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Analysis of the Development of the Village Development Index (IDM) Status in Coastal Villages in Kuala Kampar District, 2021–2024

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ABSTRACT

This study aims to analyze the development of the Village Development Index in coastal villages in Kuala Kampar District during the period 2021–2024. This study uses a quantitative descriptive method with a time series approach to observe trends in IDM value changes and the contribution of each dimension, namely social resilience, economic resilience, and environmental resilience. The data used is secondary data obtained from the official website of the Ministry of Villages, Disadvantaged Regions, and Transmigration. The results of the study show a significant increase in collective status, where six of the nine villages successfully transitioned from "Advanced" to "Independent" status during the observation period. The most striking change occurred in 2023, along with a sharp increase in the average IDM score. Of the three dimensions, environmental resilience recorded the highest index value, while economic resilience experienced the most dynamic increase, becoming the main driver of village status change. These findings indicate that economic diversification and good environmental management play an important role in accelerating coastal village development.

Keywords: Coastal Villages, IDM, Economic Resilience, Environmental Resilience, Social Resilience, Village Development

I. INTODUCTION

A village (Desa) is the smallest governmental unit in Indonesia that holds great potential in promoting sustainable development. Through Law Number 6 of 2014 concerning Villages, it is emphasized that villages have the authority to plan, implement, and empower their communities independently (Kurniawati et al., 2025). To improve the welfare of rural communities, the Indonesian government implements various programs and policies focused on empowerment and acceleration of village development.

One important initiative is the Village Development Index (IDM), which is used as an instrument to assess the development level and potential of villages across Indonesia (Syahdan et al., 2024). Developed by the Ministry of Villages, Disadvantaged Regions, and Transmigration (Kemendes PDTT), IDM consists of three main dimensions: the Social Resilience Index (IKS), the Economic Resilience Index (IKE), and the Environmental Resilience Index (IKL). This instrument classifies villages into five statuses: Very Disadvantaged (Sangat Tertinggal), Disadvantaged (Tertinggal),

Developing (Berkembang), Advanced (Maju), and Independent (Mandiri) (Muhtarom et al., 2018).

Village Status	IDM Score Range
Very Disadvantaged Village	< 0,491
Disadvantaged Village	> 0,491 dan < 0,599
Developing Village	> 0,599 dan < 0,707
Advanced Village	> 0,707 dan <0,815
Independent Village	> 0,815

Source: Kemendes PDTT

Villages are not always identical to inland/mainland areas; there are also **coastal villages** which are in the transitional zone between land and sea (Yistiarani, 2020). Coastal areas have unique and dynamic characteristics, making them geographically more vulnerable to climate change, natural disasters, and limitations in accessibility and livelihood resources (Pratama et al., 2025). Therefore, the development of the IDM status in coastal areas reflects the extent to which village development can address the challenges faced by coastal communities.

Kuala Kampar District is a coastal area in Pelalawan Regency, Riau Province. This area is bordered directly by Malaysia, Bengkalis Regency, and the Riau Islands Province (Ahmad et al., 2016). All administrative areas in this district are generally coastal villages with distinct social and economic characteristics of a coastal region. Thus, this research focuses on all villages in Kuala Kampar District that are classified as coastal villages. However, one area, Teluk Dalam Urban Village (Kelurahan), was excluded because its administrative status is a *kelurahan*, not a *desa* (village), which is the focus of this study.

Table 2. Development of the IDM Status of Coastal Villages in Kuala Kampar District (2021-2024)

Village	IDM Status 2021	IDM Status 2022	IDM Status 2023	IDM Status 2024
Serapung	Advanced	Advanced	Independent	Independent
Sokoi	Developing	Developing	Advanced	Advanced
Sungai Mas	Advanced	Advanced	Independent	Independent
Sungai Solok	Developing	Advanced	Advanced	Advanced
Sungai Upih	Advanced	Advanced	Independent	Independent
Tanjung Sum	Advanced	Advanced	Independent	Independent
Teluk	Advanced	Advanced	Advanced	Independent
Teluk Beringin	Advanced	Advanced	Advanced	Advanced
Teluk Bakau	Advanced	Advanced	Independent	Independent

Source: Village Development Index (IDM)

The data in Table 2 indicates a significant collective status increase in the 2021 to 2024 period, where six out of nine villages transitioned from the advanced category to independent. This phenomenon reflects the dynamics of coastal village development that is important to study quantitatively.

