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## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

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### 10. Special Economic Zones and Territorial Cohesion: a TIA-Based Approach to Sustainable Development

*Irina Di Ruocco<sup>1</sup>*

#### *Abstract*

This chapter investigates how Territorial Impact Assessment (TIA) can be operationalized as a governance tool for sustainable development in Special Economic Zones (SEZs). It conceptualizes SEZs not merely as economic enclaves but as dynamic territorial ecosystems, requiring integrated and adaptive governance. Drawing on comparative case studies from Southern Italy and the Global South, the chapter analyses how different types and methodologies of TIA (e.g., ex-ante, ex-post, strategic, and tools like Territorial Efficiency, Quality, and Identity Layered Assessment, (TEQUILA), Strategic Territorial Multidimensional Assessment (STeMA), TARGET\_TIA) can be employed to align SEZ development with spatial justice, ecological sustainability, and stakeholder engagement. The chapter concludes by proposing a structured TIA-SEZ governance model, including an indicator-based monitoring system

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<sup>1</sup> Department of Economics, Mathematics and Statistics, University of Trieste, Via Alfonso Valerio, 4/1, 34127 Trieste, Italy, [irina.diruocco@deams.units.it](mailto:irina.diruocco@deams.units.it)



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aligned with the EU Green Deal, OECD cohesion strategies, and the UN SDGs (Sustainable Development Goals).

### ***Keywords***

*Special Economic Zones, Territorial Impact Assessment, Sustainable Development, Urban Planning.*



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---

### References

Aijaz, U., Hassan Daud Butt, D. S. B., Hayat, A., Raees, M. B., & Mazhar, M., 2022, “Dynamics of SEZs: A comparative analysis of incentive packages for special economic zones of Pakistan, Bangladesh & Vietnam”, *Journal of Positive School Psychology*, 6, 11, 1247–1269. URL: <http://184.168.115.16/index.php/jpsp/article/view/14147>, last accessed: [14 June 2025].

Aggarwal, A., 2017, Towards an integrated framework for special economic zones (SEZs): A dynamic institutional approach, Asia Research Centre, Copenhagen Business School, Copenhagen Discussion Papers No. 64

Alhosani, N., 2015, Mapping spatial patterns and urban morphology changes due to special economic zones in the United Arab Emirates using Landsat archival data. In: *Proceedings of the 36th Asian Conference on Remote Sensing: Fostering Resilient Growth in Asia (ACRS 2015)*, Quezon City, Metro Manila, Philippines. URL: <https://research.uaeu.ac.ac/en/publications/mapping-spatial-patterns-and-urban-morphology-changes-due-to-spec>, last accessed: [14 June 2025].

Alves, A. C., & Lee, C., 2022, “Knowledge transfer in the Global South: Reusing or creating knowledge in China’s special economic zones in Ethiopia and Cambodia?”, *Global Policy*, 13, 45–57. URL: <https://doi.org/10.1111/1758-5899.13060>



## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

Arbolino, R., Lantz, T. L., & Napolitano, O., 2022, “Assessing the impact of special economic zones on regional growth through a comparison among EU countries”, *Regional Studies*, 1–15. URL: <https://doi.org/10.1080/00343404.2022.2069745>

Bell, T. W., 2016, “Special economic zones in the United States: From colonial charters, to foreign-trade zones, toward USSEZs”, *Buffalo Law Review*, 64, 959–1000. URL: <https://heinonline.org/HOL/Page?handle=hein.journals/bufr64&div=36>

Borruso, G., 2020, Zone economiche speciali nel Mezzogiorno d’Italia di Michele Pigliucci, *Semestrale di studi e ricerche di geografia*. URL: <https://doi.org/10.13133/1125-5218.16803>

Brundu, B., 2017, *Zone franche: sviluppi e orientamenti geoeconomici: La Sardegna al centro del Mediterraneo*, FrancoAngeli, Milano.

Brussevich, M., 2024, “The socioeconomic impact of special economic zones: Evidence from Cambodia”, *The World Economy*, 47, 1, 362–387. URL: <https://doi.org/10.1111/twec.13526>

Camagni, R., 2017, Territorial Impact Assessment (TIA): A methodological proposal. In: Capello, R. (Ed.), *Seminal Studies in Regional and Urban Economics*, Springer, 1–20. URL: [https://doi.org/10.1007/978-3-319-57807-1\\_20](https://doi.org/10.1007/978-3-319-57807-1_20)

Carlucci, F., Ciciarelli, L., Coccorese, P., Cucini, C., Senatore, L., & Trincone,



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Edizioni

ISSN 2611-3171

## Special Economic Zones: Challenges and Opportunities for Territorial Development

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---

B., 2021, Le infrastrutture di trasporto: Analisi di accessibilità delle aree ZES in Campania. In: *Le politiche per lo sviluppo in Campania: ZES, piano per il lavoro, aree di crisi*, Vol. 1, UniorPress, 166–180. URL: <https://www.regione.campania.it/assets/documents/09-zes-rev-31-08.pdf>

Chaffin, B.C., Gosnell, H., Cosens, B.A., 2014, A decade of adaptive governance scholarship: synthesis and future directions, *Ecology and Society*, 19, 3, <https://doi.org/10.5751/ES-06824-190356>.

