

Call for Papers for a Special Issue
on
Land use competition in societal transformation
in the journal
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Guest edited by:

Mathias Jehling, Ramona Voßhage, Tobias Krüger and Martin Behnisch
(*Leibniz-Institut für Ökologische Raumentwicklung e.V., Dresden, Germany*)

Scope

Societal transformation towards sustainability (Hölscher/Wittmayer/Loorbach 2018) goes hand in hand with a fundamental shift in how land is used. New competing demands on land challenge policies and practices in spatial planning and development. Currently, the paradigm for sustainable land use argues for land take to be reduced substantially, moving towards a circular land use economy (Bovet/Reese/Köck 2018). National and international studies show that, while the momentum is tending to slow down in some countries, land take in general still remains high and is leading to urban sprawl (Oueslati/Alvanides/Garrod 2015; Meinel/Henger/Krüger et al. 2020; Behnisch/Krüger/Jaeger 2022). In reaction to this, policies and goals towards no-net land take policies have been introduced on European level (Bovet/Reese/Köck 2018) and also in many member states and countries worldwide. The target is to ensure that human activities are land take neutral and to protect soil, both in terms of its qualities and in terms of the quantitative amount of land in agricultural use or under natural conditions (Lacoere/Hengstermann/Jehling et al. 2023). In particular across Europe, a process of integration of instruments to implement such aims within spatial planning is ongoing (Schatz/Bovet/Lieder et al. 2021). On a national or international scale, managing growth has become a key topic for research and practice in spatial planning (Siedentop/Schmidt/Dunlop 2022). However, while a reduction in the land take rate could be seen as a first success, current societal developments highlight the narrow focus of no-net land take policies. In the wider sense of sustainability, the way how we use land should allow us to live within ecological boundaries and ensuring planetary justice. This means that ecological aspect of preserving open land competes strongly with demands from a transformation of society and economy. Hence, further competing land uses challenge the focus on land take and go well beyond debates on urban sprawl and a focus on settlement area that includes the effects of low urban densities in housing or industries on ecology, livelihood or mobility (OECD 2018).

In these times of societal transformation, the types of competition for land are manifold, ranging from housing to renewable energy. Affordable and accessible housing is becoming a societal problem in many agglomerations. While infill potentials are considered to be ever scarcer, arguments for expansion on greenfield sites are becoming more prominent (Ehrhardt/Eichhorn/Behnisch 2022). When it comes to urban transformation, housing provision also raises the question of the interplay between private property rights and public land policies (Gerber/Knoepfel/Nahrath et al. 2009). Also, the locational requirements of industrial activities and commerce reveal the dilemma between preserving land at such locations or supplying the land required for the current needs of economic development (Jehling/Krehl/Krüger 2021). Furthermore, transformation to low carbon energy systems also involves a conflict of goals with ecology. Renewable energies using photovoltaic and wind go hand in hand with extensive demands for land (Masurowski/Drechsler/Frank 2016; Bennat/Broekel/Sternberg 2019) and compete with the habitats of humans, flora and fauna and thus with ecosystems (Bennun/van Bochove/Ng et al. 2021). Agricultural productivity and nature conservation are further competing interests that require people to take sides within ecological boundaries and demands for planetary justice.

Sustainability transformation, as shown by the examples, goes hand in hand with new questions on how we utilise land. Should agricultural land be extensively used for urban expansion for more housing, as this is considered much cheaper and quicker than urban densification? Should renewable energy be located on land that is currently used for food production and habitats? Housing issues involve the competing interests inherent to allowing more people to dwell in cities, while protecting livelihoods in cities and keeping land consumption at bay. Energy transformation here acts as a case in point for the conflict between climate neutral energy provision and no-net land take goals.

Research Gap

On one side, there are evolving new demands on land that challenge recent achievements in reducing land take. On the other side, the demands compete with each other for land as a resource needed to make societies more sustainable. Land policies and spatial planning in particular have the means to find solutions that balance competing interests. However, they need to be seen within their capabilities and limitations, when it comes to emerging competitions. Hence, new research is needed to position land policies and spatial planning on regional or local scale, as they emerge as a cause of current conflicts (Buitelaar/Leinfelder 2020) but also as part of solutions (Siedentop/Schmidt/Dunlop 2022).

Against the backdrop of land use competition in societal transformation, research is required that looks at land use dynamics through the lens of a circular land use economy. Further research is needed that identifies viable solutions and new approaches for land policies and spatial planning that involve public actors and private landowners. Here, more knowledge is required on instruments and processes that support the efficient use of land, which remains a scarce resource. The following questions emerge: How suitable are these solutions for finding sustainable development pathways? To do so, they require political will, but foremost knowledge on spatial dynamics and land use change as well as requirements to protect urban and rural livelihoods. Which data, indicators and analytical approaches are needed to advance this knowledge? Which future scenarios arise from current and future needs for a sustainability transformation?

Aim

The aim of this special issue is to collect contributions that address competing land uses within societal transformation on a conceptual and methodological level. Further, we are interested in empirical approaches that showcase inspiring and relevant cases of competing land use demands and viable pathways to solve these conflicts for sustainable land use within societal transformation. The special issue addresses approaches to land policies and spatial planning that seek to mitigate land use competition but also highlight conflicting goals within sustainability transformation. Of interest here are methods and applications to measure and assess land use change in urban to rural contexts, as well as scenarios that show future competition and envision solutions for sustainable development.

The Dresdner Flächennutzungssymposium 2024, to be held in June 2024, will serve as a starting point for the collaborative effort to develop this special issue. With this open call for papers, we encourage authors – also beyond the Dresdner Flächennutzungssymposium 2024 – to submit contributions to extend and enrich the debate in line with the journal’s aim to foster a national and international debate.

