bertoldi et al. 2023, 2810). This is already impacting natural systems and human society (Rydén 2015 as quoted in Bertoldi et al. 2023, 2810). The water restrictions imposed by the Municipality of Eppan are testimony to this. The trend is expected to continue and worsen dramatically (Ibid.).

In March this year, the International Panel on Climate Change summarised its findings thus: "Climate change is a threat to human well-being and planetary health ... There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all" (International Panel on Climate Change 2023, 24). The next decade is crucial: the choices made and actions undertaken will dictate whether humanity has a chance of survival now and for thousands of years hence (International Panel on Climate Change 2023, 24).

Eppan's obligations

With Italy as a signatory to the Paris Agreement, the municipality has an obligation to localize the Agreement's concrete programme of action (Agenda 2030). This means going much further than giving tips to residents on saving water. It means fully committing to Agenda 2030 by formulating a concrete sustainability plan with specific targets and indicators for each of the 17 goals, while considering the three central tenets of Agenda 2030:

- a. cross-sectoral implementation
- b. the synergies and impacts which arise from each action, and
- c. the planetary boundaries (Figure 2).

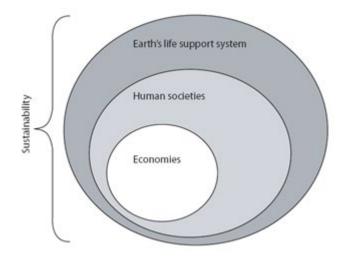


Figure 2. Sustainable Development Paradigm for the Anthropocene

Source: Figure reproduced from Rockström (2015, 2).

The Rastwiesen Project

A discussion of the Council's approach to sustainable development regarding the Rastwiesen Project shows that the key tenets of SD have not been considered.



Figure 3. The Rastwiesen meadows (circled).

Source: Author's own (2023).

a) Urban sprawl

Every new build eats into the natural landscape. The prevention of urban sprawl is a key element of SD (United Nations 2017, 25). In 2010, the Council of Eppan was warned about the development which threatened its cultural capital:

Over the course of the last decades, large area of the once harmonious landscape and settlements have been afflicted by sprawling and scattered development which is at odds with the landscape and agriculture. The large-scale and diverse landscape is thus highly at risk; without effective development control measures, the entire Eppan plateau will sooner or later turn into an amorphous urban agglomeration (Autonome Provinz Bozen-Südtirol 2010, 5).

The new Rastwiesen project is touted as 'sustainable' because it provides for more social housing through new construction and is interspersed with trees. However, there are more than 1000 empty apartments scattered across the municipality. Compounding this are the countless second houses which lie empty for all but a few weeks of the year. Eppan does not have a lack of housing; it has a problem with the *efficient* use of its housing stock.

The problem with apartments sitting empty is well-known across South Tyrol. It can be addressed through **SDG 11: Sustainable cities and communities**



Example strategy to increase housing without construction on the Rastwiesen:

- Council of Eppan becomes manager of empty apartments (Lisbon model). Owners of apartments receive a bonus for assistance in retrofitting their homes to make them more energy-efficient. Apartments will be rented out on a priority basis:
 - homeless population
 - social housing

• everyday rentals

Target 11.1.1: decrease number empty apartments

Indicator and timeline: reduce empty apartments across municipality from 1200 to 800 by 2025; to \approx 0 by 2030

Target 11.1.2: increase % empty apartments released to rental market

Indicator and timeline: Eppan as landlord (baseline = 0) to 400 by 2025; 800 by 2028; 1000 by 2030

Such a strategy not only limits urban sprawl. It also avoids the felling of trees.

The implementation of SDG 11.1 brings synergies across the other goals (figure _).



Figure _. Synergies across the 17 SDGs through implementation of SDG 11.1 *Source:* (European Commission n.d.)

b) Felling of trees

There is (rightly) uproar about the felling of trees in the Amazon basin, yet the project for the Rastwiesen sees most of the 250+ trees felled. Rastwiesen is a veritable green lung in the middle of the municipality. Trees provide habitats for species and increase biodiversity (Sascor and Roberti n.d., 22), serve as a means for carbon storage and sequestration (Russo et al. 2014), and are a key element in fighting the heat island effect and improving ground permeability (Sascor and Roberti n.d., 22).

If the above strategy with housing is implemented, trees do not need to be felled for new construction.