Cieślik, A., 2025, “Political economy of special economic zones location in Poland”, *Journal of Economics and Management*, 47, 1–24. URL: <https://doi.org/10.22367/jem.2025.47.01>

Danja, I. I., & Wang, X., 2024, “Matching comparative advantages to special economic zones for sustainable industrialization”, *Heliyon*, 10, 14, e34411. URL: <https://doi.org/10.1016/j.heliyon.2024.e34411>

Di Ruocco, I., 2024, Gli effetti delle ZES in Campania: Focus sugli impatti socio-economici e sulle infrastrutture, *Maritime Paper* (1), SRM. URL: <https://www.sr-m.it/it-cat-prod-322836-zes-campania.htm>

Di Ruocco, I., & D’Auria, A., 2024, “Are the SEZs a place of social and urban conflicts? A look under the perspective of geographical social justice and inclusion”, *Contesti. Città, Territori, Progetti*, 1, 192–211. URL: <https://doi.org/10.13128/contesti-15035>



## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

Di Ruocco, I., & D'Auria, A., 2025, "Implementing community impact evaluation (CIE) in special economic zones: Lessons from Campania (Italy) towards global practices", *Regional Science Policy & Practice*, 17, 3, 100169. URL: <https://doi.org/10.1016/j.rspp.2024.100169>

Di Ruocco, I., & D'Auria, A., 2023, "The multidimensional impact of Special Economic Zones in Campania Region. The TIA tool for land economic evaluation", *BDC. Bollettino Del Centro Calza Bini*, 23, 1, 133–155. URL: <https://doi.org/10.6093/2284-4732/10480>

Dumont, D., 2024, *Evaluating the Economic Impact of Special Economic Zones in Colombia: Employment, Export Performance, and Spillover Effects (2008–2017)*, Master's thesis.

Dunning, J.H., Lundan, S.M., 2008, *Multinational enterprises and the global economy*, Edward Elgar Publishing, Cheltenham.

ESPON ARTS, 2012, *Assessment of Regional and Territorial Sensitivity: Applied Research 2013/1/17, Final Report*, Luxembourg. URL: [https://archive.espon.eu/sites/default/files/attachments/ARTS-Draft-Final-Report-Part\\_AxB.pdf](https://archive.espon.eu/sites/default/files/attachments/ARTS-Draft-Final-Report-Part_AxB.pdf)

ESPON EATIA, 2013, *ESPON and Territorial Impact Assessment: Targeted Analysis, Final Report*, Luxembourg. URL: <https://archive.espon.eu/programme/projects/espon-2013/targeted-analyses/eatia-espon-and-territorial-impact-assessment>



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## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

ESPON TIPTAP, 2010, *Territorial Impact Package for Transport and Agricultural Policies: Applied Research Project 2013/1/6, Final Report*, Luxembourg. URL: [https://archive.espon.eu/sites/default/files/attachments/Final\\_Report\\_Part\\_C.pdf](https://archive.espon.eu/sites/default/files/attachments/Final_Report_Part_C.pdf)

ESPON, 2013, *Territorial Impact Assessment of Policies and EU Directives: A Practical Guidance*, Luxembourg: ESPON. URL: <https://archive.espon.eu/topics-policy/publications/guidance/territorial-impact-assessment-policies-and-eu-directives>

European Union, 2020, *Circular economy action plan*. URL: [https://environment.ec.europa.eu/strategy/circular-economy-action-plan\\_en](https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en), last accessed: [14 June 2025].

Farole, T., & Akinci, G. (Eds.), 2011, *Special economic zones: Progress, emerging challenges, and future directions*, World Bank Publications, Washington DC.

Farole, T., & Moberg, L., 2017, “Special economic zones in Africa: Political economy challenges and solutions”, *Journal of African Economies*, 26, 1, 14–36. URL: <https://doi.org/10.1093/acprof:oso/9780198796954.003.0012>

Favale, A. E., 2016, The port of Taranto: Its logistic development, *Sistemi di Logistica Review*, 4, Giordano Editore.

