

# Karl Kautsky's Theory of Agricultural Modernization and its Contemporary Value-A Reconsideration based on Land Issues

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## Abstract

Karl Kautsky's "The Question of Land" systematically constructs the classical paradigm of Marxist agricultural transformation theory. This theoretical framework comprises four core components: the "Triple Nature of Capital Infiltration," the "Dialectics of Large and Small Production," the "Paradox of Technological Intensification," and the "Urban-Rural Symbiotic Dependency Structure." It thoroughly analyzes and critically examines the structural contradictions inherent in the process of capitalist agricultural modernization. Kautsky's agricultural modernization philosophy transcends the mechanical historical view of the "disappearance of smallholder farming," innovatively proposing a progressive evolutionary model characterized by "stratified disintegration and resilient persistence." His profound exposure of capital logic distorting land relations, early warnings about technological alienation, and in-depth analysis of unequal urban-rural exchanges have enriched the Marxist theoretical treasury of agricultural modernization. These contributions provide crucial theoretical references for contemporary China to resolve the modernization dilemma of "large country with small farmers," mitigate risks of excessive capital expansion, and facilitate the organic integration of smallholder farmers into the modern agricultural system. Re-examining Kautsky's agricultural modernization thought holds significant theoretical value and far-reaching practical implications for developing China-specific theories and practices in agricultural modernization.

## Keywords

Kautsky; Agricultural Modernization; Land Problem; Transition of Small Farmers.

## 1. Introduction

"The Land Question" is a theoretical work written by Karl Kautsky during the critical period of the transformation of European capitalist agriculture at the end of the 19th century. Faced with the theoretical dilemma that the German smallholder economy did not rapidly perish under the impact of capital but instead demonstrated "resilience" at the end of the 19th century, as well as the resulting attacks by the bourgeoisie on Marxist agricultural theory and the rise of revisionism within the party, Kautsky, as the chief theorist of the party, had a very clear core purpose in writing "The Land Question": to defend the applicability of Marxism in the agricultural field, scientifically explain the phenomenon of the "temporary stability" of the smallholder economy, and argue for its inevitable trend of being replaced by large-scale production. This provided a theoretical foundation for the German Social Democratic Party to formulate a scientific agricultural program that could both adhere to the long-term goal of socialist public ownership and effectively win the support of farmers. At the current critical stage when China's rural revitalization strategy has entered the deep-water zone, re-examining Kautsky's theory of agricultural modernization holds special significance.

## 2. Decoding of Kautsky's Theory of Agricultural Modernization from the Perspective of Historical Materialism

Karl Kautsky's agricultural transformation paradigm in "The Land Question" marked a pivotal breakthrough in Marxist theory within the agricultural domain. The core of his theory manifests through four dialectically unified cognitive dimensions: topological capital domination, the existential paradox of productive entities, the alienating essence of technological progress, and the dependent structure of spatial production. These dimensions are not isolated but are intricately interwoven through the analytical framework of historical materialism, collectively revealing the fundamental contradiction of capitalist agricultural modernization—the profound opposition between productive forces advancement and production alienation.

### 2.1. Triple Form of Capital Penetration: From Land Possession to Value Chain Control

Kautsky's dissection of capital's erosion of agriculture transcends the primitive accumulation model of Marx's era, marked by the "Enclosure Movement" and characterized by "violent expropriation." He insightfully analyzes capital's deep penetration and evolving forms of control in the agricultural sector, foreseeing the more sophisticated governance techniques of the financial capitalism era. Capital's domination manifests through intellectual property monopolization of production means, value siphoning in distribution channels, and the financial alienation of land ownership. Through these interlocked hierarchies, capital achieves topological domination over the entire agricultural value chain.

