FROM CERTIFICATION TO POLICY COHERENCE : INTEGRATING INVESTMENT, LAND, ENVIRONMENTAL, TAX, AND CUSTOMS MECHANISMS FOR ORGANIC PRODUCTION IN KAZAKHSTAN

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Abstract - Kazakhstan's 2024 reform substantially strengthened the legal recognition and verification of organic production, but the economic consequences of that status remain dispersed across investment, land, environmental, tax, and customs law. This article examines whether those adjacent regimes operate as a coherent policy system across the organic production lifecycle. The study combines doctrinal legal analysis, functional comparison, and structured qualitative coding of legislation and policy instruments in force as of September 2026. To make cross-sectoral gaps visible, it applies a five-dimension Cross-Code Functional Integration Index (CFII): explicit recognition of organic status, existence of a dedicated operational instrument, lifecycle alignment, use of verified status as a legal trigger, and digital interoperability. The score is used as a diagnostic device rather than as a measure of institutional quality. The results show a pronounced imbalance. Organic/agricultural support is comparatively well integrated through the producer register and certification-cost subsidy, whereas investment, land, environmental, and tax regimes largely operate in parallel; customs/trade has stronger digital potential but no systematic organic-status interface. Comparison with the European Union and Japan indicates that effective organic policy is built through a portfolio of stage-specific measures rather than through certification support alone. The article proposes an evidence-bridge architecture in which verified organic data can be reused, for defined purposes, by other public authorities while substantive decisions remain within the relevant sectoral laws. Policy implications include an organic-transition investment window, plot-linked status data, results-based agro-environmental support, temporary treatment of documented transition costs, and electronic certificate verification for customs and export procedures, all subject to fiscal, environmental, competition, data-governance, and trade safeguards.

Keywords - Organic Production; Policy Coherence; Investment Law; Land Law; Environmental Regulation; Taxation; Customs; Kazakhstan; Regulatory Integration; Sustainable Agriculture.

I. INTRODUCTION

Organic agriculture sits at the intersection of food regulation, environmental governance, rural investment, land management, taxation, and international trade. Certification is necessary, but it does not by itself make conversion economically or administratively workable. During the transition period, producers change production practices before they can fully capture an organic price premium; they may need dedicated storage, segregation, monitoring, or processing capacity; the certification history of a production unit can matter to land-use decisions; environmental and tax rules may or may not recognize transition costs; and exporters must turn a domestic certificate into evidence that border authorities and destination markets can verify. These connections make organic production a useful test of policy coherence across legal sectors.

The market context increases the importance of that question. The 2026 edition of The World of Organic Agriculture reports global retail sales of about EUR 145 billion in 2024 and almost 99 million hectares under organic management. Kazakhstan accounted for roughly 0.3 million hectares and ranked third in Asia after India and China (Willer, Schlatter, & Travnicek, 2026). At the same time, Kazakhstan's agro-industrial exports reached USD 7 billion in 2025, including USD 3.6 billion in processed products, according to the Ministry of Agriculture (2026). Organic production is therefore relevant not only to environmental policy but also to rural investment, higher-value processing, and export diversification.

Law No. 89-VIII of 10 June 2024 changed the national legal foundation. It regulates the transition period, conformity assessment, labelling, producer associations, and the producer register, and it provides a basis for state support. Article 8 expressly refers to the subsidization of part of the cost of confirming conformity. The 2024 production and circulation rules add operational requirements for transition and production, the subsidy rules provide a digital procedure for partial reimbursement of conformity-assessment costs, and the 2025 register rules strengthen the information base. These measures move the system beyond simple recognition of an organic label and toward an administrative infrastructure for verified status.

The reform also exposes a second-generation problem. Organic status is established within a specialized legal framework, but an organic enterprise remains simultaneously an investor, land user, environmental operator, taxpayer, and potential exporter. Those roles are governed by separate codes and implementing rules. A producer may therefore have a verified status in the organic register while

that status has no defined evidentiary effect in an investment application, a land-information system, an environmental payment, a tax procedure, or a customs check. The state can know the fact in one system yet ask the producer to prove it again in another.

The economics of conversion make this fragmentation particularly important. Organic producers may face additional labour, advisory, monitoring, record-keeping, segregation, soil-management, storage, and processing costs before certification yields its full market value. Crowder and Reganold (2015) found that organic systems were more profitable when price premiums were included, while profitability weakened without those premiums. More recent work similarly stresses that conversion is not supported effectively by a single instrument. Möhring, Muller, and Schaub (2024), synthesizing 120 studies and 183 policy recommendations, emphasize combinations of policy, knowledge, infrastructure, cooperation, transaction-cost reduction, and market development. Hirsch et al. (2026) further show that the years around and after conversion can remain economically vulnerable in the EU dairy sector. Policy coherence provides an appropriate analytical lens because it asks whether instruments administered under different mandates reinforce or frustrate one another. OECD work on agriculture and food policy warns that fragmented mandates and inconsistent instrument mixes can weaken both productivity and sustainability outcomes (OECD, 2019, 2021). In the organic sector, certification already creates verified information about operators, production units, practices, and compliance status. Requiring separate proof of the same fact raises transaction costs. Yet the opposite solution - allowing organic status to automatically override environmental, tax, land, or customs safeguards - would also be poor legal design. Coherence therefore requires selective integration: data and eligibility rules should connect where functions overlap, while each sector retains its independent substantive purpose.

