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Research on the Sustainable Development Path from the Dual Perspectives of Policy Regulation and Behavioral Intervention

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ABSTRACT

Global sustainable development is facing multiple challenges such as climate change, resource scarcity, and ecological degradation. Traditional governance models that rely solely on policy regulation or individual behavioral intervention are no longer effective in addressing such complex systemic problems. This article takes the collaborative mechanism of "policy rigidity constraint behavior flexibility guidance" as the analysis core, and comprehensively uses literature review, cross theoretical integration, and typical case analysis methods to systematically explore the practical path of sustainable development from a dual perspective. Research has shown that policy regulation needs to rely on legislative improvement, standard setting, and a combination of incentive and constraint tools to construct a sustainable development institutional framework, providing direction guidance and institutional guarantees for behavioral intervention; Behavioral intervention requires cognitive guidance, habit cultivation, and social mobilization to stimulate the participation of individuals, businesses, and social organizations, filling the "last mile" gap in policy implementation. The synergy between the two needs to focus on three dimensions: goal synergy, tool complementarity, and information exchange: policy formulation needs to fully align with the cognitive laws and interests of the actors, avoiding a disconnect between institutional design and practice; Behavioral intervention should be guided by policies to prevent a tendency towards decentralization and fragmentation. By analyzing typical cases such as the EU carbon trading system, China's "Ten Million Project", and Japan's community waste classification intervention, this article extracts a path model of "policy framework behavior details collaborative efficiency improvement", providing theoretical support and practical reference for global sustainable development practice.

KEYWORDS

Policy Regulation; Behavioral Intervention; Sustainable Development; Collaborative Pathways; Environmental Governance.

1. INTRODUCTION

Since the United Nations proposed the 2030 Agenda for Sustainable Development in 2015, the 17 Sustainable Development Goals (SDGs) have gradually become a global consensus, but there are significant bottlenecks in their practical implementation. According to the United Nations' 2025 Sustainable Development Goals Report, only 35% of the 169 SDGs have progressed smoothly, nearly half have made slow progress, and 18% have regressed. Climate action, responsible consumption, and other areas are particularly prominent. One of the core reasons for this dilemma is the deficiency of "unipolar dependence" in the traditional model - either overemphasizing government led policy regulation, resulting in a lack of social foundation for institutional implementation; Either relying solely on the conscious behavior of social entities and falling into the execution dilemma of "no coercive support". In existing research, the field of policy regulation mostly focuses on institutional design such as legislation and carbon tax, but pays less attention to the acceptance and response

mechanism of behavioral subjects to policies; The field of behavioral intervention often explores the influence of cognition and social norms on behavior from the perspectives of psychology and sociology, but neglects the constraining and supportive role of policy frameworks in guiding behavior. This type of "fragmented" research makes it difficult for policies and behaviors to work together, which constrains the efficiency of sustainable development.Restricting the efficiency of sustainable development. Kurian (2017) also pointed out in his research on the relationship between water, energy, and food that the systemic challenges of sustainable development require interdisciplinary approaches to solve. Analysis from a single field or perspective can easily overlook the trade-off between goals. This viewpoint not only confirms the limitations of "fragmented" research, but also provides theoretical support for interdisciplinary integration [1]. Based on this, this article takes a dual perspective and combines the "rigid guarantee" of policy regulation with the "flexible activation" of behavioral intervention, aiming to address the three core issues: how can policy regulation provide an institutional basis for behavioral intervention? How can behavioral intervention compensate for policy implementation deficiencies? How can the two work together to enhance the efficiency of sustainable development? Researching and integrating interdisciplinary theories such as public governance and planned behavior, combined with global practice cases, and sorting out relevant paths, not only enriches the theoretical system of sustainable development, but also provides reference for countries to formulate practical plans.

2. THE CORE CONNOTATION AND INTRINSIC CORRELATION BETWEEN POLICY REGULATION AND BEHAVIORAL INTERVENTION

In sustainable development governance, policy regulation and behavioral intervention are never isolated from each other, but rather like an indispensable "one body, two wings" - it is necessary to clarify their core direction and clarify their connection in order to establish a basic framework for their coordinated promotion.

