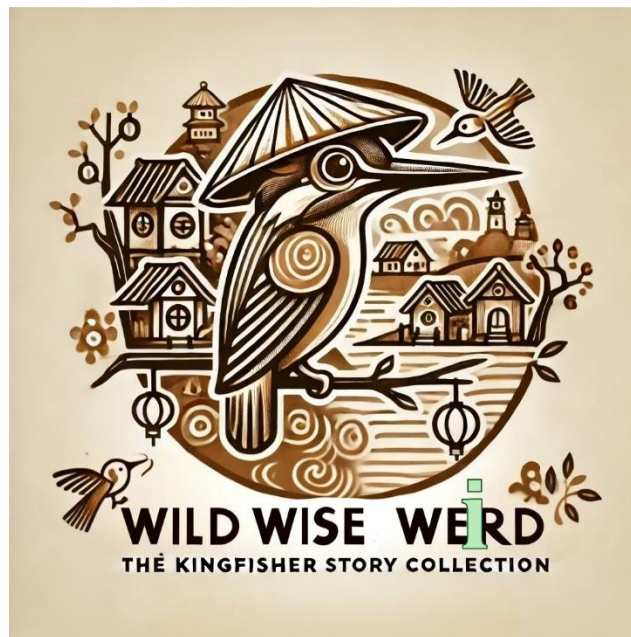


# How China's Sustainable Development Journey Reflects the Dance Between Economy and Environment

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“Lately, it had been raining a lot, the plants were lush, and the ponds were full of fish and shrimp. Birds from everywhere flocked to live here. The population of the Bird Village increased sharply.”

In “Kindness Policy”; *Wild Wise Weird* [1]



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In the era of the Sustainable Development Goals (SDGs), understanding the intricate relationship between economic growth and environmental sustainability has become more critical than ever. A recent study by Dang et al. [2] sheds light on this dynamic within China's urban context, revealing how socioeconomic development and environmental health evolve together—or diverge—through the course of sustainable progress.

Drawing on data from 290 Chinese municipalities, the researchers employed the Coupling Coordination Degree (CCD), a metric that quantifies the extent to which economic and environmental systems develop in harmony [3]. Their findings reveal a distinct non-linear trajectory: as cities advance along the SDG Index, the coordination between socioeconomic and environmental systems first strengthens, then declines, and eventually rises again. This trajectory delineates three developmental stages—initial synergy, a period of trade-offs, and a renewed phase of integration.

This U-shaped evolution mirrors the Environmental Kuznets Curve hypothesis [4], which proposes that environmental degradation tends to worsen during early economic growth but improves as economies mature and adopt cleaner technologies and stricter regulations. In the first stage, cities with low SDG scores—often dominated by agriculture—experience modest economic advancement alongside environmental stability. The second stage is marked by rapid industrialization, leading to increased pollution and a breakdown in coordination. In the third stage, cities transition toward service-based economies and implement stronger environmental governance, resulting in a rebound in the CCD.

Geographically, hotspots of coupling coordination are predominantly located in China's southeastern coastal regions, while inland areas generally demonstrate weaker alignment between socioeconomic development and environmental sustainability. These spatial disparities reflect underlying differences in industrial structure: early-stage cities are largely agriculture-based, mid-stage cities are characterized by industrial expansion, and advanced-stage cities increasingly rely on the service sector.

The study provides targeted policy recommendations for each stage of development. For early-stage municipalities, it emphasizes that economic growth should not come at the expense of environmental integrity. Instead, models such as China's "Liangshan Bank"—which facilitates the marketization of ecological products—illustrate how environmental protection can be aligned with income generation. In mid-stage cities, where environmental degradation often accompanies industrial growth, the implementation of stricter regulations, cleaner energy sources, and pollution mitigation strategies becomes essential to restoring coordination. For advanced cities, although the relationship between the economy and the environment shows signs of recovery, sustained efforts are still required. Embracing circular economy principles is crucial to reducing resource consumption, minimizing waste, and reinforcing long-term sustainability.

Sustainable development is not a straight path but a dynamic, evolving relationship between human advancement and ecological stewardship. As regions progress, their policies must adapt—ensuring that economic prosperity and environmental integrity move forward hand in hand rather than at odds [5].

## References

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