Research on Kazakhstan has addressed important parts of this landscape, including customs and export issues and the role of digital certification and traceability (Kassenova, Kozhahmetova, & Kazhimuratova, 2025; Wang & Nyssanbekova, 2026). What is less developed is a cross-sectoral account of how investment, land, environmental, tax, and customs regimes interact with the legal status created by organic law. Examining each code separately can identify relevant provisions, but it does not show whether they form a usable pathway from transition to investment, production, certification, and market access. The article therefore addresses three questions. RQ1 asks how far verified organic status is operationally connected to Kazakhstan's investment, land, environmental, tax, and customs regimes. RQ2 identifies where the producer lifecycle is interrupted by duplicated evidence, timing mismatches, or uncertain eligibility. RQ3 asks which coordinated reforms could close those gaps without weakening fiscal discipline, environmental duties, competition safeguards, or Kazakhstan's international trade obligations.

The contribution is methodological as well as substantive. First, the CFII converts the broad idea of policy coherence into a transparent diagnostic matrix without claiming to measure overall legal quality. Second, the unit of analysis is the producer lifecycle rather than the individual code. Third, the article develops an evidence-bridge model in which a limited set of verified organic data can be reused across government, while each sectoral regime continues to decide the legal consequence of that information. This avoids both extremes: creating an «organic supercode» that intrudes into other branches of law and leaving verified status legally isolated within the organic-products regime.

II. DETAILS EXPERIMENTAL

2.1. Materials and Procedures

The study combines doctrinal legal analysis, functional comparison, and structured qualitative coding. The doctrinal component identifies rights, obligations, eligibility conditions, institutional competences, and legal consequences in legislation and subordinate acts. Functional comparison asks what regulatory tasks must connect if a producer is to move from conventional production through conversion, investment, certification, and, where relevant, export. Coding then records whether adjacent legal regimes merely pursue compatible objectives or actually recognize and reuse verified organic status.

The temporal cut-off is September 2026. National sources were examined through the Adilet legal information system and include Law No. 89-VIII of 10 June 2024; Order No. 385 of 26 November 2024 on production and circulation; the rules on subsidizing conformity-assessment costs, including the 2026 amendments; and Order No. 38 of 7 February 2025 on the producer register. The adjacent corpus includes the legislation on state regulation of the agro-industrial complex, the Entrepreneurial Code, agricultural investment-subsidy rules, the Land Code, the Environmental Code, the 2025 Tax Code effective from 2026, and the Customs Regulation Code. EAEU constraints were considered where customs choices are not purely national. Table 1 summarizes the legal corpus and the function assigned to each source.

Instrument/source	Function examined	Relevance to organic-policy integration
Law of the Republic of Kazakhstan No. 89-VIII (10 June 2024), as amended	Organic status, transition, conformity, labeling, export requirements, state support	Sectoral legal anchor
Order of the Minister of Agriculture No. 385 (26 November 2024)	Production and turnover rules	Operationalizes transition and production requirements
Rules on subsidizing conformity-assessment costs (2024; amended 2026)	Direct organic support	Connects certificate evidence to a digital subsidy service
Order No. 38 (7 February 2025)	Register of organic producers	Authoritative information layer
Law on State Regulation of AIC and Rural Areas	Agricultural support framework	Connects organic development to general agricultural policy
Entrepreneurial Code and investment rules	Investment preferences and project support	General/indirect support; no organic eligibility bridge
Agricultural investment-subsidy rules	Capital-cost reimbursement	Potential vehicle for a conversion investment window
Land Code	Tenure, land protection, soil information	Strong substantive compatibility; weak organic data linkage
Environmental Code	Pollution prevention, resource efficiency, BAT	Compatible objectives; no automatic recognition of organic evidence
Tax Code No. 214-VIII (18 July 2025)	General and agricultural taxation	General agricultural relief; no conversion-specific timing rule
Customs Regulation Code No. 123-VI	Customs procedures and controls	Digitized trade administration; no systematic organic-status interface
Regulation (EU) 2018/848	Organic production and third-country trade	Benchmark for certification-trade interface
Regulation (EU) 2021/2115 and CAP materials	Conversion, maintenance, eco-schemes, investment and advice	Benchmark for policy-mix design
Implementing Regulation (EU) 2021/2307	Organic import documentation	Benchmark for electronic certificate verification
Japan Green Food System Strategy	Long-term organic expansion and food-system transition	Benchmark for cross-stage policy coordination
WTO Agreement on Agriculture, Annex 2	Domestic-support disciplines	Safeguard benchmark for environmental and investment support

Table 1. National and comparative legal corpus and analytical function

Comparative materials were used as functional benchmarks, not as templates. EU Regulation 2018/848 was selected for the connection it creates between organic rules, certification, imports, and third-country recognition. Regulation 2021/2115 and Common Agricultural Policy materials illustrate how conversion and maintenance support can sit alongside investment, eco-schemes, advice, cooperation, and

quality measures. Implementing Regulation 2021/2307 was examined for electronic organic import documentation in TRACES. Japan's Green Food System Strategy provides a contrasting long-term coordination model linking organic expansion to technology and wider food-system reform. Annex 2 of the WTO Agreement on Agriculture was used to test whether proposed environmental and investment measures could be framed around additional costs, structural disadvantages, and public environmental objectives rather than export performance.