This research aims to describe and analyze the development trend of the IDM status and value of coastal villages in Kuala Kampar District in the 2021-2024 period, as well as to identify which Resilience Index dimension (social, economic, or environmental) contributes the most to this status change. The findings are expected to serve as a basis for consideration in formulating village development policies that are more targeted and responsive to the needs of coastal areas.

II. LITERATURE REVIEW

Village Development

Rural and village areas hold various potentials, especially in the form of natural resources that can be an important asset for economic improvement if managed well. Development efforts in rural areas have long been carried out through diverse policies and programs designed to optimize the utilization of this potential, with the main goal of increasing the welfare of the village community (Diartika & Pramono, 2021). Village development is viewed as a multidimensional phenomenon, encompassing aspects of power, resource management, accountability, priority setting, and policy choices. It is essentially a process directed at optimizing the village's resources, both natural and human, to achieve sustainable community self-reliance and welfare.

Coastal Village Development

Coastal villages have a highly complex and unique social-ecological character, differing from mainland villages. This uniqueness includes high dependence on marine resources, vulnerability to climate change and natural disasters (such as abrasion and tidal flooding), and economic dynamics influenced by fishing seasons and fluctuations in the price of marine products. Therefore, the development framework in coastal areas must be based on the principle of sustainable development, integrating economic, social, and environmental aspects.

Diversification of livelihoods: Developing alternative businesses like seaweed cultivation, brackish water fisheries, ecotourism, or marine product processing can reduce pressure on marine resources and increase family income. Management of the marine and coastal environment: This is the main pillar for improving the Environmental Resilience Index (IKL) in coastal areas. IKL includes the condition of the mangrove ecosystem, marine water quality, frequency of abrasion, and community readiness for natural disasters (Anwar et al., 2022).

Improvement of accessibility and basic infrastructure: Adequate infrastructure is a key factor to improve community welfare and strengthen the village's resilience to environmental disasters. Infrastructure development has a positive relationship with the

IDM components, including the Economic Resilience Index (IKE) and IKL, as it expands market access, strengthens population mobility, and supports effective conservation efforts (Akbar et al., 2024).

The Concept of IDM (IKS, IKE, IKL)

The Ministry of Villages, Disadvantaged Regions, and Transmigration (PDTT) introduced the Village Development Index (IDM) in October 2016, which serves as a benchmark for reducing the number of disadvantaged villages and increasing the number of independent villages in Indonesia. IDM uses an approach that focuses on social, economic, and ecological strengths, while also considering political, cultural, historical, and local wisdom aspects (Ety. & Nurhayati, 2025). IDM is the combined instrument used to assess the progress and self-reliance level of villages in Indonesia, consisting of three main sub-indices: Social Resilience Index (IKS), Economic Resilience Index (IKE), and Ecological/Environmental Resilience Index (IKL).

Social Resilience Index (IKS) Measures the community's ability to face social pressures, maintain basic social functions, and preserve social capital. IKS typically covers aspects like health, education, settlement and access to basic services, and social capital (Nomaini, 2019). Economic Resilience Index (IKE) Describes the village's capacity to provide economic opportunities, create jobs, and maintain the sustainability of community economic activities. IKE measures how strongly a village can withstand economic pressures arising from price fluctuations, global crises, or changes in consumption patterns (Nisa et al., 2024).

Environmental Resilience Index (IKL) Measures the village community's ability to maintain, manage, and restore environmental conditions. IKL assesses not only physical environmental aspects but also institutional and social capacity in disaster mitigation and adaptation, waste management, resource conservation, and local policies that support sustainable development (Yani et al., 2023).