Relevant fields are:

- I. Land policy and land management and spatial planning
- II. Data, indicators and analysis of land use dynamics
- III. Scenarios and tools to support sustainable development

Publication Process and Organisation

The guest editors are highly interested in connecting the German debate on land use competition with the international and especially European debates. We welcome contributions in English and German.

Timetable

11/12 June 2024	Dresdner Flächennutzungssymposium 2024
30 September 2024	Deadline for submission of manuscripts

The initial online publication (online first) will take place approximately four weeks after the respective contribution has been accepted. The print publication of the special issue is scheduled for spring/summer 2025.

For subject-related queries, please contact the guest editor: Dr. Mathias Jehling (m.jehling@ioer.de). For organisational queries, please contact the Editor-in-Chief Prof. Dr. Andreas Klee (andreas.klee@arl-net.de).

References

Behnisch, M.; Krüger, T.; Jaeger, J.A.G. (2022): Rapid rise in urban sprawl: Global hotspots and trends since 1990. In: *PLOS Sustainability and Transformation* 1, 11, e0000034. <https://doi.org/10.1371/journal.pstr.0000034>

Bennat, T.; Broekel, T.; Sternberg, R. (2019): Zur Messung der Nutzung regionaler Potenziale beim Ausbau erneuerbarer Energien. Eine empirische Analyse deutscher Landkreise. In: *Raumforschung und Raumordnung | Spatial Research and Planning* 77, 6, 617–638. <https://doi.org/10.2478/rara-2019-0043>

Bennun, L.; van Bochove, J.; Ng, C.; Fletcher, C.; Wilson, D.; Phair, N.; Carbone, G. (2021): Mitigating biodiversity impacts associated with solar and wind energy development: Guidelines for project developers. Gland. <https://doi.org/10.2305/IUCN.CH.2021.04.en>

Bovet, J.; Reese, M.; Köck, W. (2018): Taming expansive land use dynamics – Sustainable land use regulation and urban sprawl in a comparative perspective. In: *Land Use Policy* 77, 837–845. <https://doi.org/10.1016/j.landusepol.2017.03.024>

Buitelaar, E.; Leinfelder, H. (2020): Public Design of Urban Sprawl: Governments and the Extension of the Urban Fabric in Flanders and the Netherlands. In: *Urban Planning* 5, 1, 46–57. <https://doi.org/10.17645/up.v5i1.2669>

Ehrhardt, D.; Eichhorn, S.; Behnisch, M.; Jehling, M.; Münter, A.; Schünemann, C.; Siedentop, S. (2022): Stadtregionen im Spannungsfeld zwischen Wohnungsfrage und Flächensparen. Trends, Strategien und Lösungsansätze in Kernstädten und ihrem Umland. In: *Raumforschung und Raumordnung | Spatial Research and Planning* 80, 5, 522–541. <https://doi.org/10.14512/rur.216>

Gerber, J.-D.; Knoepfel, P.; Nahrath, S.; Varone, F. (2009): Institutional Resource Regimes: Towards sustainability through the combination of property-rights theory and policy analysis. In: *Ecological Economics* 68, 3, 798–809. <https://doi.org/10.1016/j.ecolecon.2008.06.013>

Hölscher, K.; Wittmayer, J.M.; Loorbach, D. (2018): Transition versus transformation: What's the difference? In: *Environmental Innovation and Societal Transitions* 27, 1–3. <https://doi.org/10.1016/j.eist.2017.10.007>

Jehling, M.; Krehl, A.; Krüger, T. (2021): The more the merrier? Questioning the role of new commercial and industrial locations for employment growth in German city regions. In: *Land Use Policy* 109, 105653. <https://doi.org/10.1016/j.landusepol.2021.105653>

Lacoere, P.; Hengstermann, A.; Jehling, M.; Hartmann, T. (2023): Compensating Downzoning. A Comparative Analysis of European Compensation Schemes in the Light of Net Land Neutrality. In: *Planning Theory and Practice* 24, 2, 190–206. <https://doi.org/10.1080/14649357.2023.2190152>

Masurowski, F.; Drechsler, M.; Frank, K. (2016): A spatially explicit assessment of the wind energy potential in response to an increased distance between wind turbines and settlements in Germany. In: *Energy Policy* 97, 343–350. <https://doi.org/10.1016/j.enpol.2016.07.021>

Meinel, G.; Henger, R.; Krüger, T.; Schmidt, T.; Schorcht, M. (2020): Wer treibt die Flächeninanspruchnahme? Ein Planvergleich und deren Flächenwirkung. In: *Raumforschung und Raumordnung | Spatial Research and Planning* 78, 3, 233–248. <https://doi.org/10.2478/rara-2020-0003>

OECD – Organisation for Economic Co-operation and Development (2018): *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*. Paris. <https://doi.org/10.1787/9789264189881-en>

Oueslati, W.; Alvanides, S.; Garrod, G. (2015): Determinants of urban sprawl in European cities. In: *Urban Studies* 52, 9, 1594–1614. <https://doi.org/10.1177/0042098015577773>

Schatz, E.-M.; Bovet, J.; Lieder, S.; Schroeter-Schlaack, C.; Strunz, S.; Marquard, E. (2021): Land take in environmental assessments: Recent advances and persisting challenges in selected EU countries. In: *Land Use Policy* 111, 105730. <https://doi.org/10.1016/j.landusepol.2021.105730>

Siedentop, S.; Schmidt, S.; Dunlop, A. (2022): Managing Urban Growth at the Regional Level: A Review of the International Literature. In: *Raumforschung und Raumordnung | Spatial Research and Planning* 80, 6, 659–677. <https://doi.org/10.14512/rur.1653>