2.2. Unit of analysis: the organic production lifecycle

The analysis covers six domains. Organic/agricultural support is the core because it creates organic status, conformity rules, registry infrastructure, and the current certification-cost subsidy. Five adjacent domains were then examined: investment (capital formation and project support); land (tenure, soil information, and continuity of plot history); environment (independent environmental obligations, reuse of evidence, and payments for public environmental outcomes); taxation (treatment of transition-period costs and agricultural tax regimes); and customs/trade (documentary verification, risk management, and recognition in destination markets). A domain was treated as integrated only when the legal or administrative framework created an operational link to organic status or to a specific stage of the lifecycle. Mere substantive compatibility - for example, a soil-protection rule that also benefits organic farming - was coded as alignment rather than integration.

2.3. Cross-Code Functional Integration Index

The CFII uses five dimensions scored from 0 to 2. C1, explicit recognition, asks whether a sector expressly recognizes organic production or verified organic status. C2, dedicated instrument, asks whether an instrument is designed specifically for conversion, organic production, or organic market access rather than for agriculture generally. C3, lifecycle alignment, assesses whether the timing and conditions of an instrument correspond to conversion, certified production, or export. C4, status as a trigger, asks whether a certificate, conversion status, or register entry changes eligibility or avoids re-submission of the same evidence. C5, digital interoperability, asks whether verified organic data can be exchanged and reused by the relevant administrative systems.

The maximum score is 10, but the total is used only as a diagnostic summary. General agricultural measures were not treated as integrated merely because organic producers can apply for them, and electronic application was not equated with interoperability unless organic-status data could be reused across systems. Coding therefore reflects the legal architecture rather than the quality of agency performance. Table 2 reports the sector scores and the underlying dimensions, allowing the reader to see how each total was derived.

A separate gap test was then applied. A coordination gap was recorded only when three conditions coincided: organic law or standards imposed a conversion, certification, traceability, or market-access requirement; another legal sector controlled a resource, incentive, or administrative process materially affecting compliance or viability; and there was no operational rule allowing verified organic status or data to influence the decision in that sector. This test was intended to distinguish a genuine integration problem from the simple absence of preferential treatment.

2.4. Comparative analysis and policy-design criteria

Functional comparison focused on four recurrent problems: support during conversion, remuneration of public environmental goods, reduction of certification and transaction costs, and digital verification in trade. The EU provides a useful reference because its CAP combines organic payments with investment, knowledge, cooperation, and environmental measures, while the EU import regime links certification to border-control documentation. Japan is relevant because its strategy treats organic expansion as part of a wider technological and food-system transition. The purpose of the comparison is to identify design options that can be adapted to Kazakhstan's fiscal structure, land regime, administrative capacity, and EAEU obligations.

Potential reforms were assessed against five safeguards. Legal feasibility asks whether the measure can be fitted into existing competencies without creating conflicting mandates. Fiscal proportionality favours temporary, capped, or results-based support over indefinite status-based preferences. Administrative impact asks whether a reform reduces duplication rather than creating a parallel bureaucracy. Regulatory safeguards require organic status not to displace environmental permits, land obligations, tax controls, or customs powers that serve independent purposes. Trade compatibility asks whether support is linked to documented costs, investment needs, or environmental conditions rather than to production volumes or export performance.

2.5. Robustness and methodological limitations

Ambiguous provisions were coded conservatively. A general agricultural measure could receive recognition for lifecycle relevance without being treated as an organic-specific instrument, and digital public services received a high interoperability score only where organic data were actually connected to another administrative process. A sensitivity check doubled the weight of C4 and C5, the two dimensions

most closely associated with operational integration. The ordering of the domains did not change: organic/agricultural support remained the most integrated, customs/trade retained greater digital potential than the other adjacent domains, and investment, land, environment, and tax remained weakly connected to organic status.

The CFII is based on expert legal coding by the authors; no inter-coder reliability coefficient was calculated. Its transparency therefore depends on disclosed criteria, visible source selection, and conservative scoring. It does not estimate farm profitability, administrative processing time, subsidy uptake, budgetary cost, or the causal effect of conversion. Those questions require producer-level and administrative data and, where feasible, quasi-experimental or econometric designs. The present method is narrower: it identifies where legal pathways across agencies are explicit, partial, or absent and turns those findings into hypotheses for later empirical testing.

III. RESULTS AND DISCUSSION

3.1. Organic/agricultural support forms a comparatively integrated core

The 2024 organic-products law creates a coherent sectoral foundation. It defines organic production and circulation, connects status to national standards, regulates conversion and conformity assessment, establishes the national conformity mark, and requires a producer register. Export production is expressly linked to the requirements of the destination market, confirming that domestic certification and foreign market access are related but legally distinct.

State support is also connected to verified status more directly than in the adjacent legal sectors. Article 8 provides a legal basis for support and expressly includes partial reimbursement of conformity-assessment costs. Under the subsidy rules, applicants submit an electronic copy of the conformity certificate while other registration information can be drawn from state information systems. This is an operational link among legal status, evidence, and a financial consequence rather than a general statement of policy.