Fazia, C., 2018, La ZES di Gioia Tauro e le opportunità di sviluppo del



## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

territorio, *Urbanistica*, 278, 56. URL: <http://urbanisticainformazioni.it/IMG/pdf/ui278-279.pdf>

Ferrara, A. R., Nisticò, R., & Prota, F., 2022, “Zone economiche speciali: Potenzialità e limiti dello strumento”, *Rivista economica del Mezzogiorno*, 36, 4, 875–902. URL: <https://doi.org/10.1432/107769>

Frick, S. A., Rodríguez-Pose, A., & Wong, M. D., 2019, “Toward economically dynamic special economic zones in emerging countries”, *Economic Geography*, 95, 1, 30–64. URL: <https://doi.org/10.1080/00130095.2018.1467732>

Gallé, J., Overbeck, D., Riedel, N., & Seidel, T., 2024, “Place-based policies, structural change and female labor: Evidence from India’s special economic zones”, *Journal of Public Economics*, 240, 105259. URL: <https://doi.org/10.1016/j.jpubeco.2024.105259>

Giese, K., Thiel, A., 2015, “Chinese factor in the space, place and agency of female head porters in urban Ghana”, *Social & Cultural Geography*, 16, 4, 444-464. <https://doi.org/10.1080/14649365.2014.998266>

Gómez-Zaldívar, F., & Molina-Perez, E., 2021, “Evolution of the productive capabilities of Mexico: Economic complexity analysis for the development of special economic zones (SEZ)”, *The International Trade Journal*, 35, 1, 4–18. URL: <http://dx.doi.org/10.1080/08853908.2020.1851328>

Guagliano, C., & RIELA, S., 2005, Do special economic areas matter in



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ISSN 2611-3171

## Special Economic Zones: Challenges and Opportunities for Territorial Development

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---

attracting FDI? Evidence from Poland, Hungary, and Czech Republic, *ISLA Working Paper*, Milan: Centre for Research on Latin American Studies and Transition Economies, Bocconi University.

Herbst, M., Pechcińska, A., Hagemeyer, J., & Artymowska, P., 2024, “Spa (TIA) – A diffusion-oriented method of territorial impact assessment”, *Impact Assessment and Project Appraisal*, 1, 1–12. URL: <https://doi.org/10.1080/14615517.2024.2321547>

Hiên, P. T., & Oanh, H. T. T., 2019, An overview of various economic models in Vietnam and the experimental steps approaching special economic zones, *Vietnam Journal of Economic Research*. URL: <http://tapchikhdt.lhu.edu.vn>

Hu, M., Wang, Y., Xia, B., Jiao, M., & Huang, G., 2020, “How to balance ecosystem services and economic benefits? A case study in the Pearl River Delta, China”, *Journal of Environmental Management*, 271, 110917. URL: <https://doi.org/10.1016/j.jenvman.2020.110917>

Jenkins, R., Kennedy, L., Mukhopadhyay, P., & Pradhan, K. C., 2015, “Special economic zones in India: Interrogating the nexus of land, development and urbanization”, *Environment and Urbanization ASIA*, 6, 1, 1–17. URL: <http://dx.doi.org/10.1177/0975425315585426>

Kiesel, C., & Dannenberg, P., 2023, “Special Economic Zones in the Global South: Between integrated spaces and enclaves – a literature review”, *DIE ERDE – Journal of the Geographical Society of Berlin*, 154, 1–2, 5–19. URL:



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---

<https://doi.org/10.12854/erde-2023-606>

Li, H., Chen, P., & Grant, R., 2021, “Built environment, special economic zone, and housing prices in Shenzhen, China”, *Applied Geography*, 129, 102429. URL: <https://doi.org/10.1016/j.apgeog.2021.102429>

Manti, E., 2019, “Zone economiche speciali. Settori di intervento, aree produttive e poli logistici per una politica industriale nel Mezzogiorno”, *Rivista economica del Mezzogiorno*, 33, 3–4, 921–962. URL: <https://doi.org/10.1432/96264>

Medda, F., & Modelewska, M., 2020, “Sustainability of special economic zones in Poland: Between industrial heritage and regional planning”, *Sustainability*, 12, 5, 1872. URL: <https://doi.org/10.3390/su12051872>

Medeiros, E., 2015, “Territorial impact assessment and cross-border cooperation”, *Regional Studies, Regional Science*, 2, 1, 97–115. URL: <https://doi.org/10.1080/21681376.2014.999108>

OECD, 2015, *All on board: Making inclusive growth happen*, OECD Publishing, Paris. URL: <http://dx.doi.org/10.1787/9789264218512-en>

OECD, 2022, *OECD principles on urban policy*. URL: <https://www.oecd.org/en/about/programmes/oecd-programme-on-national-urban-policy/oecd-principles-on-urban-policy.html>

OECD, 2023, *Rethinking regional attractiveness in the new global*



## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

*environment*. URL: [https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/rethinking-regional-attractiveness-in-the-new-global-environment\\_ce30b383/a9448db4-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/rethinking-regional-attractiveness-in-the-new-global-environment_ce30b383/a9448db4-en.pdf)

Parwez, S., & Sen, V., 2016, “Special economic zone, land acquisition, and impact on rural India”, *Emerging Economy Studies*, 2, 2, 223–239. URL: <https://doi.org/10.1177/2394901516661104>

Pecqueur, B., 2005, Le développement territorial : une nouvelle approche des processus de développement pour les économies du Sud. In: Antheaume, B., Giraut, F. (Eds.), *Le territoire est mort, vive les territoires !*, IRD Éditions, Marseille, 295–316. <https://doi.org/10.4000/books.irdeditions.3369>.

