

**NAVIGATING THE ENVIRONMENT-ECONOMY DILEMMA IN DEVELOPPING COUNTRY: A  
COMPREHENSIVE CLIMATE FINANCE MECHANISMS FOR ENHANCING THE SUSTAINABILITY IN  
MANDALIKA SEZ**

**Tasdik Mahandito<sup>1\*</sup>, Zalfa Aura Tsabita<sup>2</sup>, and Hendra Prasetya Ardianto<sup>3</sup>**

<sup>1</sup>Department of Public Asset Management Diploma, PKN STAN, Indonesia

<sup>2,3</sup>Department of State Finance Management Diploma, PKN STAN, Indonesia

E-mail: 4111210025\_tasdik@pknstan.ac.id

**ABSTRACT**

This study investigates the challenges faced by developing countries amid the current climate and energy crises, balanced against the imperative for economic growth. Utilizing qualitative methods, the research analyzes secondary literature from scholarly articles and policy documents, and conducts content analysis of various reports concerning the Mandalika Special Economic Zone (SEZ), chosen for its ecotourism-oriented design. Findings indicate that Mandalika SEZ meets the criteria for climate financing; however, significant issues such as funding shortages and trust deficits were identified. This study proposes a novel climate finance scheme promoting collaboration among stakeholders, including BPD LH, PLN, ITDC, SMI, DJP, philanthropic organizations, and international institutions. The scheme aims to collect and manage climate finance through green bonds, CSR funds, taxes, and grants. The proposal features Rinonce EcoVenture, a smart application, required by potential funders and other stakeholders to assist in monitoring and controlling the project and the associated funds. The study concludes that a robust climate finance scheme, supported by the smart application, can significantly enhance the project success and promote sustainable development, providing solution to the dilemma faced by developing countries.

**Keywords:** Climate Finance, Smart Technology, Sustainable Development, Mandalika SEZ

**REFERENCES**

Agustinus, M., & Ananda, F. R. (2022, April 9). Realisasi 36,82 Persen, Biaya Pembangunan KEK Mandalika Capai Rp 623,6 Miliar. kumparan. Retrieved December 19, 2023, from <https://kumparan.com/kumparanbisnis/realisasi-36-82-persen-biaya-pembangunan-kek-mandalika-capai-rp-623-6-miliar-1xqfA1CyeQU>