The producer register is the second element of that core. Because it is populated with information from conformity-assessment bodies, it can reduce uncertainty for public authorities and market actors about an operator's status. Its present cross-sectoral effect is limited, however. Most adjacent legal regimes do not define when a register entry may be relied upon, which fields are authoritative, or how a change in certification status should affect decisions already made in another system.

On the CFII, organic/agricultural support scores 9/10: full points for explicit recognition, a dedicated instrument, use of status as a trigger, and digital interoperability within the subsidy/register environment, and one point for lifecycle alignment because the main targeted support remains focused on certification costs rather than on the full conversion-to-market sequence. The missing point therefore reflects the scope of integration, not a deficiency in the legal definition of organic status itself.

3.2. Investment policy is relevant but does not recognize conversion as a distinct investment stage

Kazakhstan has broad investment incentives under the Entrepreneurial Code and agricultural investment subsidies that reimburse part of eligible capital expenditure. These instruments can benefit organic producers, but they are designed around investment projects and approved asset categories rather than around organic conversion. Current rules do not treat a verified conversion plan or organic-register status as a distinct eligibility category.

That distinction matters because conversion can require investments whose value is specific to the organic production process: dedicated storage and transport, mechanical weed-control equipment, composting or biological-resource systems, segregation infrastructure, traceability software, soil-restoration measures, specialized cleaning, and processing changes that prevent commingling. Some of these assets may already fit general project passports, but eligibility is not organized around the needs or timing of conversion.

Two types of mismatch follow. Classification is uncertain when an asset essential to organic compliance is assessed only as a generic agricultural investment. Timing is also imperfect because conversion costs are often incurred before certification and before the producer can obtain the full organic premium. The legal framework does not currently use conversion status to bridge either problem.

The investment domain therefore scores 2/10. General investment instruments have lifecycle relevance, but organic production is not explicitly recognized, there is no dedicated conversion instrument, verified organic status is not an eligibility trigger, and organic-register data are not reused in the investment process. The score reflects the strength of the cross-code link, not the overall quality or generosity of Kazakhstan's investment legislation.

3.3. Land law supports soil protection but does not preserve organic-management history as a legal data field

Organic certification is connected to production units and their management history, not only to the legal

identity of the operator. Kazakhstan's Land Code contains strong substantive rules on preventing pollution, degradation, fertility loss, and desertification and permits soil, reclamation, agrochemical, and geobotanical information to be reflected in agricultural land documentation. These objectives are compatible with organic requirements concerning soil fertility and land management.

Compatibility does not amount to integration. Land information does not currently carry a defined field showing that a plot is in conversion, is included in an organic certificate, or has a certification history that may matter to a new operator. When lease rights change, a farm is reorganized, or an investor performs due diligence, organic-management history may therefore have to be reconstructed from certification records rather than from the core information attached to the production unit.

The practical issue is continuity of evidence. Without a plot-level link, an investor may not know whether land has a verified history relevant to conversion, public support may be difficult to follow when operators change, and similar soil-management information may be collected independently by land and certification systems. The gap does not imply that Kazakhstan needs a new category of "organic land" or a new property right; it shows that the same production unit is described differently in separate administrative systems.

The land domain scores 2/10. Soil-protection rules and land-information tools provide substantive alignment, but organic status is not an explicit attribute of land data, no dedicated land instrument is linked to conversion, register status does not trigger a land-law consequence, and operational interoperability with organic records is absent.

3.4. Environmental objectives overlap with organic practice, but verified organic evidence has no systematic cross-use

Kazakhstan's Environmental Code emphasizes prevention and reduction of adverse impacts, resource efficiency, and the use of Best Available Techniques. These principles overlap with several practices associated with organic production, including lower reliance on synthetic inputs, soil-conserving rotations, reuse of organic matter, and preventive approaches to plant health. The overlap is substantive rather than institutional.

Organic certification and environmental regulation verify different legal questions. A conformity certificate should not replace environmental permits, pollution liability, waste obligations, or any other independent duty. At the same time, the systems may collect evidence about the same production unit, resource use, field management, or segregation practices. The current framework does not systematically define when such verified information may be reused for an environmental programme without repeating the underlying documentation.

Nor is there a dedicated results-based environmental payment linked to verified organic practices or outcomes. This distinction is important because the environmental value of organic production varies by practice, crop, and region; certification status alone is an imprecise proxy for every environmental benefit. The legal gap is therefore not the absence of an automatic reward for being organic, but the absence of a structured evidentiary connection between certified practices and independently defined environmental objectives.

The environmental domain scores 2/10. Objectives are strongly aligned, yet organic status is not a direct legal trigger, verified organic evidence is not routinely reused, and no dedicated results-based environmental mechanism is connected to the organic-status infrastructure.

3.5. Tax law supports agriculture generally but does not address the timing of conversion costs

The Tax Code adopted in 2025 and effective from 2026 retains special treatment for qualifying peasant or farm enterprises. Organic producers can benefit when they meet the general conditions, but the legal regime does not treat conversion as a distinct cost period and organic status does not alter the timing of deductions or other tax consequences.

This produces a temporal mismatch. Certification fees, soil analysis, advisory services, additional record keeping, segregation, storage, and production changes may be paid before a producer can market output as fully organic. General agricultural tax relief may reduce the overall burden, but it does not specifically respond to that timing problem. Conversely, a permanent preferential rate based solely on certified status would also be poorly targeted because mature organic businesses no longer face the same conversion costs.