SDG 15 – Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests ... and halt biodiversity loss – should be implemented with appropriate targets and indicators.



Target 15.1: Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

• Target 15.1.1 forest preservation

Indicator: Increase forest area as a proportion of total land area

- Target 15.1.2 Climate change mitigation through carbon storage and sequestration Indicator: Continued carbon storage and sequestration of 260 kg C and 585 kg C per tree/annum (mean average) for the 250 trees on the property
- Target 15.1.3: Maintaining green space Indicator: Positive evaluation from the Province of Bozen with the next Report on Eppan's Zoning Strategies to be published in 2030
- Target 15.1.4. Retention of natural fauna habitat within the village Indicator: Bird species and numbers at least maintained from baseline count pre-development

Where to from here?

Sustainable development is the biggest transformation the world has seen since the industrial revolution. It requires behavioural change and making decisions which may not be popular. This means moving away from regarding SD as a political vote-scorer and instead implementing a sustainable development plan which truly works for the common good.

Eppan's 2015 shadow election results give some indication of the younger generation's voting allegiances. The results were the inverse of the real thing, with the party more in tune with sustainability issues in pole position. This should give the ruling parties some pause for thought about the current approach to sustainability.

I have shown how Agenda 2030 can be contextually implemented to solve the urban sprawl and housing problem by addressing the Rastwiesen Project. The example strategies show how SD is systematic and respects the planetary boundaries: solving the housing problem prevents urban sprawl and also allows the forest to remain with all the benefits that brings.

Agenda 2030 was meant to be implemented in such a way with attention to all of the goals. This requires leadership from within the council. A concrete sustainable development path can be devised by:

- conducting a baseline diagnosis of the socioeconomic and environmental context
- forming mentoring partnerships with councils in regions with more advanced sustainable development capabilities (e.g., councils in Flanders, and the Nordic countries)
- moving from isolated and single initiatives to a cross-sectoral implementation of coordinated strategies

- > prioritising the natural landscape and its ecosystems
- > formulating local targets and indicators for each of the 17 goals
- > ascertaining an implementation timeline
- devising appropriate monitoring tools

Finally, SD is a complex beast; I don't profess to have the answers. What I do have is some knowledge of Agenda 2030 implementation and a voice.

If this can spark a conversation with even a small number of people within the municipality, then it will be a success.

I welcome feedback and suggestions and thoughts and look forward to the opportunity to organise a discussion evening based on the ideas outlined here.

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References

Ali, E., W. Cramer, J. Carnicer, E. Georgopoulou, N.J.M. Hilmi, G. Le Cozannet, and P. Lionello. 2022. "Cross-Chapter Paper 4: Mediterranean Region Supplementary Material." In *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem and B. Rama.

Bozen-Südtirol. Provinz 03.03.2010 2010. Autonome Gemeinde Eppan Landschaftsplan: Beschluss der Landesregierung. [Landscape Plan: Regional Government]. Resolution of the No. 356. http://gis2.provinz.bz.it/mapAccel/docs/Landbrowser docs/ErlauterndeBericht e DE/18 erb.pdf.

- Bertoldi, Giacomo, Michele Bozzoli, Alice Crespi, Michael Matiu, Lorenzo Giovannini, Dino Zardi, and Bruno Majone. 2023. "Diverging Snowfall Trends Across Months and Elevation in the Northeastern Italian Alps." *International Journal of Climatology* 43 (6): 2794-2819. https://doi.org/10.1002/joc.8002.
- European Commission. n.d. "SDG Interlinkages Visualization Tool Target Level." Accessed June 7, 2023. <u>https://knowsdgs.jrc.ec.europa.eu/interlinkages-targets</u>.
- International Panel on Climate Change. 2023. *Summary for Policymakers* (Geneva, Switzerland). <u>https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pd</u>
- <u>f</u>. Sascor, Emanuele, and Francesca Roberti. n.d. *Aktionsplan für Nachhaltige Energie und Klima der Stadt Bozen.* (Bozen, Italy). <u>https://opencity.gemeinde.bozen.it/ocmultibinary/download/81122/1053149/7/</u> <u>3f5fdc6cd4a1b18058f4ec5bfd110c52.pdf/file/PAESC_TED.pdf</u>.
- United Nations. 2017. New Urban Agenda. <u>https://habitat3.org/the-new-urban-agenda/</u>.