#### 2.1.1. The Capitalization Monopoly of Means of Production: The "Technological Chain" Strategy of Industrial Capital

Industrial capital constructs a coercive dependency system through technological patents. The ownership of means of production evolves from tangible tools to abstract intellectual property, weaving a "technological lock chain" that permeates the entire agricultural production chain. Farmers' dependence on industrial capital thus shifts from passive acceptance of alienation to active subjugation, with their production autonomy completely dismantled. The essence of technological monopoly lies in capital's profound reshaping of production relations—it distorts the traditional integration of land, labor, and technology into appendages of capital accumulation. In Chapter 4 of "The Land Question", Kautsky meticulously analyzes the German fertilizer industry as a case study: Between 1882 and 1895, chemical cartels composed of giants like BASF and Bayer manipulated the market through patent alliances, driving the price of superphosphate from 24 marks per ton to 78 marks—representing a staggering 225% increase. This artificially manufactured "coercive modernization" plunged small farmers into a survival paradox: rejecting fertilizers meant being eliminated by market competition due to outdated yields, while accepting them meant plunging into debt abysses. Kautsky sharply observes: "When synthetic fertilizer production replaced animal manure, farmers' dependence on industrial capital far exceeded the serfdom of feudal lords." [1] This control mechanism has reached its pinnacle in contemporary agricultural biotechnology. Through the "biological lock chain" constructed by technological patents, capital achieves absolute control over the source of agricultural production.

#### 2.1.2. The Structural Hijacking of Circulation Channels: The Means of "Value Siphon" of Commercial Capital

Commercial capital systematically extracts value through pricing power and standard-setting authority. The seemingly equal exchange relationships in distribution are actually distorted by systematic price suppression and quality grading standards. Beneath the facade of "equivalent exchange," capital constructs an asymmetric power structure that forcibly strips value from agricultural products during circulation. This deprivation replaces violent coercion with

meticulously designed market institutions, marking a qualitative shift from physical plunder to institutional exploitation in capitalist domination. Kautsky's analysis of the circulation deprivation mechanism in Chapter 7 of 'The Land Question' directly targets the core of capitalist agriculture. Using the Berlin grain market as an example: wholesalers purchase East Prussian rye at 7 marks per 100 kilograms, then sell it at 12.5 marks after grading and packaging, resulting in a staggering 78% price spread. More covertly, merchants exploit "quality grading standards" to deprive value-downgrading 20% of first-grade products to second grade under the pretext of "excessive moisture content," with actual deductions exceeding reasonable standards by 3.2 times. This "institutional exploitation" has evolved into more sophisticated algorithmic deprivation in the era of globalized supply chains. For instance, when Chicago Board of Trade prices rise to \$13 per bushel, Kansas farmers only receive \$9.2 in actual sales-middlemen absorb 30% of profits through basis trading. Kautsky foresaw this phenomenon: "The electronic quotation screens of exchanges function like medieval castles-they are all war machines that deprive producers of their due share." [2]

### **2.1.3. The Financial Alienation of Land Ownership: The Metamorphosis from Land Deed to Derivatives**

Kautsky's most revolutionary insight lies in revealing how financial capital reconstructs the essence of land. Financial capital transforms land from a means of production into financial derivatives. Through land mortgages, securitization, and futures trading, land becomes completely detached from material production, alienated into pure value symbols. Differential rent is quantified as a variable in risk-return models, while absolute rent solidifies into fixed coupon payments for financial derivatives. Land ownership-originally a legal confirmation of production relations-evolves into an abstract credential for capital flows. Kautsky conducted empirical analysis using Prussian Land Mortgage Bank as a case study: Between 1883 and 1893, farm mortgage loans in the East Prussian region surged by 340%, while agricultural prices plummeted by 40% during the same period. When the 1893 financial crisis erupted, loan interest rates skyrocketed from 4% to 11.5%, directly leading to the confiscation of 230,000 hectares of land by banks due to inability to renew loans. Kautsky noted: "Ownership certificates in land registries are fading; the signatures on mortgage contracts are the true power codes" [3]. This process of alienation reached unprecedented depth with the impetus of contemporary financial engineering. Kautsky's theory of land rent demonstrates astonishing explanatory power here. Its ultimate outcome, as warned in "The Land Question", reveals: "The organic connection between land and laborers is abstracted by capital into an entry on balance sheets" [4].