The tax domain therefore scores 2/10. Existing agricultural relief is indirectly relevant, but conversion costs are not treated as a specific legal event, organic status does not trigger a targeted fiscal rule, and the tax system does not use the producer register to verify eligibility for any conversion-related measure.

3.6. Customs and trade reveal the strongest need for documentary interoperability

Organic status generally does not alter tariff classification, and a special customs code for organic goods would sit uneasily with the EAEU common tariff system. The relevant problem is documentary: whether border officials, importers, or destination-

market control bodies can verify organic status in a reliable, standardized, and timely way.

The organic-products law already connects exports to the standards of the importing country and permits recognition of foreign conformity documents under Kazakhstan's legislation. This provides a legal bridge to trade, but the bridge is not fully integrated into customs workflows. An exporter may still need to present customs documents, a domestic organic certificate, a destination-market certificate, and sanitary or phytosanitary documents that describe overlapping facts with different identifiers. The resulting duplication raises the risk of inconsistent product descriptions and manual verification.

The EU import regime illustrates a functional alternative. Regulation 2018/848 and Implementing Regulation 2021/2307 connect organic import evidence to a structured electronic environment through the certificate of inspection and TRACES. The relevant lesson is not institutional copying but standardized verification: organic conformity becomes a defined data element within border procedures rather than an informal attachment. Japan's equivalence arrangements point to a related solution on the recognition side by reducing redundant certification where systems can demonstrate comparable assurance.

Customs/trade scores 3/10, slightly above the other adjacent domains. Organic law expressly recognizes destination-market requirements and customs administration is already highly digitized, but organic status does not yet function as an operational trigger in border procedures and certificate data are not systematically connected to customs systems. The stronger score therefore reflects digital potential and an existing legal bridge, not completed integration.

3.7. Cross-sectoral assessment: the integration gap is concentrated in status triggers and data reuse

The CFII pattern is pronounced. Organic/agricultural support scores 9/10, customs/trade 3/10, and investment, land, environment, and tax 2/10 each. The average for the five adjacent domains is 2.2/10, producing a 6.8-point gap from the core sector. This difference should not be read as a welfare ranking. It shows where legal recognition has administrative consequences and where it remains isolated.

The weakest dimensions are C4 and C5: use of organic status as a trigger and digital interoperability. Kazakhstan does not lack investment law, land administration, environmental regulation, tax rules, or customs infrastructure. The missing element is usually narrower - an explicit rule allowing a fact already verified under organic law to be relied upon for a defined purpose elsewhere. That diagnosis also explains why creating several new stand-alone subsidies would not necessarily improve coherence. The higher-value intervention is a shared evidentiary layer combined with limited, sector-specific legal consequences.

The sensitivity check confirms that conclusion. Doubling the weight of the two operational dimensions does not change the relative picture: the sectoral core remains clearly ahead, customs/trade retains greater potential for integration, and the other four domains remain weakly connected to verified organic status. Figure 2 visualizes the baseline scores.

3.8. Synthesis: an evidence bridge is preferable to an "organic supercode"

The legal analysis does not support moving investment, land, environmental, tax, and customs rules into the organic-products law. Such consolidation would duplicate concepts and make later amendment more difficult. A more coherent architecture separates the creation of status from the legal consequences attached to it. Organic law and technical standards should continue to determine who is in conversion, who is certified, which production units are covered, which conformity-assessment body is responsible, and whether a certificate is valid.

What is missing is a limited mechanism for other authorities to verify those facts. The proposed Digital Organic Production Profile (DOPP) is therefore conceived as an evidentiary layer rather than as a new licensing system. It would expose only legally authorized fields - for example, producer identifier, production-unit or plot identifier, conversion start date, certificate status and validity, product category, and conformity-assessment body. Investment, land, environmental, tax, and customs authorities would continue to apply their own substantive law; the profile would simply prevent the same verified fact from being re-created in separate files.

This approach follows a "provide once" principle with purpose limitation. An operator should not repeatedly submit the same certificate to multiple agencies, but interoperability should not become unrestricted data sharing. The architecture therefore requires role-based access, audit logs, clear source-of-truth rules, correction procedures, and retention periods. The point of integration is to reduce redundant proof while preserving the legal autonomy and safeguards of each sector.

Table 2. Cross-Code Functional Integration Index (CFII)

Domain	C1 Explicit recognition	C2 Dedicated instrument	C3 Lifecycle alignment	C4 Organic status as trigger	C5 Digital interoperability	Total /10
Organic/agricultural support	2	2	1	2	2	**9**
Investment	0	0	1	0	1	**2**
Land	0	0	1	0	1	**2**
Environment	0	0	1	0	1	**2**
Tax	0	0	1	0	1	**2**
Customs/trade	1	0	1	0	1	**3**

Note. For C5, a score of 1 denotes generic digital administration with no operational organic-data interface; 2 denotes direct reuse of verified organic data.