2.1. Core Connotation of Policy Regulation

Policy regulation is an institutional arrangement in which the government or public sector uses legislation, administrative orders, and standard setting tools to constrain and guide the behavior of market entities in the public interest. In the field of sustainable development, its role is very clear: on the one hand, it is a "rigid bottom line", relying on the "Environmental Protection Law" and "Renewable Energy Law" to clarify the bottom line of ecological protection and resource utilization. For example, China's "dual carbon" goal of energy consumption control and the emission cap of the EU Emissions Trading System (EU ETS) are legally binding requirements that no one can easily break through; On the other hand, it is about "setting the general direction", such as the United Nations' Paris Agreement which sets "global temperature rise below 2 ℃" as the climate action framework, and countries should formulate their own rules according to this framework to avoid divergence. Moreover, policies cannot be blindly implemented and must be adjusted according to the needs of the actors involved, such as listening to the opinions of villagers in the "Ten Million Project" to focus on improving village appearance, in order to pave the way for subsequent behavioral interventions.

2.2. Core Connotation of Behavioral Intervention

Behavioral intervention does not require coercive measures, but rather guides individuals to actively do sustainable things by changing cognition, adjusting attitudes, and optimizing the environment, covering three levels: individuals, businesses, and communities. On a personal level, by popularizing environmental knowledge and promoting green living awareness, such as the "Energy Conservation

Awareness Enlightenment Movement" of the Japanese Ministry of Economy, Trade and Industry, we use media and community lectures year-round to help everyone develop energy-saving habits;Schultz (1999) verified through community garbage recycling experiments that "standardized feedback intervention" (publicizing the amount of recycling and comparing it with neighbors) can significantly improve residents' participation rate, which is consistent with the logic of the Japanese Enlightenment Movement's use of communities to strengthen energy-saving atmosphere, confirming that individual behavior activation requires a dual approach of "knowledge popularization+social norms" [2]. At the corporate level, advocating social responsibility and promoting green management can force emissions reduction. For example, the EU's Corporate Sustainability Reporting Directive (CSRD) requires companies to disclose ESG information. If green production is not taken seriously, it cannot pass; At the community level, building shared platforms and establishing autonomous agreements can create an atmosphere, such as the "Green Points System" in some communities in Hangzhou, where residents can exchange their waste for daily necessities by sorting and conserving energy. Its advantage lies in "flexible implementation", focusing on micro scenarios that policies cannot attend to, and solving the problem of "policies not reaching the grassroots". Of course, behavioral intervention also needs to follow policies, such as optimizing production processes for enterprises, which must comply with the national "General Principles for Green Factory Evaluation", in order to work together with policies and truly improve efficiency and sustainable development.

3. THEORETICAL BASIS OF SUSTAINABLE DEVELOPMENT FROM A DUAL PERSPECTIVE

To truly coordinate policy regulation and behavioral intervention, it is necessary to rely on interdisciplinary theory as a foundation - first clarify their mechanisms of action and how to coordinate them, so as not to be blindly busy in practice. Taking public governance theory as an example, it believes that sustainable development is a public matter that cannot rely solely on the government. It requires the participation of the market and society, and policy regulation is the key to building this collaborative framework. For example, the EU's carbon trading system has established a regional carbon emission cap through the EU Climate Law, and has also created a unified carbon trading market for companies to buy and sell quotas. Companies can choose to upgrade their technologies or switch to clean energy if they want to reduce emissions, without having to obey administrative orders.This practice is highly consistent with Ostrom's (1990) theory of polycentric governance, whose core is that public resource governance requires a multi-level system of government, market, and social coordination. Ostrom has demonstrated through global case studies that flexible systems, such as carbon quota trading, can ensure policy rigidity, stimulate market dynamism, and avoid a one size fits all approach. This theory explains the reasons for EU carbon trading: the government sets a "rigid constraint" (upper limit) by law, and the market relies on trading for "flexible regulation", which not only compensates for the shortcomings of policy enforcement, but also reserves space for corporate behavior[3]. This theory tells us that policies cannot rely solely on government push, but must leave enough room for behavioral intervention. Looking at the theory of planned behavior again, it states that whether people are willing to do sustainable things depends on three aspects: attitude is whether the public recognizes low-carbon travel, subjective norms are the green atmosphere in the community, and perceived behavioral control is whether there are convenient public transportation and bicycles. So for behavioral intervention, either popularize environmental knowledge to change attitudes, establish community agreements to create an atmosphere, or add facilities to reduce difficulties. Sweden has done so by adding dedicated bike lanes in urban areas and rating them as "low-carbon model families". In recent years, the bicycle travel rate has increased significantly, becoming a good example of low-carbon transportation in Europe. The core of this theory is not to rely solely on reasoning, but to guide people according to their psychology. The theory of collaborative governance focuses more on "how to gather together and make efforts", emphasizing the integration of goals, resources, and information. For example, when China's plastic restriction

