

Grassroots Statistics in Towns and Townships: New Approaches to Supporting Rural Revitalization

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Abstract: The implementation of the rural revitalization strategy requires accurate and reliable data as support. As the primary source of data for rural development, grassroots statistics in towns and townships can comprehensively collect information on rural industries, talent, ecology, and other fields, providing a quantitative basis for grassroots governance and policy formulation. To enhance the efficiency of grassroots statistics in towns and townships, this paper, in line with the current requirements and development directions of the rural revitalization strategy, outlines the practical value of grassroots statistics in supporting rural revitalization, deeply analyzes the prominent challenges at the present stage, and explores new approaches such as digitalization, grid management, and cross-departmental collaboration to fully unlock the value of statistical data elements, striving to support comprehensive rural revitalization with high-quality statistical data.

Keywords: Grassroots statistics in towns and townships; Rural revitalization; New approaches

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1. Introduction

The comprehensive implementation of the rural revitalization strategy serves as the overarching approach to advancing “agriculture, rural areas, and farmers” work in the new era, while accurate and detailed data statistics provide a crucial foundation for scientific planning and effective policy implementation. The quality of grassroots data statistics directly impacts the effectiveness of macro-level decision-making. Against the backdrop of accelerated modernization of agriculture and rural areas, grassroots statistics in towns and townships not only serve as a “barometer” reflecting rural development but also play a pivotal role in supporting the comprehensive upgrading of rural industries, ecology, and governance. However, current grassroots statistical work in towns and townships faces challenges such as low data conversion and application rates and outdated statistical methods, which are no longer compatible with the pace of rural revitalization. To comprehensively enhance the role of grassroots statistics in towns and townships in supporting rural revitalization, grassroots statistical personnel need to actively explore innovative reforms, new ideas, and work methods to provide robust data support for achieving rural revitalization.

2. Practical value of grassroots statistics in towns and townships in supporting rural revitalization

Grassroots statistics in towns and townships serve as a fundamental tool for understanding the baseline of rural development and promoting comprehensive rural revitalization, possessing irreplaceable practical value. Through regular household surveys, industry assessments, and livelihood account statistics, they can accurately grasp the true scale of rural industries, collective economic income, household income and expenditure, living environment, and public services, achieving dynamic monitoring of the five major areas of rural revitalization and providing objective and reliable data support for comprehensively understanding rural development status ^[1]. From a policy perspective, accurate statistical data can eliminate information gaps in decision-making, helping grassroots areas reasonably adjust agricultural funds, plan characteristic industry layouts, optimize agricultural subsidy allocations, and enhance the targeting and precision of policy formulation. Meanwhile, the implementation of standardized statistical indicators can quantify the effectiveness of revitalization efforts, forming an objective and scientific evaluation benchmark. With comprehensive agricultural data support, information channels between farmers, village collectives, and the government are opened up, rural development shortcomings and income-generating potential are deeply explored, and scattered data is transformed into reliable governance bases, effectively promoting the transition from extensive rural management to digital precision governance and truly leveraging the comprehensive effectiveness of grassroots statistical data in serving industries, benefiting the people, and optimizing potential.

3. Existing challenges in grassroots statistics in towns and townships serving rural revitalization

3.1. Weak grassroots statistical foundations

Within current rural areas, there is a shortage of dedicated statistical personnel at the township and village levels, with most positions being filled by village officials or clerks on a part-time basis, leading to frequent personnel turnover ^[2]. However, these grassroots statistical personnel in towns and townships have not received systematic professional training and possess relatively weak abilities in understanding statistical indicators, filling out accounts, and calculating data. Simultaneously, villages lack basic data collection equipment, with limited human and material resources for household visits and on-site verifications. The heavy reporting tasks form a stark contrast with the limited manpower, forcing personnel to passively submit reports without delving into the front lines to verify the true situations of farmers and business entities, thereby reducing the reliability of statistical data at the source and constraining the fundamental capacity of statistical work to serve rural revitalization.

3.2. Inadequate monitoring systems

In current grassroots statistical services in towns and townships, existing rural revitalization statistical indicators are outdated, mostly follow traditional industrial and agricultural statistical scopes, and are incompatible with emerging development areas such as characteristic industries, rural cultural tourism, collective economies, and living environments. Secondly, the connection between urban and rural statistical indicators is not smooth, with a lack of detailed dimensions for monitoring village-level micro-businesses and household income. Even when monitoring is conducted, it is characterized by fixed and singular frequencies, coupled with vague quantification standards for some livelihood and ecological indicators, relying heavily on subjective estimates by personnel, failing to accurately quantify the true development level of rural areas, and ultimately making it difficult to comprehensively and three-dimensionally reflect the overall picture of rural revitalization progress, which is

inconsistent with the data demands for precise policy implementation.