- AIIB. (2018). Project Document of the Asian Infrastructure Investment Bank and The Republic of Indonesia: Mandalika Urban and Tourism Infrastructure Project. <https://www.aiib.org/en/projects/approved/2018/download/indonesia-mandalika/mandalika-project.pdf>
- Alniacik, U., Alniacik, E., & Genc, N. (2010). How corporate social responsibility information influences stakeholders' intentions. *Corporate Social Responsibility and Environmental Management*, 18(4), 234–245. Wiley. <https://doi.org/10.1002/csr.245>
- Arif, A. (2023, November 21). When the Earth first felt 2 degrees Celsius hotter. Kompas.id; Kompas. <https://www.kompas.id/baca/english/2023/11/21/en-ketika-bumi-untuk-pertama-kali-merasakan-dua-derajat-celcius-lebih-panas>
- Atsani, M. P., & Murwendah, M. (2019). The Implementation of Earmarking Tax Policy on Cigarette Tax in West Java Province. *Jurnal Ilmu Sosial Dan Ilmu Politik*, 23(1), 45. <https://doi.org/10.22146/jsp.41485>
- Bappenas. (2023, December 7). Di COP 28, Bappenas Paparkan Strategi Wujudkan Transformasi Ekonomi Hijau dan PRK | Kementerian PPN. Bappenas. Retrieved December 31, 2023, from <https://www.bappenas.go.id/berita/di-cop-28-bappenas-paparkan-strategi-wujudkan-transformasi-ekonomi-hijau-dan-prk-ylljU>
- Bhattacharya, A., Kharas, H., & McArthur, J. (2022). Introduction: The Role of Developing Countries in Driving Global Success and Local Prosperity. In *KEYS TO CLIMATE ACTION: HOW DEVELOPING COUNTRIES COULD DRIVE GLOBAL SUCCESS AND LOCAL PROSPERITY* (pp. 1–40). The Brookings Institution. <https://www.brookings.edu/wp-content/uploads/2023/02/Chapter-1.-Keys-to-Climate-Action-Overview.pdf>
- Blyth, W., & Baron, R. (2003). GREEN INVESTMENT SCHEMES: OPTIONS AND ISSUES. OECD. <https://www.oecd.org/environment/cc/19842798.pdf>
- Estriani, H. N. (2019). Kawasan Ekonomi Khusus (KEK) Mandalika Dalam Implementasi Konsep Pariwisata Berbasis Ecotourism: Peluang dan Tantangan. *Mandala*, 2(1), 64-79.
- Gautama, B., Mahandito, T., & Salsabila, D. (2023). AKUNTANSI BERKELANJUTAN PADA UMKM: PEMAHAMAN ATAS LAPORAN KEBERLANJUTAN. *Jurnal Riset Akuntansi Aksioma*, 22(2), 256–269. <https://doi.org/10.29303/aksioma.v22i2.244>
- Global Green Growth Institute. (2021). Closing the Climate Financing Gap: Stocktaking of GGGI Green Investment Projects. [https://ggi.org/wp-content/uploads/2021/09/GGGI-Technical-Report-20\\_Closing-the-Climate-Financing-Gap\\_Final\\_20210914.pdf](https://ggi.org/wp-content/uploads/2021/09/GGGI-Technical-Report-20_Closing-the-Climate-Financing-Gap_Final_20210914.pdf)
- Haryanto, J. T. (2023, November 16). APBN Peduli Bumi dan Peduli Ekonomi [Interview]. In Resha Aditya Pratama. <https://mediakeuangan.kemenkeu.go.id/article/show/apbn-peduli-bumi-dan-peduli-ekonomi>
- Hill, J., & Gale, T. (Eds.). (2009). *Ecotourism and environmental sustainability: principles and practice*. Farnham, England ; Burlington, VT: Ashgate.

- IRENA. (2019). *Global energy transformation: A roadmap to 2050*. International Renewable Energy Agency. <https://www.irena.org/apps/DigitalArticles/-/media/652AE07BBAAC407ABD1D45F6BBA8494B.ashx>
- Jafino, B., Walsh, B., Rozenberg, J., & Hallegatte, S. (2020). *Policy Research Working Paper 9417 Climate Change Group & Global Facility for Disaster Reduction and Recovery Revised Estimates of the Impact of Climate Change on Extreme Poverty by 2030 Poverty and Shared Prosperity 2020 Background Paper*. World Bank. <https://openknowledge.worldbank.org/server/api/core/bitstreams/ad7eeab7-d3d8-567d-b804-59d620c3ab37/content>
- Jobst, A. A., & Pazarbasioglu, C. (2019). Greater Transparency and Better Policy for Climate Finance. *SSRN Electronic Journal*, 23. <https://doi.org/10.2139/ssrn.3406973>
- Jong, H. N. (2023, June 14). *Indonesia's Mandalika megaproject still trampling on Indigenous community's rights: Report*. Mongabay Environmental News; Mongabay. <https://news.mongabay.com/2023/06/indonesias-mandalika-megaproject-still-trampling-on-indigenous-communitys-rights-report/>
- Lawal, I. M. (2019). Impact of population growth on Carbon Dioxide (CO<sub>2</sub>) emission: empirical evidence from Nigeria. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 6(6), 701–708. <https://doi.org/10.22437/ppd.v6i6.6730>
- Long, S., Lucey, B., Kumar, S., Zhang, D., & Zhang, Z. (2023). Climate finance: What we know and what we should know? *Journal of Climate Finance*, 1, 100005. Science Direct. <https://doi.org/10.1016/j.jclimf.2023.100005>
- Masson-Delmotte, V., Zhai, P., Pörtner, H.-O., Roberts, D., Skea, J., Calvo, E., Priyadarshi, B., Shukla, R., Ferrat, M., Haughey, E., Luz, S., Neogi, S., Pathak, M., Petzold, J., Pereira, J., Vyas, P., Huntley, E., Kissick, K., Belkacemi, M., & Malley, J. (2019). *Climate Change and Land: An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/site/assets/uploads/2019/11/SRCCL-Full-Report-Compiled-191128.pdf>
- Maulana. (2023, August 15). Pembiayaan KEK Mandalika Tidak Akuntabel: Rekomendasi Organisasi Masyarakat Sipil untuk Akuntabilitas – INFID. INFID. Retrieved December 31, 2023, from <https://infid.org/pembiayaan-kek-mandalika-tidak-akuntabel-rekomendasi-organisasi-masyarakat-sipil-untuk-akuntabilitas/>
- Media Indonesia. (2023, August 15). INFID dan Green Network Asia: Pembangunan KEK Mandalika Belum Akuntabel. Media Indonesia. Retrieved December 31, 2023, from <https://mediaindonesia.com/ekonomi/605136/infid-dan-green-network-asiapembangunan-kek-mandalika-belum-akuntabel>
- Natalina, S. A. (2022). Konsep Pengungkapan Corporate Social Responsibility Dan Kinerja Perusahaan di Indonesia dan Negara Berkembang Di Benua Asia. *Proceedings of Islamic Economics, Business, and Philanthropy*, 1(1), 212–227. <https://jurnalfebi.iainkediri.ac.id/index.php/proceedings/article/view/232>