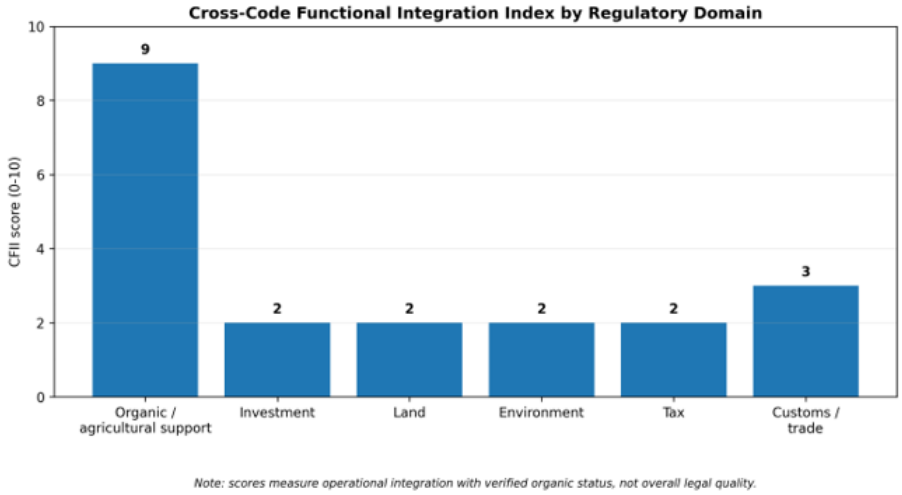
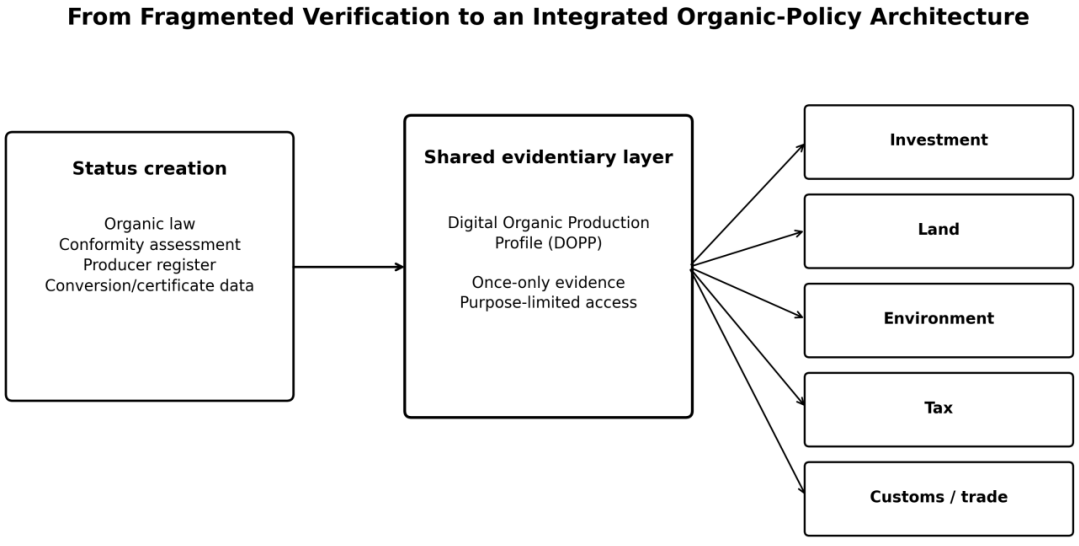


Figure 2. Cross-Code Functional Integration Index by regulatory domain. Author coding based on legislation in force as of September 2026. The scale ranges from 0 (no operational integration) to 10 (explicit, lifecycle-aligned and digitally interoperable integration). Scores measure connectivity, not the intrinsic quality of each code.



Source: author design based on the legal analysis in this study.

IV. DISCUSSION

4.1. From first-generation organic regulation to horizontal policy coherence

Kazakhstan has completed much of the first-generation legal work associated with organic regulation: the product category is defined, production and conformity requirements exist, the claim is protected, a producer register operates, and a specific form of state support is available. The harder problem is now horizontal. Can several public authorities rely consistently on the same verified status without collapsing their different mandates into one another?

This question shows why interoperability is a legal issue before it is an IT issue. A technical connection is not enough unless the law identifies the authoritative record, the authority entitled to rely on it, the effect of a suspension or revocation, the time allowed for downstream systems to update, and the procedure for correcting an error. Well-designed data exchange can lower transaction costs and improve targeting; poorly governed exchange can spread a single mistake across several administrative decisions. The evidence-bridge model therefore treats data governance as part of policy coherence rather than as a separate digitalization project.

4.2. Transition support should be temporary, targeted, and connected to identifiable costs

The literature does not justify permanent preferential treatment for every certified organic operator. Organic systems can generate environmental benefits and, in some markets, higher profitability, but results vary by crop, labour intensity, region, and market maturity. Crowder and Reganold (2015) show the importance of price premiums, while Meemken and Qaim (2018) emphasize variation across contexts. Hirsch et al. (2026) further indicate that commercial vulnerability can persist around the conversion period even where average organic profitability is favourable.

The stronger policy rationale is therefore transitional. A producer may bear additional costs before full organic market value is available. Public intervention can be directed at that timing gap through conversion-related investment support, temporary tax treatment, advice, credit instruments, or other bounded measures. Once conversion is complete, continuing support should require an independent justification - such as a verified environmental public good or a demonstrated market failure - rather than the organic label alone. This approach is fiscally narrower and avoids turning certification into a permanent entitlement.

