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Green urban evaluation index for the central districts of cities in developing countries: case of Jordan

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Abstract

This study seeks to develop a sustainable urban assessment tool for the central districts of cities in developing countries such as Jordan. The study employed a mixed-methods approach that included examining existing and well-known urban sustainable assessment tools to identify areas of convergence and distinction; conducting a focus group discussion with sustainable development experts to identify relevant local conditions; and disseminating a web-based questionnaire to sustainability experts. The Delphi technique and analytic hierarchy process were implemented to combine the opinions of sustainability experts, define the weightings of the assessment items, and reach a consensus. Finally, the outputs were analysed to create a tool suitable for the local conditions of Jordanian city centres. The outcome of this study is a sustainable urban assessment checklist composed of 11 categories, 75 criteria, and 485 measurements. The findings show that “site categories” are regarded as the most relevant and important, followed by “site analysis” and “land planning”, together accounting for more than half of the total assessment points (51%). The results show that to ensure the city centre’s sustainability, a framework for assessing such central districts is urgently required to direct the awareness of specialists, developers, and decision-makers towards urban sustainability.

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References

* Alawneh, R., F. Ghazal, H. Ali, and A.F. Sadullah. 2018. A novel framework for integrating united nations sustainable development goals into sustainable non-residential building assessment and management in Jordan. *Sustainable Cities and Society* 49: 101612. <https://doi.org/10.1016/j.scs.2019.101612>.

[**Article**](https://doi.org/10.1016%2Fj.scs.2019.101612)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=A%20novel%20framework%20for%20integrating%20united%20nations%20sustainable%20development%20goals%20into%20sustainable%20non-residential%20building%20assessment%20and%20management%20in%20Jordan&journal=Sustainable%20Cities%20and%20Society&doi=10.1016%2Fj.scs.2019.101612&volume=49&publication_year=2018&author=Alawneh%2CR&author=Ghazal%2CF&author=Ali%2CH&author=Sadullah%2CAF)

* Ali, H.H., and S.F. Al Nsairat. 2009. Developing a green building assessment tool for developing countries—Case of Jordan. *Building and Environment* 44 (5): 1053–1064.

[**Article**](https://doi.org/10.1016%2Fj.buildenv.2008.07.015)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Developing%20a%20green%20building%20assessment%20tool%20for%20developing%20countries%E2%80%94Case%20of%20Jordan&journal=Building%20and%20Environment&doi=10.1016%2Fj.buildenv.2008.07.015&volume=44&issue=5&pages=1053-1064&publication_year=2009&author=Ali%2CHH&author=Al%20Nsairat%2CSF)

* Ali, H.H., D.K. Barakat, and A.A. Sharif. 2021. Establishing a green building certification scheme and standards for multifamily residential buildings: Case of Jordan. *Journal of Architectural Engineering* 27 (2): 05021003.

[**Article**](https://doi.org/10.1061%2F%28ASCE%29AE.1943-5568.0000468)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Establishing%20a%20green%20building%20certification%20scheme%20and%20standards%20for%20multifamily%20residential%20buildings%3A%20Case%20of%20Jordan&journal=Journal%20of%20Architectural%20Engineering&doi=10.1061%2F%28ASCE%29AE.1943-5568.0000468&volume=27&issue=2&publication_year=2021&author=Ali%2CHH&author=Barakat%2CDK&author=Sharif%2CAA)

* Alqahtany, A. 2014. *The development of a consensus-based framework for a sustainable urban planning of the city of Riyadh*. Cardiff: Cardiff University.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=The%20development%20of%20a%20consensus-based%20framework%20for%20a%20sustainable%20urban%20planning%20of%20the%20city%20of%20Riyadh&publication_year=2014&author=Alqahtany%2CA)

* Alqahtany, A., Y. Rezgui, and H. Li. 2014. A consensus-based framework for the sustainable urban planning development: As an approach for Saudi Arabian cities. *International Journal of Environmental Science and Development* 5 (2): 124–131.