Pahlevi, R. (2022). Cadangan Minyak Indonesia Terus Menipis dalam 10 Tahun Terakhir | Databoks. In databoks.katadata.co.id. KataData. <https://databoks.katadata.co.id/datapublish/2022/07/22/cadangan-minyak-indonesia-terus-menipis-dalam-10-tahun-terakhir>

Pemerintah Republik Indonesia. Undang-Undang Nomor 39 Tahun 2009 tentang Kawasan

Ekonomi Khusus, (2009). [https://kek.go.id/assets/images/pagefile/UU-No-39-Tahun-2009\\_20170629001730.pdf](https://kek.go.id/assets/images/pagefile/UU-No-39-Tahun-2009_20170629001730.pdf)

Peraturan Pemerintah Nomor 2 Tahun 2011 Tentang Penyelenggaraan Kawasan Ekonomi

Khusus. (N.D.). Jdih Kementerian Keuangan. Retrieved December 31, 2023, dari <https://jdih.kemenkeu.go.id/Fulltext/2011/2tahun2011pp.Htm>

Peraturan Pemerintah Nomor 52 Tahun 2014 tentang Kawasan Ekonomi Khusus Mandalika, Database Peraturan | JDIH BPK (2014). <https://peraturan.bpk.go.id/Details/5491/pp-no-52-tahun-2014>

Peraturan Pemerintah Nomor 46 tahun 2017 tentang Instrument Ekonomi Lingkungan Hidup, (2017). <https://peraturan.bpk.go.id/Details/64701>

Peraturan Pemerintah Nomor 64 Tahun 2020 tentang Penambahan Penyertaan Modal Negara Republik Indonesia ke Dalam Modal Saham Perusahaan Perseroan (Persero) PT Pengembangan Pariwisata Indonesia, Database Peraturan | JDIH BPK (2020). <https://peraturan.bpk.go.id/Details/151692/pp-no-64-tahun-2020>

Peraturan Presiden Nomor 3 Tahun 2015 tentang Proyek Strategis Nasional., (2016). [https://jdih.esdm.go.id/peraturan/Perpres%203%20Tahun%202016\\_PSN.pdf](https://jdih.esdm.go.id/peraturan/Perpres%203%20Tahun%202016_PSN.pdf)