policy was first introduced, there were few biodegradable bags that people were not used to, and the effect was average. Later, alternative product standards were added, and supermarket eco-friendly bag rentals were also launched, gradually achieving the goal of reducing plastic; The government provides subsidies for community green point projects, and community volunteers help promote policies, which is a complementary resource; Policy adjustments depend on the data of residents' garbage classification, and community energy-saving renovations must also comply with national green building standards. This is information exchange. At the end of the day, this theory aims to unite policies and behavioral interventions, rather than going their separate ways, in order to achieve a 1+1>2 effect.

4. THE REALISTIC DILEMMA OF SUSTAINABLE DEVELOPMENT FROM A DUAL PERSPECTIVE

In theory, policy regulation and behavioral intervention can complement each other, but in practice, they always encounter difficulties, not only failing to exert force, but also hindering sustainable development. Policies are often disconnected from actual needs and people's perceptions, and even the best policies cannot be implemented [4]. For example, some Southeast Asian countries require small and medium-sized enterprises to install industrial wastewater treatment equipment within a specified period of time, and the cost of procurement and maintenance far exceeds their ability to bear. Enterprises can only find ways to avoid it; In the early years of China's governance of high energy consuming industries, some places shut down small steel and chemical plants in a one size fits all manner, without providing transformation subsidies and technical support, which instead led to problems of enterprise survival and local employment; The EU's "Energy Efficiency Directive" in 2006 was the same, requiring the replacement of energy-saving equipment without properly collecting household electricity data, and without considering household electricity habits and living conditions, the implementation effect was naturally poor. Without policy support, behavioral intervention is more prone to dispersion and short-term difficulties. In the early years, some cities in China engaged in garbage classification, with different administrative regions in the same city having different standards for the category and disposal time of "recyclable materials", making it difficult for residents to understand how to live across districts; Many countries' "environmental protection propaganda weeks" rely on lectures and public service advertisements to raise attention in the short term, but once the event ends without follow-up guidance, it quickly returns to its original form; The community's "green living advocacy" mostly only posts slogans and conducts volunteer cleaning, without being linked to local garbage classification assessments and energy-saving subsidies, and cannot fit into the regional governance system. Its influence is limited to the community. More importantly, there is no coordination mechanism between the two, and they basically go their separate ways. Some third - and fourth tier cities promote "green buildings" without asking residents about their housing preferences and living costs. Although the houses built are environmentally friendly, they are either energy-saving and not cost-effective, or the designs are not practical, and not many people are willing to live in them; Policies always emphasize government regulation and corporate emissions reduction, but do not provide channels for the public to participate, establish environmental protection suggestion platforms, or clarify supervision and reporting methods. Behavioral intervention relies entirely on self-awareness, without policy incentives or guarantees; The government's special funds for environmental protection are heavily invested in major projects such as industrial emissions reduction and watershed management. Communities lack funding for garbage classification promotion and energy-saving renovation, and it is impossible to sustain long-term efforts. At the end of the day, these difficulties stem from the fact that policies prioritize public interest and overall goals, while behaviors consider individual needs. These two logics do not align, making it difficult for sustainable development to break through.

5. COLLABORATIVE PATH OF SUSTAINABLE DEVELOPMENT FROM A DUAL PERSPECTIVE

To solve the collaborative dilemma mentioned earlier, the key is to focus on the two core levels of goals and tools, and build a fusion path of policy regulation and behavioral intervention to truly enhance the practical effectiveness of sustainable development.