[**Article**](https://doi.org/10.7763%2FIJESD.2014.V5.463)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=A%20consensus-based%20framework%20for%20the%20sustainable%20urban%20planning%20development%3A%20As%20an%20approach%20for%20Saudi%20Arabian%20cities&journal=International%20Journal%20of%20Environmental%20Science%20and%20Development&doi=10.7763%2FIJESD.2014.V5.463&volume=5&issue=2&pages=124-131&publication_year=2014&author=Alqahtany%2CA&author=Rezgui%2CY&author=Li%2CH)

* Ameen, R.F. 2017. *A framework for the sustainability assessment of urban design and development in Iraqi cities*. Riyadh: Cardiff University.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=A%20framework%20for%20the%20sustainability%20assessment%20of%20urban%20design%20and%20development%20in%20Iraqi%20cities&publication_year=2017&author=Ameen%2CRF)

* Ameen, R.F.M., and M. Mourshed. 2019. Urban sustainability assessment framework development: The ranking and weighting of sustainability indicators using analytic hierarchy process. *Sustainable Cities and Society* 44: 356–366. <https://doi.org/10.1016/j.scs.2018.10.020>.

[**Article**](https://doi.org/10.1016%2Fj.scs.2018.10.020)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Urban%20sustainability%20assessment%20framework%20development%3A%20The%20ranking%20and%20weighting%20of%20sustainability%20indicators%20using%20analytic%20hierarchy%20process&journal=Sustainable%20Cities%20and%20Society&doi=10.1016%2Fj.scs.2018.10.020&volume=44&pages=356-366&publication_year=2019&author=Ameen%2CRFM&author=Mourshed%2CM)

* Ameen, R.F.M., Mourshed, M., and H. Li. 2014. Sustainability assessment methods of urban design: A review. In EG-ICE 2014. In European Group for Intelligent Computing in Engineering—21st International Workshop. <https://www.researchgate.net/publication/277570536_Sustainability_assessment_methods_of_urban_design_A_review>.
* Ameen, R.F.M., M. Mourshed, and H. Li. 2015. A critical review of environmental assessment tools for sustainable urban design. *Environmental Impact Assessment Review* 55: 110–125.

[**Article**](https://doi.org/10.1016%2Fj.eiar.2015.07.006)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=A%20critical%20review%20of%20environmental%20assessment%20tools%20for%20sustainable%20urban%20design&journal=Environmental%20Impact%20Assessment%20Review&doi=10.1016%2Fj.eiar.2015.07.006&volume=55&pages=110-125&publication_year=2015&author=Ameen%2CRFM&author=Mourshed%2CM&author=Li%2CH)

* Aruldoss, M., T.M. Lakshmi, and V.P. Venkatesan. 2013. A survey on multi criteria decision making methods and its applications. *American Journal of Information Systems* 1 (1): 31–43.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=A%20survey%20on%20multi%20criteria%20decision%20making%20methods%20and%20its%20applications&journal=American%20Journal%20of%20Information%20Systems&volume=1&issue=1&pages=31-43&publication_year=2013&author=Aruldoss%2CM&author=Lakshmi%2CTM&author=Venkatesan%2CVP)

* Atack, J., and R.A. Margo. 1998. Location, location, location!” the price gradient for vacant urban land: New York, 1835 to 1900. *Journal of Real Estate Finance and Economics* 16 (2): 151–172.

[**Article**](https://doi.org/10.1023%2FA%3A1007703701062)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Location%2C%20location%2C%20location%21%E2%80%9D%20the%20price%20gradient%20for%20vacant%20urban%20land%3A%20New%20York%2C%201835%20to%201900&journal=Journal%20of%20Real%20Estate%20Finance%20and%20Economics&doi=10.1023%2FA%3A1007703701062&volume=16&issue=2&pages=151-172&publication_year=1998&author=Atack%2CJ&author=Margo%2CRA)

* BIRD, J. 2007. *Centrality and cities*, 7th ed. London: Taylor and Francis.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Centrality%20and%20cities&publication_year=2007&author=BIRD%2CJ)

* Brilhante, O., and J. Klaas. 2018. Green city concept and a method to measure green city performance over time applied to fifty cities globally: Influence of GDP, population size and energy efficiency. *Sustainability* 10 (6): 2031.

[**Article**](https://doi.org/10.3390%2Fsu10062031)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Green%20city%20concept%20and%20a%20method%20to%20measure%20green%20city%20performance%20over%20time%20applied%20to%20fifty%20cities%20globally%3A%20Influence%20of%20GDP%2C%20population%20size%20and%20energy%20efficiency&journal=Sustainability&doi=10.3390%2Fsu10062031&volume=10&issue=6&publication_year=2018&author=Brilhante%2CO&author=Klaas%2CJ)