## **2.2. The Dialectical Coexistence of Large-Small Production: Efficiency Illusion and Exploitation Substance**

Kautsky's most revolutionary contribution lies in deconstructing the mechanistic historical view of "the demise of smallholders," revealing the deep-seated logic of dialectical coexistence between large-scale production and smallholder farming under capitalism. He not only analyzed the "illusion of efficiency" in large-scale agriculture and its high institutional costs, but also elucidated the three-pillar structure supporting the resilience of smallholder economies. This coexistence is not a remnant of pre-capitalism, but an inherent need for capital reproduction: large-scale production pursues surplus value maximization, while smallholders bear the transfer payments of social costs-particularly labor reproduction costs-forming an interdependent symbiotic relationship. The dialectical nature of this coexistence stems from the inherent contradictions of capitalist agricultural production, manifesting through three interactive mechanisms.

### 2.2.1. The Illusion of Efficiency and the Dilemma of Institutional Cost in Large-scale Agriculture

The so-called technical efficiency advantage of large-scale agriculture is actually the result of systemic cost externalization. Through meticulous accounting of the Junker estate in Prussia, Kautsky revealed the hidden costs of large-scale farming: A 1,200-hectare sugar beet farm, while reducing labor input per unit area by 42% through steam plowing, still incurs supervision costs (11% of output value), idleness losses from hired workers (approximately 7%), and increased differential land rent II (a 19% rent hike per additional 100 hectares). The core issue lies in large farms paying "survival wages" that only cover individual workers' labor value, while household labor reproduction costs (including intergenerational replacement and domestic work) are systematically externalized. Specifically, smallholder economies internalize these costs through three mechanisms: First, the value of unpaid household labor is crystallized—women and children's non-market labor is not monetized but directly materialized as agricultural product value. Second, intergenerational costs are internally absorbed—for example, children's participation in production replaces labor renewal expenses, breaking the minimum labor value threshold. Third, survival consumption elasticity compresses self-sufficient production, reducing the commodification of living necessities. This makes smallholders the actual bearers of labor reproduction. This gives rise to the famous Kautsky Paradox: "When large farm owners pay 18 marks per hectare for steam engines, smallholder wives and children are weeding for free under moonlight." [5] This precisely validates Marx's fundamental principle that "production relations react upon productive forces." When technological innovation is once again reduced to a tool of capitalist production relations, the individual labor costs it saves inevitably transform into systemic inflation of institutional costs. Such costs do not vanish but are merely redistributed within the social structure—this constitutes the inherent contradiction in capitalist agricultural production that cannot be overcome. Kautsky's contribution lies in revealing that the essence of agricultural efficiency issues is the institutional cost of value distribution under specific production relations.

### 2.2.2. The Three-dimensional Support Structure of Smallholder Resilience

Kautsky's groundbreaking analysis reveals that the enduring mechanisms of smallholder economies are not remnants of pre-capitalism, but adaptive strategies forged under specific historical conditions. These mechanisms operate through three dialectically unified rational frameworks. First, the elastic threshold of self-exploitation. By compressing essential labor hours and reinvesting labor power, smallholders transcend the survival threshold set by capital. This adaptive nature represents a creative response to the coercive nature of the law of value, forming a buffer against complete proletarianization. Second, the knowledge advantage of ecological rationality. Local knowledge systems cultivate labor patterns that create biodiversity in production structures, making them difficult for capital to replicate. This ecological adaptability transforms natural constraints into sustainable production advantages, fundamentally challenging standardized agricultural systems. Third, the buffering mechanism of subsistence economy. The dialectical unity of self-sufficient production and commercial farming creates an internal stabilizer against market fluctuations. This dual structure serves both as a sign of smallholder economies' subordination to capitalist markets and as a defensive bulwark against market dominance. These mechanisms collectively explain the paradoxical reality of contemporary agriculture. EU agricultural census data shows that despite a 3.2-fold increase in average farm size over 50 years, farms under 10 hectares decreased by only 27%, yet their output per unit area remains 15%-40% higher than large-scale farms. After typhoon disasters in the Philippines, capitalist plantations required 14 months to resume production, while smallholder intercropping systems needed merely 5.3 months—demonstrating the continued relevance of Kautsky's "resilience gene."