3.3. Shortcomings in data governance

In rural work, data barriers are particularly prominent among various agricultural-related departments such as agriculture and rural affairs, civil affairs, natural resources, and market supervision, with each system platform operating independently, lacking unified data standards, and making it difficult to achieve interoperability and sharing. Secondly, during grassroots data collection, personnel still rely on paper-based accounts, with low penetration and application rates of digital collection tools, making data entry repetitive and cumbersome. During data storage and archiving, there is a lack of standardized processes, leading to frequent instances of lost or disordered historical data. Furthermore, cross-departmental data integration is extremely challenging, with fragmented data unable to form a complete database, making it difficult for personnel to conduct comprehensive analyses of rural industries and livelihood resources based on data, significantly weakening the role of data governance in supporting rural development ^[3].

3.4. Insufficient transformation support

In current grassroots statistical work in towns and townships, the prevalent issue of “emphasizing reporting over analysis” exists, with personnel merely completing basic reporting tasks without forming an awareness of data mining and trend analysis, resulting in narrow application scenarios for statistical results and rare conversion into decision-making bases for industrial planning, agricultural subsidies, and grassroots governance. Additionally, the professionalism of statistical analysis reports is lacking, with a shortage of countermeasure suggestions that align with actual rural situations, making it difficult for township and village officials to utilize grassroots data. In this context, vast amounts of grassroots statistical data remain idle, with their value not being realized, and statistical work becoming disconnected from rural revitalization efforts, limiting the effectiveness of data support.

3.5. Lack of legal and performance constraints

Some grassroots officials possess weak awareness of statistical legality and fail to strictly implement relevant requirements of the Statistics Law, engaging in behaviors such as estimating reports and adjusting data to artificially interfere with data. The existing performance evaluation mechanism overly emphasizes data growth rates and quantitative indicators, compelling grassroots areas to beautify data to meet evaluations. Besides, the existing data verification and supervision mechanisms are incomplete, with regular on-site spot checks and post-event rectification closures not being implemented, and the penalties for data falsification and violations being extremely low. There is a lack of diversified evaluation standards that balance development performance and data quality, with a persistent one-sided mindset that emphasizes results over processes continuously undermining statistical authenticity and also constraining the objective evaluation of rural revitalization effectiveness by statistical work ^[4].

4. New approaches for grassroots statistics in towns and townships to support rural revitalization

4.1. Establishing a “five-level linkage” statistical monitoring indicator system for rural revitalization

In grassroots statistical work in towns and townships, to better support rural revitalization, it is necessary to innovate and create a five-level linkage statistical monitoring indicator system involving the provincial, county,

township, village, and group levels. Based on the overall strategic requirements of thriving industries, livable ecology, civilized rural ethos, effective governance, and affluent life, subdivide specific indicators such as characteristic agriculture, rural cultural tourism, village-level collective economy, living environment, and healthcare. Outdated and obsolete statistical methods should be eliminated, and special monitoring items for new rural business entities, digital agriculture, and new forms of farmers' income growth should be added. On this basis, each level should clearly define its statistical responsibilities and powers, with the provincial level coordinating the indicator framework, the county level refining local characteristic indicators, the township level responsible for aggregation and verification, and the village and group levels implementing frontline data collection, forming a virtuous operational model with unified standards from top to bottom and step-by-step aggregation from bottom to top. Overall, with the deepening implementation of the five-level linkage system, details and characteristics in the rural development process can be comprehensively captured, addressing issues of one-sided monitoring and fragmented data in the past, providing a unified and complete data measurement standard for accurately assessing the overall progress of rural revitalization, and laying a solid institutional foundation for statistical support^[5].

4.2. Building a big data platform for rural revitalization

With the continuous development of science and technology and socio-economic progress, various emerging technologies continue to emerge, providing an intelligent path for the deepening implementation of the rural revitalization strategy. In the process of innovating grassroots statistics in towns and townships to support rural revitalization, grassroots statistical work should recognize the drawbacks and limitations of traditional paper-based ledgers and actively introduce advanced digital technologies to reduce the burden on grassroots statistics in towns and townships at the source. A comprehensive big data platform for rural revitalization should be coordinated and established, accompanied by a data collection mini-program for mobile phones, enabling village-level information officers to report information on cultivated land, breeding, income, facilities, etc., in real-time during field visits. This mini-program can interconnect with the cloud, storing all information reported by information officers in the cloud, eliminating the cumbersome process of paper registration and the pressure of manual secondary data entry. Meanwhile, the big data platform should incorporate AI intelligent verification functions, allowing the system to automatically identify logical contradictions and abnormal data in the information, providing real-time warnings for misreporting and underreporting, and reducing errors. For complex data such as remote sensing data and basic farmer information, the platform can also quickly summarize and integrate it, achieving the goals of automatic aggregation and visual chart generation, eliminating the need for grassroots personnel to manually compile reports. With the help of digital tools, the potential of grassroots statistics is unleashed, work efficiency is significantly improved, and the limitations of traditional statistical cycle lag are overcome.