* Burayidi, M.A. 2018. Downtown revitalization in small and midsized cities. <https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/PAS-Report-590.pdf>.
* Chattopadhyay, A.C.R.N. 2020. Satellite towns in neo-metropolitan development in India: Lessons from selected cities. ed. by U. Andrew Kirby. Arizona State University, Springer.
* City of Windsor. 2017. Downtown windsor enhancement strategy and community improvement plan.
* Cobbett, W. et al. 2012. Cities Alliance 2012 Annual Report: Cities Without Slums. <https://www.citiesalliance.org/sites/default/files/2019-01/AnnualReport-2012-LR.pdf>.
* Distel, M. 2018. Enhancing sustainability through urban ecology : madrid as a case study. Virginia Tech NR 5634: Urban Ecology, 5634, 1–6.
* DoS. 2015. Jordan Statistics Year Book 2015. <http://dosweb.dos.gov.jo/products/statistical-yearbook2015/>.
* Ferenc, Szani, László Pitlik, and A.N.L. Anikó Balogh. 2018. Pairwise object comparison based on Likert-scales and time series or about the term of human-oriented science from the point of view of artificial intelligence and value surveys. <https://miau.my-x.hu/miau/231/mtu2017/ertekkutatas_mtu_3_full_en_1027.pdf>.
* Ferguson, G. 2005. Characteristics of successful downtowns: shared attributes of outstanding small & mid-sized downtown. Ithaca (NY) Downtown. <http://www.cardi.cornell.edu/main_street_revitalization/index.php>.
* Freire, M. 2006. Urban planning : challenges in developing countries. Línea III. Desarrollo urbano. Ciudad sostenible, 1–14. <http://www.reduniversitaria.es/ficheros/MilaFreire%28i%29.pdf%0Awww.reduniversitaria.es/ficheros/MilaFreire(i).pdf>.
* Haapio, A. 2012. Towards sustainable urban communities. *Environmental Impact Assessment Review* 32 (1): 165–169.

[**Article**](https://doi.org/10.1016%2Fj.eiar.2011.08.002)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Towards%20sustainable%20urban%20communities&journal=Environmental%20Impact%20Assessment%20Review&doi=10.1016%2Fj.eiar.2011.08.002&volume=32&issue=1&pages=165-169&publication_year=2012&author=Haapio%2CA)

* Hadadin, N., M. Qaqish, E. Akawwi, and A. Bdour. 2010. Water shortage in Jordan—Sustainable solutions. *Desalination* 250 (1): 197–202.

[**Article**](https://doi.org/10.1016%2Fj.desal.2009.01.026)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Water%20shortage%20in%20Jordan%E2%80%94Sustainable%20solutions&journal=Desalination&doi=10.1016%2Fj.desal.2009.01.026&volume=250&issue=1&pages=197-202&publication_year=2010&author=Hadadin%2CN&author=Qaqish%2CM&author=Akawwi%2CE&author=Bdour%2CA)

* Hegazy, I., W. Seddik, and H. Ibrahim. 2017. Towards green cities in developing countries: Egyptian new cities as a case study. *International Journal of Low-Carbon Technologies* 12 (4): 358–368.

[**Article**](https://doi.org/10.1093%2Fijlct%2Fctx009)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Towards%20green%20cities%20in%20developing%20countries%3A%20Egyptian%20new%20cities%20as%20a%20case%20study&journal=International%20Journal%20of%20Low-Carbon%20Technologies&doi=10.1093%2Fijlct%2Fctx009&volume=12&issue=4&pages=358-368&publication_year=2017&author=Hegazy%2CI&author=Seddik%2CW&author=Ibrahim%2CH)

* Karlsson, S., and M. Nilsson. 2017. What makes a city centre attractive from a consumer perspective? A comparison between residents and visitors of Kristianstad city centre. School of Health and Society.
* Lewis, E. 2015. Green city development tool kit. <https://www.adb.org/>.
* Libovich, A. 2005. Assessing Green buildings for sustainable cities. in The 2005 World Sustainable Building Conference. Tokyo, 1968–1971. <https://www.irbnet.de/daten/iconda/CIB3797.pdf>.
* Lin, K.W., and C.M. Shih. 2018. The comparative analysis of neighborhood sustainability assessment tool. *Environment and Planning B: Urban Analytics and City Science* 45 (1): 90–105.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=The%20comparative%20analysis%20of%20neighborhood%20sustainability%20assessment%20tool&journal=Environment%20and%20Planning%20B%3A%20Urban%20Analytics%20and%20City%20Science&volume=45&issue=1&pages=90-105&publication_year=2018&author=Lin%2CKW&author=Shih%2CCM)

* Litman, T. 2004. The value of downtown. <https://www.vtpi.org/downtown.pdf>.
* Lloyd-Jones, T. 2004. Urban design for sustainability: Final report of the Working Group on Urban Design for Sustainability to the European Union Expert Group on the Urban. <http://ec.europa.eu/environment/urban/pdf/0404final_report.pdf>.
* Lützkendorf, T., and M. Balouktsi. 2017. Assessing a sustainable urban development: Typology of indicators and sources of information. *Procedia Environmental Sciences* 38: 546–553.