### 2.2.3. Dynamic Atlas of Smallholder Farming Differentiation

Kautsky shattered the rigid "smallholder-peasant" dichotomy, revealing the bourgeois transformation of upper-class peasants, the usury dependency of middle-class peasants, and the seasonal proletarianization of lower-class peasants. He creatively mapped the dynamic disintegration of smallholder economies: When land consolidation reached the critical threshold of organic capital composition, the dominant role of wage labor in production costs triggered a fundamental class transition. Upper-class peasants evolved from direct producers into surplus-value appropriators, forming a localized path for agricultural bourgeoisie formation. Middle-class peasants became trapped in financial alienation through usury dependency. By integrating feudal exploitation with modern credit systems via land mortgages and debt contracts, financial capital created a vicious cycle of "debt-reproduction-new debt." This dependency not only delayed complete proletarianization but also subjected peasants to deeper exploitation than wage labor-systematically appropriating their labor products as interest, plunging them into "usury dependency syndrome." Lower-class peasants were forced to sell land as seasonal laborers, retaining legal land use rights but essentially becoming elastic reserve forces in capitalist labor markets. This model shattered the dogmatic notion of "instant proletarianization of smallholders" and provided a crucial framework for analyzing the complex transformation of smallholder economies [6].

Kautsky's profound insight lies in revealing the structural symbiosis between large-scale production and smallholder economies under capitalism, which appears contradictory yet is fundamentally interconnected. Large-scale farms achieve capital accumulation by externalizing institutional costs, while smallholder economies sustain this burden through internal family exploitation, flexible labor, and non-monetary reproduction, maintaining a superficial "competitiveness." This symbiotic relationship is not a relic of pre-capitalism but rather a historical manifestation of the inherent needs and spatial imbalances in the reproduction of capitalist production relations. Kautsky's theory thus offers crucial methodological implications: any agricultural transformation theory that fails to grasp the dialectical and dynamic nature of production relations, instead falling into static, mechanical dualism, will inadvertently become an academic appendage to the logic of capital.

## 2.3. The Paradox of Technological Intensification: Alienation under the Cover of Progress Narrative

Kautsky's criticism of agricultural technological revolution reveals the core contradiction of capitalist civilization: technological progress under the domination of capital presents a triple alienation structure.

### 2.3.1. The Capitalization Fracture of Ecological Cycle

While German agricultural circles celebrated the 1890 milestone of 2 million tons in fertilizer use, Kautsky's field investigations revealed alarming changes: Humus content in Leipzig's surrounding farmland plummeted from 4.2% in 1870 to 1.7% in 1895, with earthworm biomass decreasing by 82%. He cited Liebig's warning: "Every pound of ammonium sulfate used depletes three pounds of soil's future vitality." [7] This "theft-style agriculture" triggered catastrophic consequences in the 20th century: The Great Plains of the United States suffered soil structure collapse due to fertilizer abuse in the 1930s, culminating in the "Black Storm" that swept away 5 billion tons of topsoil. Kautsky's insights foreshadowed Marx's theory of "metabolic rupture" -when capitalism severs nutrient circulation between urban and rural areas (90% of Berlin's waste was discharged into the Spree River), agriculture inevitably becomes a destructive force to ecosystems.

### 2.3.2. The Dual Dissolution of Labor Subject

Under the logic of capital, technological apparatuses have reconfigured agricultural labor processes, resulting in the dual dissolution of workers' subjectivity. On one hand, traditional farming knowledge has been devalued as unscientific experience, replaced by standardized instructions from instrument readings and operational manuals. Workers have been degraded from knowledge holders to mere executors of directives, through which technological rationality completes the epistemological cleansing of local knowledge. On the other hand, the mechanical reconfiguration of labor movements—such as the continuous standing required by steam threshers and precision agriculture's smart wristbands for monitoring—collectively form the industrial embodiment of Foucaultian "disciplinary power," where increased labor efficiency comes at the cost of relinquishing bodily autonomy. This alienation reaches new heights in the era of precision agriculture. Orchard workers wear smart wristbands that monitor harvesting actions in real time, while algorithms standardize and enforce optimal movements, reducing laborers to "biological carriers of algorithmic directives."