Pigliucci, M., 2019, *Le Zone Economiche Speciali nel Mezzogiorno d'Italia*, Edizioni Nuova Cultura, Roma.

Prezioso, M., 2020, “STeMA: A sustainable territorial economic/environmental management approach”, in *Territorial Impact Assessment*, 55–76. URL: [https://doi.org/10.1007/978-3-030-54502-4\\_4](https://doi.org/10.1007/978-3-030-54502-4_4)

Prezioso, M., 2024, “Territorial Impact Assessment, Cost Benefit Analysis and Do Not Significant Harms principle for sustainable works and plans design”, *Revista de Estudios Andaluces*, 48, 221–238. URL: <https://dx.doi.org/10.12795/rea.2024.i48.11>

Rindone, C., Cirianni, F. M., Delfino, G., & Croce, A. I., 2022, Special



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ISSN 2611-3171

## Special Economic Zones: Challenges and Opportunities for Territorial Development

*Michele Pigliucci (Ed.)*

---

economic zones planning for sustainable ports: The role of research and training in the Calabria Region. In: *International Conference on Computational Science and Its Applications*, Springer, Cham, 85–97. URL: [https://doi.org/10.1007/978-3-031-10548-7\\_7](https://doi.org/10.1007/978-3-031-10548-7_7)

Soja, E., 2013, *Seeking spatial justice*, University of Minnesota Press, Minneapolis.

Territorial Agenda, 2021, *Online survey: Territorial impact assessment*. URL: <https://territorialagenda.eu/news-articles/online-survey-territorial-impact-assessment/>

Tranquilli, S., 2020, “Le ‘zone economiche speciali’ e la coesione territoriale: Indagine comparata nell’Unione Europea e analisi del tentativo italiano”, *Il Diritto dell’Economia*, 102, 2, 427–463. URL: <https://www.ildirittodelleconomia.it/wp-content/uploads/2020/09/16Tranquilli.pdf>

Ugalde-Hernández, O., 2019, “Study of a relational-cognitive network in Costa Rica: The case of the special economic zone for medical devices in El Coyol, Costa Rica”, *Review of Socio-Economic Perspectives*, 4, 1, 71–89. URL: <https://doi.org/10.19275/RSEP064>

UNCTAD, 2023, *Trade and Development Report 2023*. URL: [https://unctad.org/system/files/official-document/tdr2023\\_en.pdf](https://unctad.org/system/files/official-document/tdr2023_en.pdf)

UN-Habitat, 2022, *Integrating the SDGs in Urban Project Design*



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il Sileno  
Edizioni

ISSN 2611-3171

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*Michele Pigliucci (Ed.)*

---

– *Recommendations from the Global Future Cities Programme*, United Nations Human Settlements Programme (UN-Habitat), Nairobi. Available at: <https://unhabitat.org/integrating-the-sdgs-in-urban-project-design-global-future-cities-programme> [Accessed 20 June 2025]

World Health Organization (WHO), 2021, *Health equity and its determinants*. URL: [https://cdn.who.int/media/docs/default-source/world-health-day-2021/health-equity-and-its-determinants.pdf?sfvrsn=6c36f0a5\\_1&download=true](https://cdn.who.int/media/docs/default-source/world-health-day-2021/health-equity-and-its-determinants.pdf?sfvrsn=6c36f0a5_1&download=true)

Yang, D., Luan, W., Li, Y., Zhang, Z., & Tian, C., 2023, “Multi-scenario simulation of land use and land cover based on shared socioeconomic pathways: The case of coastal special economic zones in China”, *Journal of Environmental Management*, 335, 117536. URL: <https://doi.org/10.1016/j.jenvman.2023.117536>

Zeng, D.Z., 2019, “Special economic zones: Lessons from the global experience”, *Journal of International Commerce and Economics*, 11, 1, 1–35. URL: [https://assets.publishing.service.gov.uk/media/586f9727e5274a130700012d/PEDL\\_Synthesis\\_Paper\\_Piece\\_No\\_1.pdf](https://assets.publishing.service.gov.uk/media/586f9727e5274a130700012d/PEDL_Synthesis_Paper_Piece_No_1.pdf)