[**Article**](https://doi.org/10.1016%2Fj.proenv.2017.03.122)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Assessing%20a%20sustainable%20urban%20development%3A%20Typology%20of%20indicators%20and%20sources%20of%20information&journal=Procedia%20Environmental%20Sciences&doi=10.1016%2Fj.proenv.2017.03.122&volume=38&pages=546-553&publication_year=2017&author=L%C3%BCtzkendorf%2CT&author=Balouktsi%2CM)

* Maryland. 2010. Going green downtown a sustainability guide for Maryland’s main streets. Maryland. <https://archive.epa.gov/region03/green/web/pdf/green_guide.pdf>.
* Mau-Crimminsa, T., J.E. de Steiguera, and D. Dennisb. 2005. AHP as a means for improving public participation : A pre-post experiment with university students. *Forest Policy and Economics* 7 (4): 501–514.

[**Article**](https://doi.org/10.1016%2Fj.forpol.2003.08.001)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=AHP%20as%20a%20means%20for%20improving%20public%20participation%20%3A%20A%20pre-post%20experiment%20with%20university%20students&journal=Forest%20Policy%20and%20Economics&doi=10.1016%2Fj.forpol.2003.08.001&volume=7&issue=4&pages=501-514&publication_year=2005&author=Mau-Crimminsa%2CT&author=Steiguera%2CJE&author=Dennisb%2CD)

* Niagara CIP. 2004. Downtown Niagara falls community improvement. Niagara Falls. <https://downtownniagarafalls.com/uploads/2021/03/downtown-niagara-falls-CIP-november-2004.pdf>.
* Pace, R., G. Churkina, and M. Rivera. 2016. How green is a “ Green City ”? A review of existing indicators and approaches. IASS Working Paper.
* Reijnders, L., and A. Van Roekel. 1999. Comprehensiveness and adequacy of tools for the environmental improvement of buildings. *Journal of Cleaner Production* 7 (3): 221–225.

[**Article**](https://doi.org/10.1016%2FS0959-6526%2899%2900080-3)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Comprehensiveness%20and%20adequacy%20of%20tools%20for%20the%20environmental%20improvement%20of%20buildings&journal=Journal%20of%20Cleaner%20Production&doi=10.1016%2FS0959-6526%2899%2900080-3&volume=7&issue=3&pages=221-225&publication_year=1999&author=Reijnders%2CL&author=Roekel%2CA)

* Schwab, K. 2016. The global competitiveness report 2016–2017, Giornale Botanico Italiano.
* Sevilla, L. 2016. *Social, economic and political impact of Syrian refugees in Jordan*. Helsinki: Metropolia University of Applied Sciences.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Social%2C%20economic%20and%20political%20impact%20of%20Syrian%20refugees%20in%20Jordan&publication_year=2016&author=Sevilla%2CL)

* Shalaby, H., and S. Aboelnaga. 2017. Climate change impacts on urban planning in the cities. In 1st International Conference on Towards a Better Quality of Life, 1–13.
* Shareef, S.L., and H. Altan. 2017. Building sustainability rating systems in the Middle East. *Proceedings of the Institution of Civil Engineers: Engineering Sustainability* 170 (6): 283–293.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Building%20sustainability%20rating%20systems%20in%20the%20Middle%20East&journal=Proceedings%20of%20the%20Institution%20of%20Civil%20Engineers%3A%20Engineering%20Sustainability&volume=170&issue=6&pages=283-293&publication_year=2017&author=Shareef%2CSL&author=Altan%2CH)

* Sharifi, A. 2013. *Sustainability at the neighborhood level: Assessment tools and the pursuit of sustainability*. Nagoya: Nagoya University.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Sustainability%20at%20the%20neighborhood%20level%3A%20Assessment%20tools%20and%20the%20pursuit%20of%20sustainability&publication_year=2013&author=Sharifi%2CA)

* Shen, L., J.J. Ochoa, M.N. Shah, and X. Zhang. 2011. The application of urban sustainability indicators—A comparison between various practices. *Habitat International* 35 (1): 17–29.