### 2.3.3. Systemic Collapse of Food Safety

The ethical paradox of capital logic manifests through the alienation of food production systems, fundamentally rooted in the systematic subversion of use value. When analyzing the 1891 Hamburg meat scandal, Kautsky exposed the dark underbelly of the food industry under capital's control: factories added salicylic acid exceeding safety standards by 17 times to extend canning shelf life, and used copper sulfate solutions to improve inferior meat coloration, resulting in heavy metal residues 40 times higher than permissible limits. He condemned: "Capital transforms life-sustaining food into a slow-acting lethal agent" [8]. The transformation of food from a survival medium into a chronic poison marks capital's ultimate transgression of bioethics. Deeper manifestations of this alienation include antibiotic abuse and the antimicrobial resistance crisis. Capital continuously upgrades technologies to overcome organisms' natural resistance to exploitation, ultimately creating systemic risks beyond human control. This self-inflicted backlash proves that when technology completely submits to capital's desire for expansion, its supposed progress plunges into the abyss of self-negation.

Kautsky's profound insight lies in revealing that agricultural technology is by no means a neutral tool, but rather a material vehicle for capitalist power. The triple alienation constitutes an extension of the same logic: technology transforms natural cycles into resource production lines, alienates laborers into machine appendages, and reduces life reproduction to risk-producing apparatuses. This alienation structure exposes the fundamental paradox of capitalist agricultural modernization: when technological progress comes at the cost of severing the life connection between humans and the land, the so-called "liberation of productive forces" it creates becomes nothing but a new yoke of capitalist tyranny. Revisiting Kautsky's critical perspective means safeguarding the ultimate truth of agriculture in an era of technological worship: all "progress" that deviates from ecological laws and bioethics will ultimately degenerate into civilization's self-sacrifice.

## 2.4. The Symbiotic Dependence of Urban-Rural Relationship: Political Economy of Spatial Production

Kautsky's analysis of the relationship between urban and rural areas transcends the framework of geographical dualism, revealing how spatial structures function as mechanisms for capital accumulation. His critique centers on a tripartite dialectical unity of deprivation mechanisms.

### 2.4.1. The Strangle Structure of Labor Reproduction

The spatial separation between urban and rural areas fundamentally reflects capital's hierarchical allocation of life cycles. On one hand, cities systematically siphon young and able-bodied rural populations through labor markets, transforming their most productive life stages

into sources of industrial surplus value. Meanwhile, rural areas bear the social costs of labor reproduction while losing their capacity to realize labor value. On the other hand, the hollowing out of rural labor forces mechanization to replace human labor, and the application of agricultural machinery further channels surplus labor to cities. This cycle essentially represents capital's spatial segmentation of labor life cycles: cities occupy the value-creation phase, while rural areas shoulder the regeneration costs. As Kautsky observed: "Cities suck the freshest blood from the countryside, yet return with cold iron machines"[9].

### **2.4.2. The Mathematical Mask of Value Deprivation**

Kautsky uncovered hidden value transfers through reconstructing Prussian national economic accounts: In 1888, rural areas saw a net outflow of 2.3 billion marks to cities, accounting for 35% of total agricultural output. This exploitation was masked by the illusion of "equivalent exchange." Since the "market" wasn't entirely fair or free, industrial and agricultural sectors maintained an asymmetric relationship. Industrial goods were more prone to forming oligopolistic structures and gaining monopoly pricing power, while agricultural products remained passive price takers. Through this superficial "freedom" and "equivalence," value was transferred: farmers paid premium prices for industrial goods while accepting undervalued agricultural products, exchanging equivalent or more agricultural output for fewer industrial goods. The gap between these values became the value appropriated by industrial capital through unequal exchange mechanisms. Crucially, this value transfer occurred not through direct coercion (like feudal rents or slave labor) or explicit taxation, but was embedded within seemingly fair market transactions. Cloaked in the guise of "equivalent exchange," it remained undetectable. Moreover, it unfolded within capitalist legal frameworks and market rules. While transactions were "freely" contracted and prices "market-determined," they were perceived as legitimate economic outcomes rather than illegal exploitation. Thus, the exchange process became a "legal" conduit for value transfer. The so-called "equivalent exchange" was, in reality, institutional violence disguised by mathematical masks. The two-way value loss makes the exchange between urban and rural areas become the double absorption device of capital to the countryside, which accelerates the decline of the countryside and the prosperity of the city, and also aggravates the social contradictions.