5.1. Goal Synergy: Establish a System of "Policy Guidance and Behavior Implementation"

We need to focus on the overall goal of sustainable development, clarify the goals of policies and behaviors, and not confuse the direction. The policy first sets "framework goals", such as China's "dual carbon" target, which specifies the goal of peaking carbon emissions before 2030 and achieving carbon neutrality before 2060, and outlines the general direction for behavioral intervention; Behavioral intervention breaks down these major goals into micro indicators, such as "per capita monthly low-carbon travel frequency of residents" and "energy consumption reduction per unit output of enterprises", to provide specific measures for action. More importantly, it is important to listen to opinions before formulating policies. For example, when the European Union formulated the "Circular Economy Action Plan", more than 100000 public feedback were collected online to ensure that policy goals match everyone's actual abilities and avoid "brainstorming goals".

5.2. Tool Collaboration: Combining "Rigid Constraints+Flexible Guidance"

We need to combine the advantages of policies and behaviors as tools, and not go it alone. Policies cannot rely solely on coercion, they need to be accompanied by incentives and services. For example, China provides subsidies for purchasing new energy vehicles to help consumers reduce costs, and promotes the construction of charging stations to reduce barriers to use. According to data from the China Association of Automobile Manufacturers, the penetration rate has increased from 1.3% in 2015 to 30.8% in 2023, which is the effectiveness of tool matching; Good behavior intervention also relies on policy support. For example, Japan has included "community garbage classification autonomy" in the Waste Management Law, clarifying what communities should manage and what rights they have. According to statistics from the Japanese Ministry of the Environment, the accuracy rate of garbage classification has increased from 50% in 2000 to 85% in 2023 [5]. In addition, tools need to be adjusted according to the stage: at the beginning, we rely on policies to establish environmental standards to "lay the foundation", and when everyone's environmental awareness comes up, we rely more on guiding and promoting green living, and flexibly respond to the needs of different stages. By solidly addressing these two levels, policy and behavioral interventions can achieve consistent goals and complement each other's tools, breaking free from the limitations of the traditional model of 'each doing its own thing', and truly transforming sustainable development from 'passive implementation' to 'active participation'.

6. TYPICAL CASE ANALYSIS OF DUAL PERSPECTIVE COLLABORATION

Many countries and regions around the world have achieved significant results in sustainable development through policy and behavioral interventions. Analyzing these typical cases can not only verify the feasibility of collaborative paths, but also provide reference for other regions. Taking the European Union Emissions Trading System (EU ETS) as an example, as the world's most mature carbon trading market, the logic is clear: policies rely on the EU Climate Law and Emissions Trading Directive to set total quotas, quota rules, and compliance requirements. Companies that fail to meet the standards will be fined more than 100 euros per ton of carbon emissions; Enterprises can flexibly

choose to purchase quotas or reduce emissions independently (such as switching to wind power and photovoltaics), and the EU also has a low-carbon technology platform to provide consultation. The effect is significant. According to the 2024 report of the European Commission, as of 2023, the carbon emissions of enterprises within the system have decreased by 43% compared to 2005, and the proportion of renewable energy consumption has increased from 8.5% to 22%. The key is that policies provide direction and rely on market mechanisms to link enterprise interests, avoiding a one size fits all approach. The "Ten Million Project" in China is a benchmark for sustainable rural development, which relies on policy guidance to activate the initiative of villagers. In terms of policy, the central government has issued three-year and five-year plans for rural living environment improvement, clarifying standards for garbage collection and sewage treatment. The central government provides subsidies, and local governments provide 500000 to 1 million yuan per village for village improvement; In terms of behavior, encourage villagers to participate in the design through the "council meeting", assign responsibilities with the "three guarantees in front of the door", and reward with the "beautiful courtyard" [6]. According to data from the Ministry of Agriculture and Rural Affairs, by 2023, the project will cover over 90% of administrative villages, the rural sanitary toilet penetration rate will increase from 20% in 2003 to 86%, and the village green coverage rate will reach 32%. The key is to respect the villagers' subjectivity in policies, design according to their needs, and transform them from "bystanders" to "participants", bridging the "last mile" of implementation. The Japanese garbage classification system is also worth learning from: the country relies on laws to set standards and assign responsibilities, with a maximum fine of 100000 yen for illegal disposal; The community is guided by residents who volunteer to teach classification, set the time for disposal, and hand over resources, garbage, and biodegradable daily necessities. According to the 2024 White Paper by the Japanese Ministry of Environment, the amount of landfill waste in 2023 will decrease by 60% compared to 2000, and the resource recovery rate will reach 35%. Here, policies provide unified standards and guarantees, and communities are managed with precision to solve micro problems that policies cannot address. Although the three cases are from different regions and fields, they all confirm the value of the synergy of "policy+behavior": setting up a framework for policies, providing guarantees, supplementing details for behavior, and promoting implementation. By combining them, the efficiency of sustainable development can be greatly improved.