4.3. Cross-departmental data sharing

To enhance statistical efficiency, personnel need to start from the operational mechanism level and establish a coordinated mechanism for data sharing among multiple departments such as agriculture and rural affairs, natural resources, civil affairs, cultural tourism, and market supervision, unifying data standards and exchange interfaces, regularly collecting information on land transfer, agricultural subsidies, business entities, and rural projects, and breaking down information silos. Simultaneously, a grid-based management mechanism for town and village statistics should be improved, reasonably dividing grids based on the actual situation of villages, assigning an information officer to each grid, and implementing a work model of grid-based data collection and zonal verification. On this basis, a regular liaison and consultation system can also be established, with township

statistical stations coordinating data from various grids and functional departments for unified comparison and correction. With the mutual cooperation of these dual mechanisms, horizontal departmental data channels can be effectively opened up, vertical town and village collection responsibilities can be consolidated, achieving the goal of unified grassroots data collection and multi-party sharing, improving issues of duplicate data collection and inconsistent standards, and forming a collaborative and efficient statistical work pattern ^[6].

4.4. Embedding statistics into the full scenarios of industrial development, livelihood security, and rural governance

In grassroots statistical work in towns and townships, to unleash the value of data and ensure work efficiency, it is necessary to promote the full-scenario implementation of statistical work. As grassroots personnel, they must start from the industrial level, relying on statistical data on characteristic industries, expected returns, and market conditions to plan the industrial layout for rural revitalization, assess shortcomings between production and sales, and guide cooperatives to adjust their business models. In the livelihood sector, statistical data on farmer income and expenditure, pension security, and industrial layout should be used to identify low-income groups and optimize the allocation of assistance funds in a targeted manner. In rural governance, data on the living environment, conflicts and disputes, and public facilities can be integrated to accurately identify weak links in grassroots governance, establish a regular and systematic statistical analysis and reporting mechanism, regularly produce data analysis reports that align with the actual situation of towns and villages, and provide a scientific basis for rural revitalization planning projects and policy implementation, ultimately achieving the goal of transforming statistics from mere reporting work into a development tool, with vast amounts of grassroots data directly applied to various aspects of rural construction, truly realizing the effectiveness of data support.

4.5. Regular cultivation mechanism for dedicated statistical posts + village-level information officers

In the process of exploring new approaches for grassroots statistics in towns and townships to support rural revitalization, it is essential to align with the indicator elements of the “five-level linkage” system, starting from townships, establishing dedicated statistical posts, clarifying staffing and job responsibilities, and ensuring that specialized personnel are assigned to conduct data aggregation, review, and analysis. Secondly, fixed village-level statistical information officers should be assigned from each village, prioritizing village officials or grid members who have a good understanding of the village’s actual situation and are responsible, establishing a regular hierarchical cultivation mechanism, regularly conducting special training activities on indicator interpretation, platform operation, data verification, and statistical analysis, and organizing inter-township exchange and observation learning. On this basis, complementary incentive measures should be implemented, establishing work subsidies for information officers, incorporating data reporting quality into evaluation criteria, reducing personnel turnover, ensuring the authenticity and completeness of frontline data collection with a stable professional team, continuously improving the professional level of grassroots statistics in towns and townships, and providing human support for long-term support for rural revitalization.

4.6. Full-process data quality control

To improve the data quality of grassroots statistics in towns and townships, it is necessary to regulate statistical behavior through legal constraints and scientific methods. Firstly, the popularization of statistical law should be carried out regularly, conducting legal publicity for township and village-level personnel, clarifying punishment clauses for false reporting and data tampering, and upholding the bottom line of truthful statistics. Subsequently,

a full-process quality control mechanism should be established, implementing a closed-loop system of household verification, hierarchical review, and random inspections, keeping verification records for all stages of collection, aggregation, and reporting, and promptly correcting data deviations. If issues such as unclear division of responsibilities and weak overall management exist, a diversified evaluation and assessment system should be reconstructed, abandoning the single-indicator evaluation method based on growth rates, ensuring the effectiveness of multi-dimensional content such as data authenticity, statistical analysis results, data application effectiveness, and feedback from grassroots people, appropriately weakening the pressure of numerical rankings, strengthening the performance-oriented approach, upholding data bottom lines with legal means, and guiding grassroots practical statistics with scientific assessments, ensuring that statistical results objectively reflect the true development level of rural revitalization.

5. Conclusion

In summary, grassroots statistics in towns and townships play a genuine role in reflecting the development of rural areas and play an indispensable supporting role in promoting the rural revitalization strategy. In the new era, grassroots personnel need to recognize the value of grassroots statistics in towns and townships, scientifically reshape grassroots statistical methods in multiple directions and means, bring dormant statistical data to “life,” transform it into a driving force for the healthy development of rural industries and ecology, provide precise navigation and solid support for rural revitalization, and assist vast rural areas in steadily advancing on the path of high-quality development.

Disclosure statement

The author declares no conflict of interest.

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