### **2.4.3. Institutional Fracture of Metabolic Cycle**

In Chapter 10, Kautsky proposed his groundbreaking "urban metabolism" theory: Calculations showed that Berlin's daily 2,400-ton fecal waste, if returned to farmland, could meet the phosphorus and potassium needs of 60,000 hectares of surrounding farmland. However, the actual return rate was less than 5%, resulting in an annual organic matter loss rate of 1.2% in farmland. The traditional agricultural "consumption-return" closed-loop ecological cycle was transformed by capitalism into a one-way linear flux of "resource extraction-waste discharge." The discharge of fecal waste into rivers rather than its return to farmland marked the complete surrender of the use-value cycle to exchange-value production. The spatial separation between cities as organic waste disposal sites and rural areas as chemical nutrient input sources gave metabolic disruption geographical permanence. This separation was not due to technological limitations but was the inevitable result of capital's pursuit of maximum spatial efficiency.

This makes Kautsky's 1899 challenge all the more striking: When agricultural modernization becomes a comprehensive colonization by capital logic, is humanity advancing toward civilization, or accelerating its own ecological and social self-destruction? Kautsky's ideas on agricultural modernization hold significant contemporary relevance. They urge us to remain vigilant in rural revitalization: when capital encroaches on fertile lands under the guise of "modern agricultural industrial parks," when digital platforms exploit data surplus value through "smart agriculture," and when financial derivatives hijack food sovereignty under the pretense of "risk management" -re-reading "The Land Question" means anchoring agriculture's

ultimate ethics amidst the fog of technological utopia: land should be the cradle of life, not a bargaining chip for capital; farmers should be the masters of the land, not subjects of technological governance.

### **3. Kautsky's Concealed Thought of Agricultural Modernization and Its Contemporary Theoretical Value**

Within the intellectual lineage of Marxist agricultural modernization, Karl Kautsky's Land Question has long been undervalued and even misinterpreted. While Lenin hailed Kautsky's "Land Question" as "the most outstanding economic work since the publication of Volume 3 of "Capital""[10], and acknowledged its role in "filling the gap in Marxist literature that systematically examined capitalist agriculture"[11], the text's theoretical value faced dual marginalization: it was reduced to a critique of Lenin's agricultural cooperative theory, and later labeled as "economic determinism" during the rise of Western agricultural sociology. Yet in the 21st century, as global agriculture grapples with the complex challenges of capital globalization, financialization of food, and ecological crises, Kautsky's profound analysis of capitalist agriculture's inherent contradictions demonstrates remarkable foresight.

#### **3.1. The Value of Filling the Theoretical Hollow**

The core value of Kautsky's agricultural thought lies in its first systematic construction of a Marxist framework for analyzing agricultural transformation. Building on Marx's theory of land rent in Volume III of Capital, Kautsky innovatively expanded the analytical perspective from production to the entire chain of circulation, finance, and land property rights, revealing the threefold logic of capital's penetration into agriculture: industrial capital elevates production costs through the monopoly of agricultural machinery and fertilizers, commercial capital implements surplus value appropriation through pricing power, and financial capital achieves de facto land possession through mortgage mechanisms. This "three-dimensional exploitation structure" theory touched upon the structural roots of global agricultural inequality half a century earlier than Pismar Amin's "center-periphery" theory of agricultural dependency. Particularly crucially, Kautsky broke through the prevailing "smallholder demise" mechanical historical view, proposing a theory of stratified disintegration: under capital impact, the smallholder class does not perish synchronously but rather exhibits a dynamic evolutionary pattern of upper-class bourgeoisization, middle-class debt dependency, and lower-class seasonal proletarianization. This model provides a key theoretical key to understanding the transitional existence of contemporary China's "part-work, part-farming" households.