Peraturan Presiden Nomor 112 Tahun 2022 tentang Percepatan Pengembangan Energi Terbarukan untuk Penyediaan Tenaga Listrik, Database Peraturan | JDIH BPK (2022). <https://peraturan.bpk.go.id/Details/225308/perpres-no-112-tahun-2022>

Peraturan Menteri Keuangan Republik Indonesia Nomor 124/Pmk.05/2020 Tentang Tata Cara Pengelolaan Dana Lingkungan Hidup, (2019). <https://jdih.kemenkeu.go.id/download/8f2410c5-8e3a-4d1d-83db-eff5fdb358f8/124~PMK.05~2020Per.pdf>

Rachman, A. (2023, November 27). Dilema Sri Mulyani, antara RI Jadi Negara Maju & Tekan Emisi. CNBC Indonesia; CNBC Indonesia. <https://www.cnbcindonesia.com/news/20231127133018-4-492334/dilema-sri-mulyani-antara-ri-jadi-negara-maju-tekan-emisi>

Ross, S., & Wall, G. (1999). Ecotourism: towards congruence between theory and practice. *Tourism Management*, 20(1), 123–132. Science Direct. [https://doi.org/10.1016/s0261-5177\(98\)00098-3](https://doi.org/10.1016/s0261-5177(98)00098-3)

Sarana Multi Infrastruktur. (2023a, March 3). 14 Tahun PT SMI Berkarya. [ptsmi.co.id](https://ptsmi.co.id/14-tahun-berkarya-pt-smi-siap-hadapi-tantangan-ekonomi-dalam-membangun-indonesia-berkelanjutan). <https://ptsmi.co.id/14-tahun-berkarya-pt-smi-siap-hadapi-tantangan-ekonomi-dalam-membangun-indonesia-berkelanjutan>

- Sarana Multi Infrastruktur. (2023b). Green Bond Report 2023. <https://ptsmi.co.id/cfind/source/files/green-bonds-report/green-bond-report-pt-smi-2023.pdf>
- Sattar, U. (2022). A Conceptual Framework of Climate Action Needs of the Least Developed Party Countries of the Paris Agreement. *International Journal of Environmental Research and Public Health*, 19(16), 9941. <https://doi.org/10.3390/ijerph19169941>
- Tosun, J. (2022). Addressing climate change through climate action. *Climate Action*, 1(1). <https://doi.org/10.1007/s44168-022-00003-8>
- Toteja, N., Gandhi, A. P., Satapathy, P., Rustagi, S., & Sah, R. (2023). Climate change and its impediments to global health security. *Health Science Reports*, 6(12). <https://doi.org/10.1002/hsr2.1764>
- Tseng, T.-Y. (2021). Influences of Taiwan's corporate social responsibility report management policy on the information transparency of its capital market. *Borsa Istanbul Review*, 22(3). Science Direct. <https://doi.org/10.1016/j.bir.2021.06.015>
- United Nations. (2023). *Synergy Solutions for a World in Crisis: Tackling Climate and SDG Action Together REPORT ON STRENGTHENING THE EVIDENCE BASE I FIRST EDITION 2023*. United Nations. <https://sdgs.un.org/sites/default/files/2023-09/UN%20Climate%20SDG%20Synergies%20Report-091223B.pdf>
- United Nations Framework Convention on Climate Change. (2015). The Paris Agreement. United Nations Climate Change; United Nations. <https://unfccc.int/process-and-meetings/the-paris-agreement>
- Warren, P., Frazer, M., & Greenwood, N. (2023). Role of climate finance beyond renewables: hard-to-abate sectors. *Energy Reports*, 10, 3519–3531. Science Direct. <https://doi.org/10.1016/j.egy.2023.10.021>
- Xie, L., Scholtens, B., & Homroy, S. (2023). Rebalancing climate finance: Analysing multilateral development banks' allocation practices. *Energy Research & Social Science*, 101, 103127–103127. Science Direct. <https://doi.org/10.1016/j.erss.2023.103127>