4.3. Comparative lessons from the European Union and Japan

The EU illustrates a portfolio approach. Its organic regime is linked to CAP instruments that can support conversion and maintenance alongside eco-schemes, investment, advice, cooperation, and quality schemes. European Commission materials for the 2023-2027 CAP report substantial planned expenditure on organic farming, including approximately EUR 14.7 billion for organic-specific payments across member states. The lesson for Kazakhstan is not the scale of European spending but the stage-specific mix: certification costs are only one part of the economic pathway into a functioning organic market.

Table 3. Functional comparison of selected policy-integration mechanisms

Policy function	Kazakhstan, September 2026	European Union benchmark	Japan benchmark	Design implication for Kazakhstan
Conversion support	Subsidy for part of conformity-assessment cost; general farm/investment support may apply	Organic conversion and maintenance can be supported through CAP interventions alongside eco-schemes and investment measures	Organic expansion embedded in Green Food System Strategy and environmental/innovation policy	Broaden from certification cost to a capped conversion package
Environmental public goods	General environmental and agricultural rules; no organic-linked result payment	Eco-schemes and rural-development instruments can reward environmental practices including organic farming	Strategy links organic expansion with pesticide/fertilizer reduction and sustainability targets	Pay for verified additional outcomes, not label alone
Certification transaction costs	Dedicated cost subsidy and producer register	Group certification options and structured control system; risk/data orientation	Organic JAS system and equivalence efforts reduce market-friction in selected trade relationships	Use group/collective mechanisms and one-time evidence submission
Digital trade verification	Customs and organic certification remain institutionally separate	Certificates of inspection integrated with TRACES for organic imports	Export equivalence arrangements illustrate recognition strategy	Link organic certificate identifiers to Single Window/customs systems
Long-term policy coordination	Organic law and AIC policy recognize sector development; cross-code targets limited	CAP, Organic Action Plan and Green Deal provide multi-instrument context	2050 target of 25% organic cultivated land within a whole-food-system strategy	Adopt measurable interagency targets and staged implementation

Japan offers a different but complementary lesson. The Green Food System Strategy sets a long-term objective of organic farming on 25 percent of cultivated land, about 1 million hectares, by 2050, while also addressing pesticide and fertilizer risk and innovation across procurement, production, processing, distribution, and consumption. Organic policy is therefore embedded in a wider food-system transition rather than treated as a stand-alone certification programme. Long-term targets can align research, advisory services, technology, regional initiatives, and market development even when the certification system itself remains separate.

4.4. Trade constraints favour procedural integration over export-linked subsidies

Policy for organic exports must distinguish readiness support from rewards contingent on export performance. Measures that rise with export volume or are available only because a producer exports can

raise trade-law concerns. By contrast, domestic investment aid, general services, certification infrastructure, conversion support, and environmental programmes can be structured around additional costs or public objectives, subject to the conditions of the WTO Agreement on Agriculture.

Annex 2 is particularly relevant because it recognizes certain structural investment assistance and environmental programmes where eligibility and payment conditions limit trade and production distortion. The reform package proposed here therefore avoids per-tonne export subsidies or tax benefits tied to foreign sales. Environmental support is connected to defined practices or outcomes; investment support is connected to conversion-related assets; customs reform concerns information and recognition rather than tariff preferences. This is both more targeted economically and more defensible legally.

EAEU membership reinforces the same conclusion for customs policy. Kazakhstan cannot unilaterally redesign the common tariff classification as a national organic-development tool. The realistic national levers are procedural: electronic certificate verification, risk-based control, compatible data identifiers, and, where possible, bilateral or multilateral recognition of assurance systems.

4.5. Implementation risks and safeguards

Integration creates its own risks. The first is double support. The same equipment cost could theoretically attract an investment subsidy, a tax benefit, and an environmental payment. A shared record of public support should therefore identify which cost has been reimbursed and the public share already financed. Sectoral rules can then set co-financing limits and prevent the same expenditure from being supported beyond the intended level.

The second risk is propagation of bad data. If several systems rely on one record, an incorrect certificate status or plot identifier can affect multiple decisions. The architecture therefore needs a hierarchy of authoritative sources, timestamped updates, operator access to the master record, a rapid correction process, and rules governing the use of disputed data while a correction is pending. These are legal due-process safeguards, not merely technical features.

The third risk is exclusion of small producers. Individual certification and sophisticated digital procedures can impose fixed costs that are harder for small farms to absorb. Kazakhstan's recognition of producer associations, PGS, and group mechanisms provides tools for addressing that problem where they are legally appropriate. Shared advisory services, group applications, and cooperative investment in storage or processing can reduce fixed costs, while export markets that require accredited third-party certification can retain that higher evidentiary threshold.

4.6. Policy implications and implementation sequence

The findings point to a package of targeted amendments rather than a new bureaucracy. Tables 4 and 5 summarize the instruments and sequencing. The common design principle is to reuse verified evidence where it has legal relevance, while leaving substantive investment, land, environmental, tax, and customs decisions within the competent regime.