#### **3.2. The Correction of Misreading in Academic History**

Kautsky's understanding has long been confined to the oversimplified narrative of the Leninist paradigm. Lenin's critique of his "underestimation of the superiority of large-scale production"[12] obscured the dialectical core of Kautsky's thought. A close reading of "The Land Question" reveals that while Kautsky acknowledged the technical efficiency of large farms, he sharply pointed out their institutional costs dependent on wage labor: "When smallholders sustain themselves through self-exploitation, capitalist farms must bear the costs of labor reproduction" [13]. When smallholders perpetuate their existence through children's unpaid labor substitution, physiologically compressed 16-hour workdays, and self-deprivation of social security, they essentially transfer the full labor reproduction cost (RCL)-which should be borne by capital in capitalist production-to internal family self-exploitation. This cost transfer results in smallholders' non-monetary labor inputs systematically undervaluing agricultural products, creating a false "competitive advantage" in the market. Capitalist farms, constrained by the iron law of market wages and institutionalized social security, inevitably include RCL costs that increase with rising civilization standards. When smallholders compress RCL to

physiological limits through self-exploitation, the full RCL paid by capitalist farms manifests as a "disadvantage in efficiency" a pseudo-disadvantage that essentially represents institutionalized hidden exploitation by capital. During the financial capitalism phase, this mechanism evolved into a double deprivation: smallholders fall into high-interest debt dependency to cover social costs like healthcare and education, while capital extracts substantial profits through financial instruments. China's "part-time work and farming" model partially breaks this chain, the key lies in the construction of de-commodification reproduction shelter based on the social security function of land and intergenerational division of labor.

After the 1970s, Western academia embarked on a renewed exploration of Kautsky's ideas on agricultural modernization. Bernstein identified Kautsky as the "founder of agricultural political economy"[14], whose theory of capital penetration foresaw a new form of domination formed by multinational corporations through seed patents and supply chain control. However, so far, mainstream research still has two major blind spots: first, it neglects Kautsky's discourse on the organic cycle between urban and rural areas, where he viewed cities as markets for rural industrial products and rural areas as reservoirs of urban labor. This symbiotic relationship offers insights into understanding China's new urbanization; second, it downplays his critique of technological alienation. Kautsky warned a century ago that the abuse of chemical fertilizers would disrupt the "balance of soil nutrient metabolism" [15], which can be regarded as a precursor to ecological Marxism.

### 3.3. Theoretical Reflection of Contemporary Crisis

The practical vitality of Kautsky's theory was validated in the multiple agricultural crises of the 21st century. During the global food crisis, international capital speculation in futures markets caused grain prices to soar by 30%, while large U.S. meat processors leveraged their monopoly to suppress hog purchase prices while simultaneously raising retail prices, fully corroborating Kautsky's assertion about "the expropriatory accumulation of commercial capital" [16]. For China, Kautsky's warnings are even more urgent: the encroachment on farmland during the wave of capital flowing into rural areas, yet leaving it idle and abandoned, and the weak position of small farmers in the industrial chain, echo Kautsky's prophetic structural analysis of "the separation of land ownership and production functions" and "the imbalance of power between production and circulation." These phenomena compel us to revisit Kautsky's core proposition: how to prevent agricultural modernization from becoming a tool for capital to seize surplus value?

### 3.4. The Significance of Methodological Enlightenment

Kautsky's unique contribution lies in his historical-structural analysis method. Unlike Chayanov's static description of the internal circulation of the small peasant economy, Kautsky examines agriculture within the dynamic process of capitalist global expansion, revealing how external capital reshapes agricultural production relations. This approach offers insights into breaking through the fragmentation of current agricultural research: examining how the logic of capital permeates policies, technologies, and markets from a "holistic perspective." This systematic thinking is an indispensable theoretical tool for resolving the modernization dilemma of China's "major country with small peasants." In the deepening stage of the rural revitalization strategy, Kautsky's ideas on agricultural modernization are like a dormant volcano, its accumulated theoretical energy illuminating historical detours-such as the "soybean monoculture" trap formed under capital dominance in Latin American countries-and warning future shoals-such as the potential "digital divide" exacerbated in the development of digital agriculture. Reinterpreting "The Land Question" aims to provide a scientific methodology for agricultural modernization in developing countries amidst the wave of globalization, which is precisely Kautsky's most precious legacy for the 21st century.