7. CONCLUSION

This article explores the implementation logic of sustainable development from the dual perspectives of policy regulation and behavioral intervention, through theoretical analysis, dilemma sorting, path construction, and case verification. The core conclusions are as follows: firstly, policy regulation and behavioral intervention are the "one body, two wings" of sustainable development, and neither can be lacking. Policy regulation relies on rigid systems to set direction and draw bottom lines, preventing disorderly development; Behavioral intervention activates micro subject dynamics, solves the difficulty of policy implementation, and achieves refined promotion. The synergy between the two directly affects the efficiency and quality of sustainable development, and relying solely on one will inevitably lead to "institutional idleness" or "scattered behavior". Secondly, the key to dual perspective collaboration is to solve the problems of "goal disconnection, tool conflicts, and mechanism deficiencies". In terms of goals, it is necessary to link the policy framework with the implementation of behaviors in a layered manner, in order to prevent policies from deviating from reality or behaviors from deviating; Integrating policy "mandatory+incentive" and behavior "guidance+service" on tools to form complementarity; Mechanisms need to establish guarantees for information exchange, resource complementarity, and joint evaluation of effectiveness. Data supported cases such as the EU carbon trading system and China's "Ten Million Project" show that solving these three points is necessary to achieve "1+1>2". Thirdly, collaborative practice should be tailored to regional differences. Due to differences in economic level and social culture, the focus of collaboration should also be different: developing countries can first improve their policy framework

and lay the foundation for behavioral intervention; Developed countries can refine behavioral interventions and improve policy efficiency; Rural areas focus on activating villagers' behavior and improving living conditions through policies; Cities guide businesses and the public to promote low-carbon initiatives through the market. This study also has limitations: the cases are mostly focused on Europe, America, and East Asia, with little attention paid to Africa and Latin America; The exploration of the application of digitalization (such as big data) in collaboration is relatively shallow. Future expandable cases, combined with digital tools to deepen research. Overall, the synergy between policies and behavioral interventions is the key to breaking through the bottleneck of sustainable development. Only by combining "government led" with "social participation", "institutional constraints" with "conscious behavior", can sustainable development be transformed from a "global consensus" to a "global action", laying the foundation for achieving the 2030 Agenda for Sustainable Development.

REFERENCES

[1] Kurian M. The water-energy-food nexus: trade-offs, thresholds and transdisciplinary approaches to sustainable development[J]. Environmental Science & Policy, 2017, 68: 97-106.

[2] Schultz P W. Changing behavior with normative feedback interventions: A field experiment on curbside recycling[J]. Basic and applied social psychology, 1999, 21(1): 25-36.

[3] Ostrom E. Governing the commons: The evolution of institutions for collective action[M]. Cambridge university press, 1990.

[4] Xu Guangjian, Lu Qianqian, Xu Kun Cracking the dilemma of policy implementation: based on the multi task delegation agency model [J]. Administrative Management Reform, 2020, (09):48-59.DOI:10.14150/j.cnki.1674-7453.2020.09.004.

[5] DiMaggio P J, Powell W W. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields[J]. American sociological review, 1983, 48(2): 147-160.

[6] Arnstein S R. A ladder of citizen participation[J]. Journal of the American Institute of planners, 1969, 35(4): 216-224.