III. RESEARCH METHODOLOGY

This research utilizes a quantitative descriptive method with a time series approach (periodic data) to analyze the development of the Village Development Index (IDM) in coastal villages in Kuala Kampar District during the 2021–2024 period. Data Source Pure secondary data obtained from the official publication of the Ministry of Villages, Disadvantaged Regions, and Transmigration (Kemendesa PDTT) through the official IDM website. The data includes the IDM values and status, as well as its three sub-indices (IKS, IKE, and IKL). Population and Sample The population includes all nine coastal villages in Kuala Kampar District: Serapung, Sokoi, Sungai Mas, Sungai Solok, Sungai Upih, Tanjung Sum, Teluk, Teluk Beringin, and Teluk Bakau. As the entire population was analyzed, the study used a census technique Data Analysis Data was collected through documentation (retrieving IDM data from the official source) and analyzed quantitatively descriptively through three main stages:Analysis of the IDM

status change trend. Analysis of the growth rate of the sub-indices (IKS, IKE, IKL). Analysis of the development patterns of IKS, IKE, IKL, and IDM

IV. RESULT AND DISCUSSION

The descriptive analysis results show a significant upward trend in the IDM status of the nine villages in Kuala Kampar District during the 2021–2024 period.2021 Seven villages were in the Advanced category, two were in the Developing category, and none were Independent.2024: Six villages successfully reached the Independent (Mandiri) status. Transitional Villages: Serapung, Sungai Mas, Sungai Upih, Tanjung Sum, Teluk, and Teluk Bakau transitioned from Advanced to Independent. Sokoi and Sungai Solok moved from Developing to Advanced. Teluk Beringin consistently maintained the Advanced status for four years. The most significant surge in village status transition occurred in 2023, when five villages successfully moved from Advanced to Independent simultaneously. The Teluk Village followed in 2024.

Chart1.VillageStatusin Kuala Kampar Subdistrict, 2021-2024 Source: Village Development Index Website (processed**)**

These changes can be seen more clearly in Graph 1, which illustrates the dynamics of the development of village IDM status each year. The most significant surge in village status transitions occurred in 2023, when five villages successfully upgraded their status simultaneously from Advanced to Independent. In 2024, there was one village that experienced a status upgrade to Independent, while the other villages had already reached Independent status in 2023. Teluk Village followed in 2024. Meanwhile, the other two villages showed a gradual improvement pattern, moving from Developing to Advanced, and one village remained stable at the same status. This indicates that most villages experienced a status change after two to three years, suggesting an ongoing development process.

IDM Average Score Trends for 2021-2024 In addition to status improvements, the IDM score trends also show significant *developments* from year to year. In 2021, the average IDM score of the nine villages in Kuala Kampar District was recorded at 0.7405. This

figure remained relatively stable in 2022 *with* a score of 0.7473, then rose sharply in 2023 to 0.7952, and continued to increase in 2024 to 0.7966. The surge in 2023 became an important momentum that encouraged many villages to transition from the Advanced to the Independent category.

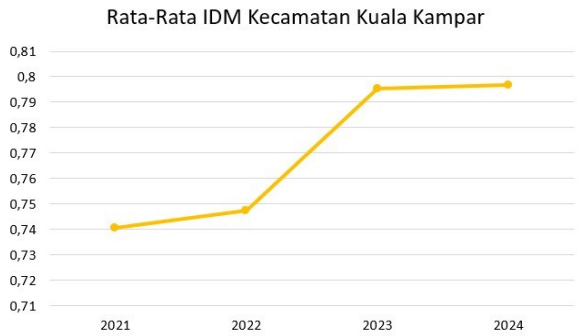

Chart 2. Average IDM in Kuala Kampar Subdistrict, 2021-2024 Source: Village Development Index Website (processed)

The surge in the IDM score in 2023 aligns with the findings of Kafabih & Utami (2024), which explain that changes in village status based on IDM variables reflect improvements and more equitable development in villages. Pattern of IKS, IKE, and IKL Development Among the three components of IDM calculation, namely the Social Resilience Index (IKS), Economic Resilience Index (IKE), and Environmental Resilience Index (IKL), there are observable patterns of change in each indicator. Each component shows different development dynamics, but overall they move toward an increase, reflecting the strengthening of village capacity across various development aspects.