## 4. The Enlightenment of Kautsky's Agricultural Modernization Thought to the Contemporary Practice of China's Agricultural Modernization

Kautsky's thoughts on agricultural modernization are like a prism, reflecting both the structural traps of capitalist agriculture and the unique possibilities of China's agricultural modernization path. When China faces the century-old proposition of "a large country with small farmers," Kautsky's profound analysis of capital logic, technological alienation, and urban-rural relations provides a critical coordinate system for resolving developmental dilemmas.

### 4.1. Institutional Innovation of Transcending the "Scale Myth"

The "paradox of scale efficiency and smallholder resilience" revealed by Kautsky was elevated to an institutionalized dialectical unity in China's practice. Its core breakthrough lies in establishing a flexible unified structure. On the dimension of collective integration of land factors, it achieves the internalization of economies of scale, forming a market bargaining fortress against capital intermediaries; on the dimension of property rights systems, it upholds the ultimate decision-making authority of family operations, constructing an ontological survival barrier. This structure completes historical reconciliation through a three-level value circulation mechanism-primary distribution dominated by labor value acknowledges the subjectivity of production, secondary distribution with quantified land contributions ensures factor justice, and tertiary distribution with socialized risk sharing fortifies developmental resilience, ultimately deconstructing the capital delusion of "scale supremacy" and achieving the symbiotic evolution of efficiency logic and humanistic logic.

### 4.2. Regulatory Ethics of Capital Re-structure to the Countryside

In response to Kautsky's warning of the "triple infiltration" risks of capital-namely, spatial encroachment, value extraction, and financial alienation-China has constructed a gradient disciplinary system in the process of agricultural modernization to break the erosion of capital on the value of agricultural production. The 1.8 billion mu (approximately 120 million hectares) red line for arable land establishes a physical defensive boundary, constraining capital expansion within ecological thresholds. The "chain feedback" mechanism forcibly directs part of the surplus value back to small farmers, transforming capital appreciation into developmental momentum. The functional stratification of land contract rights and management rights (social security attributes/production factor attributes) cuts off the path of securitization deprivation through the prohibition of management rights mortgages. The essence of this system is an innovation in negative feedback regulation-acknowledging capital's catalytic role in modern agriculture while preventing its inherent dispositional effects through a legal framework, thereby forming a dynamic balance of "efficiency absorption and social protection."

### 4.3. Establishing the Mechanism of Urban-Rural Integration in New Urbanization

The Third Plenary Session of the 20th CPC Central Committee proposed establishing institutional mechanisms for integrated urban-rural development, providing institutional safeguards to resolve the urban-rural dual structure. The public service points system quantifies labor value into civilization empowerment coefficients, breaking the identity lock of household registration on development rights. The ecological ticket system creates tradable ecosystem service credits, transforming rural areas from resource providers into ecological partners. Infrastructure allocation follows spatial justice principles rather than economic density, converting technological access rights from privileges to human rights. These three-dimensional innovations collectively drive the transformation of urban-rural relations from a "center-periphery" extraction model to an "ecology-technology-civilization" symbiotic

paradigm, completing a contemporary institutional response to Kautsky's critique of the "urban-rural dependency structure."

## 5. Conclusion

Kautsky's thoughts on agricultural modernization are like a "theoretical scalpel," not only dissecting the ailments in the process of capitalist agricultural modernization but also providing a warning coordinate for late-developing countries to avoid development traps. In the new context of capital globalization, climate change, and the convergence of digital technologies, his ultimate inquiry into the "balance between productivity progress and social justice" remains the core proposition for China to explore the path of agricultural and rural modernization. Revisiting Kautsky's "The Land Question" is essentially a renewed enlightenment on the ethics of agricultural modernization development.

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