[**Article**](https://doi.org/10.1016%2Fj.habitatint.2010.03.006)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=The%20application%20of%20urban%20sustainability%20indicators%E2%80%94A%20comparison%20between%20various%20practices&journal=Habitat%20International&doi=10.1016%2Fj.habitatint.2010.03.006&volume=35&issue=1&pages=17-29&publication_year=2011&author=Shen%2CL&author=Ochoa%2CJJ&author=Shah%2CMN&author=Zhang%2CX)

* SPUR Urban Center. 2015. A downtown for everyone shaping the future of downtown Oakland. <https://www.spur.org/sites/default/files/2015-09/SPUR_A_Downtown_for_Everyone_print.pdf>.
* Sullivan, L., and Y. Rydin. 2014. Neighbourhood sustainability frameworks - A literature review frameworks for assessing the sustainability of the built environment with a focus at the neighbourhood level, USAR Working Paper Series. <https://discovery.ucl.ac.uk/id/eprint/1428696/1/001_USAR_WPS_SULLIVAN_DRAFT_LS_2014-05-07_FINAL2.pdf>.
* The Scottish Government. 2015. Town centre toolkit. <https://www.scotlandstowns.org/town_centre_toolkit>.
* Tompkins, T. 2017. The Value of U.S. downtowns and center cities. <https://www.mplsdowntown.com/wp-content/uploads/2019/02/IDA-VODT_Minneapolis_Final1.pdf>.
* UN-Habitat. 2009. Planning sustainable cities: Global report on human settlements 2009. UN-Habitat. <https://unhabitat.org/sites/default/files/download-manager-files/GlobalReportonHumanSettlements2009PlanningSustainableCities.pdf>.
* UN-Habitat. 2016. From habitat ii to habitat III: Twenty years of urban development. <https://doi.org/10.18356/bc5ec3da-en>.
* UN-Jordan. 2017. The United Nations country team common country assessment of the Hashemite Kingdom of Jordan. <http://jo.one.un.org/uploaded/publications_book/1508663169.pdf>.
* United Nations. 1992. United Nations conference on environment & development Rio de Janerio , Brazil , 3 to 14 June 1992 AGENDA 21’, in Reproduction. United Nations, 351. <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>.
* United Nations. 2018. Transforming our world: The 2030 agenda for sustainable development. *A New Era in Global Health*. <https://doi.org/10.1891/9780826190123.ap02>.

[**Article**](https://doi.org/10.1891%2F9780826190123.ap02)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Transforming%20our%20world%3A%20The%202030%20agenda%20for%20sustainable%20development&journal=A%20New%20Era%20in%20Global%20Health&doi=10.1891%2F9780826190123.ap02&publication_year=2018)

* United Nations. 2019. World Population Prospects 2019., United Nations. Department of Economic and Social Affairs. World Population Prospects 2019. <http://www.ncbi.nlm.nih.gov/pubmed/12283219>.
* Uwasu, M., and H. Yabar. 2011. Assessment of sustainable development based on the capital approach. *Ecological Indicators* 11 (2): 348–352.

[**Article**](https://doi.org/10.1016%2Fj.ecolind.2010.06.002)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Assessment%20of%20sustainable%20development%20based%20on%20the%20capital%20approach&journal=Ecological%20Indicators&doi=10.1016%2Fj.ecolind.2010.06.002&volume=11&issue=2&pages=348-352&publication_year=2011&author=Uwasu%2CM&author=Yabar%2CH)

* Veeravigrom, M. 2015. *An international framework for sustainable roadway rating systems*. Seattle: University of Washington.

[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=An%20international%20framework%20for%20sustainable%20roadway%20rating%20systems&publication_year=2015&author=Veeravigrom%2CM)

* Wallhagen, M., M. Glaumann, O. Eriksson, and U. Westerberg. 2013. Framework for detailed comparison of building environmental assessment tools. *Buildings* 3 (1): 39–60.

[**Article**](https://doi.org/10.3390%2Fbuildings3010039)[**Google Scholar**](http://scholar.google.com/scholar_lookup?&title=Framework%20for%20detailed%20comparison%20of%20building%20environmental%20assessment%20tools&journal=Buildings&doi=10.3390%2Fbuildings3010039&volume=3&issue=1&pages=39-60&publication_year=2013&author=Wallhagen%2CM&author=Glaumann%2CM&author=Eriksson%2CO&author=Westerberg%2CU)

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* **City centre**
* **Analytical Hierarchy Process (AHP)**
* **Delphi technique**