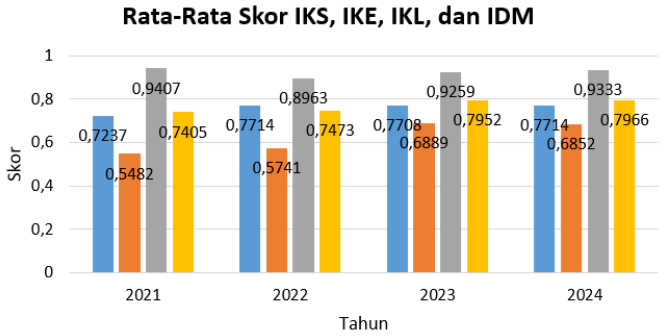

Chart 3. Average Scores of IKS, IKE, IKL, and IDM in Kuala Kampar District, 2021-2024 Source: Village Development Index Website (processed) Over a period of 4 years, the Social Resilience Index (SRI) tended to remain stable with a gradual increase from 0.7237 in 2021 to 0.7714 in 2024. This stability reflects the strengthening of basic services such as education, health, and sustainable social institutions (Kurniawati et al., 2025). On the

other hand, the Economic Resilience Index (ERI) experienced a more dynamic increase. From 0.5482 in 2021, the ERI jumped to 0.6889 in 2023 before slightly decreasing to 0.6852 in 2024. The dynamic pattern of the ERI reflects progress in aspects of community production diversity as well as access to trade and finance (Kurniawati et al., 2025). Meanwhile, the Environmental Resilience Index (EnRI) has been at a high level from the beginning, at 0.9407 in 2021 and 0.9333 in 2024, and is the highest index compared to the ERI and SRI. The high value of the EnRI indicates the effectiveness of the use of village funds in enhancing environmental resilience at the village level (Hariwibowo & Wardhana, 2023).

REFERENCES

Ahmad, M., Ediwarman, E., & Darus, D. (2016). Kajian Pengenalan Kawasan Pulau Mendol Sebagai Wilayah Binaan Universitas Islam Riau. *Buletin Pembangunan Berkelanjutan*, *1*(3), 7–17. https://doi.org/10.25299/bpb.2021.4865

Akbar, F. S. A., Dirgantari, N., Wahyuni, S., & Wibowo, H. (2024). Faktor Determinan Indeks Desa Membangun. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, *8*(3), 2793–2816. https://doi.org/10.31955/mea.v8i3.4821

Anwar, Y. A., Muhammad Farhan Maulana, Edwardus Iwantri Goma, Iya'Setyasih, Mislan, & Yunus Aris Wibowo. (2022). Ketahanan Masyarakat Desa Melintang Terhadap Bencana Banjir Danau Melintang. *Jurnal Pendidikan Geografi Undiksha*, *10*(2), 209–223. https://doi.org/10.23887/jjpg.v10i2.48431

Bustomy, M., & Bakhtiar, A. (2025). Forecasting Permintaan Produk Keripik Sayur Mix di PT. IPL Menggunakan Metode Time Series. *Mimbar Agribisnis : Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, *11*(2), 2995. https://doi.org/10.25157/ma.v11i2.18671

Diartika, F., & Pramono, R. W. D. (2021). Program Pembangunan Kawasan Perdesaan: Strategi Pengembangan Desa Berbasis Keterkaitan Desa-Kota. *Jurnal Pembangunan Wilayah Dan Kota*, *17*(4), 372–384. https://doi.org/10.14710/pwk.v17i4.34503

Ety., K., & Nurhayati, I. (2025). *Jurnal Humanitas Analisis Kuantitatif Pembangunan Desa Berbasis Lingkungan*.

Hariwibowo, I. N., & Wardhana, D. Y. (2023). Peran Dana Desa Dalam Peningkatan Ketahanan Lingkungan di Provinsi Daerah Istimewa Yogyakarta. *Prosiding SENAPAS*, *1*(1), 140–146. https://ojs.uajy.ac.id/index.php/SENAPAS/article/view/7359

Indriani, A. F., & Publik, A. (2025). *Implementasi Kebijakan Indeks Desa Membangun (Idm)*

Di Dinas Pemberdayaan Masyarakat Dan Desa Kabupaten Sumedang. *10*(1), 40–48.

Kafabih, A., & Utami, D. W. (2024). Implikasi Dana Desa Terhadap Pembangunan dan Kualitas Hidup Masyarakat Desa. *Journal of Indonesian Rural and Regional Government*, *8*(2), 128–139.

Kurniawati, E., Ibrahim, & Nurhayati. (2025). Analisis Kuantitatif Pembangunan Desa Berbasis Lingkungan Terhadap Indeks Desa Membangun di Kabupaten Lombok Barat. *Jurnal Humanitas*, *11*(2), 279–295.

Lisnawati, & Lestari, S. (2019). Analisis Faktor Pembangunan Desa dalam Pengembangan Desa Mandiri Berkelanjutan pada Desa Bunghu Aceh Besar. *Jurnal Ilmu Administrasi Publik (JIAP)*, *4*(2), 157–167.

Muhtarom, Kusuma, N., & Purwanti, E. (2018). Analisis Indeks Desa Membangun untuk Mengetahui Pola Perkembangan Pembangunan Desa di Kecamatan Gadingrejo Kabupaten Pringsewu. *Inovasi Pembangunan : Jurnal Kelitbangan*, *06*(02), 179–190. https://doi.org/10.35450/jip.v6i02.96

Nisa, N. A., Rifai, A., & Kurnia, D. (2024). Analisis Karakteristik Ekonomi Desa di Wilayah Daratan Provinsi Riau Menurut Indeks Desa Membangun (IDM) Tahun 2022. *Mimbar Agribisnis : Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, *10*(2), 3686. https://doi.org/10.25157/ma.v10i2.15094

Nomaini, F. (2019). Evaluasi Indeks Ketahanan Sosial Sebagai Bagian Dari Penerapan Program Indeks Desa Membangun di Kabupaten Ogan Ilir. *Jurnal Empirika*, *4*(1), 19–32. https://doi.org/10.47753/je.v4i1.71

Pratama, J. P., Rohmansyah, R., Puntodewo, L., & Rahman, F. A. (2025). Ketahanan Masyarakat Pesisir terhadap Dampak Perubahan Iklim (Studi Kasus Nelayan dan Pelaku Usaha di Kecamatan Paku Haji). *Journal of Management and Social Sciences*, *4*(1), 20–36.

Rizkwanti, R. A. K. D., & Kurniawan, A. R. (2025). Integrated Rural Development: Sebuah Tinjauan Literatur Sistematis di Indonesia. *Jurnal Ilmiah Administrasi Publik (JIAP)*, *11*(1), 1–12.

Sari, N., & Oktavianor, T. (2021). Indeks Desa Membangun (Idm) Di Kabupaten Barito Kuala. *Jurnal Administrasi Publik Dan Pembangunan*, *2*(1), 36. https://doi.org/10.20527/jpp.v2i1.2768

Syahdan, G. A., Rudiyanto, Ahnof, F. El, & Agustin, H. (2024). Sistem Informasi IDM (Indeks Desa Membangun) Berbasis Web di Dinas Pemberdayaan Masyarakat dan Desa (PMD) Kabupaten Pelalawan. *Jurnal Ekonomi KIAT*, *35*(2).

Yani, A., Restiatun, R., & Nuratika, N. (2023). Indeks Kualitas Lingkungan Hidup Dan

Determinannya: Studi Kasus Di Indonesia. *Jurnal Ekonomi Pembangunan*, *12*(3), 178–186. https://doi.org/10.23960/jep.v12i3.2132

Yistiarani, W. D. (2020). Kehidupan Masyarakat Pesisir di Indonesia. *BALAIRUNG: Jurnal Multidisipliner Mahasiswa Indonesia*, *2*(1), 6–12. https://jurnal.ugm.ac.id/balairung/article/view/64798