Table 4. Proposed economic-legal reform package

Mechanism	Legal/administrative change	Eligibility evidence	Safeguard	Expected effect
Digital profile	Establish DOPP generated from producer register and conformity data	Authoritative organic-status record	Purpose limitation, audit logs, correction procedure	One-time evidence submission and interagency verification
Investment	Add organic conversion window to existing AIC/investment support	Verified conversion plan and asset list	Caps, anti-duplication, tenure check	Lower capital barrier during conversion
Land	Add informational parcel notation linked to conversion/certification history	Parcel ID + organic profile	No new property right or transfer restriction	Better due diligence and continuity
Environment	Pilot result/condition-based Agri-environment payments	Organic evidence plus additional environmental conditions	No substitution for permits; WTO-consistent cost/income-loss limits	Reward measurable public environmental benefits
Tax	Temporary accelerated deduction or capped credit for conversion expenditure	Verified transition dates + documented eligible costs	Sunset clause, anti-duplication, fiscal cap	Improve timing of cash flow without permanent privilege
Customs/trade	Add structured organic status/certificate fields to trade systems	Certificate and producer identifiers	Risk-based control retained	Fewer documentary repetitions and faster verification
Recognition	Develop priority-market equivalence/recognition roadmap	Destination-market requirements	Market-by-market legal assessment	Reduced duplicate certification and stronger export readiness

Table 5. Implementation roadmap and evaluation indicators

Stage	Time horizon	Main actions	Core indicators
1. Data and verification	0-12 months	Legal basis for DOPP; registry/subsidy/customs pilot; authoritative-source rules	Documents per application; processing time; % automated verifications; discrepancy rate
2. Conversion economics	12-24 months	Investment window; parcel notation; temporary tax pilot	Uptake; public cost per completed conversion; certification completion; investment volume
3. Environmental and trade scaling	24-36 months	Result-based environmental payments; expand recognition work; scale digital customs verification	Environmental indicators; verification cost; export consignments using digital status; clearance variance

4.6.1. Give the digital organic-production profile a defined legal function

The first priority is an official, purpose-limited verification layer generated from the producer register and conformity-assessment data. The profile should contain only the fields required for inter-agency use: business identifier, producer status, production-unit or plot identifier, conversion start date, certificate status and validity, product category, and conformity-assessment body. Legislation or implementing rules should identify the authoritative source for each field, update deadlines, access rights, correction procedures, and the legal effect of a suspension or revocation. The profile should verify shared facts, not decide eligibility on behalf of another agency.

4.6.2. Create an organic-transition window within existing investment support

Rather than establish a new investment authority, existing agricultural investment schemes could recognize a conversion-specific window. Eligibility would be tied to a verified conversion plan or appropriate organic status and to assets directly connected to compliance, segregation, traceability, soil management, or certified processing. Possible categories include mechanical weed-control equipment, composting systems, dedicated storage, cleaning and segregation equipment, traceability software, low-contamination processing lines, and monitoring equipment. Existing reimbursement ceilings and project-control rules can remain in place; the reform changes the eligibility logic, not the entire investment regime.

4.6.3. Preserve plot-level organic history without creating a new property category

Land information should be able to reference a verified conversion or certification record for a production unit, including relevant dates and the responsible conformity-assessment body. The marker should be evidentiary only. It should neither encumber ownership or lease rights nor guarantee future certification. Its value is to preserve management continuity, support due diligence, and allow other programmes to verify that support is connected to the same production unit over time.

4.6.4. Link environmental support to additional and verifiable outcomes

Organic certification should not replace environmental permits or liability rules. It can, however, contribute verified evidence to a separate agro-environmental programme. Pilot payments should therefore be tied to specified practices or outcomes - such as soil cover, anti-erosion measures, crop diversification, reduced use of identified high-risk inputs, buffer zones, water efficiency, or selected soil indicators - and limited to documented additional costs or income foregone where the governing rules require it. Publishing verification costs and environmental results would also allow low-value indicators to be removed over time.

4.6.5. Use temporary tax treatment for documented conversion costs

A conversion-related tax measure should address timing rather than confer a permanent status preference. Options include accelerated deduction, limited carry-forward, or a capped credit for narrowly defined and documented costs incurred during an approved conversion period. Eligible expenditure might include unreimbursed conformity-assessment fees, approved advisory services, soil analysis, conversion record systems, and segregation measures not already financed through an investment subsidy. Anti-duplication rules and a sunset or mandatory review after three to five years would protect fiscal discipline.

4.6.6. Integrate organic certificate verification into customs and export procedures

Customs reform should focus on information. Electronic declarations could include a structured organic-status field linked to a unique certificate or producer-register identifier. Where a destination market requires an additional certificate, the system could store its reference and verification status rather than requiring the producer's core information to be entered again. Risk-management tools would remain fully applicable. In parallel, Kazakhstan should map the legal route to recognition in priority markets - equivalence, recognized control bodies, importer certification, or other mechanisms - and concentrate technical negotiations where redundant conformity assessment can realistically be reduced.

4.6.7. Phase the reform and measure administrative effects

A three-stage sequence is preferable. During the first 12 months, government should define the data model, source-of-truth rules, inter-agency verification authority, and a pilot connection among the producer register, subsidy service, and a customs environment. Months 12-24 should test the investment window, plot-level information link, and a temporary tax pilot in selected regions or producer groups. Months 24-36 should add results-based environmental payments, expand successful data connections, and intensify recognition work in priority export markets. Each stage should report processing time, documentation burden, uptake, correction events, certification completion, budgetary cost, and relevant environmental or trade indicators.

V. CONCLUSIONS

Kazakhstan's 2024 reform created a credible sectoral foundation for organic production: conversion, conformity assessment, labelling, producer registration, export requirements, and certification-cost support are now legally recognizable parts of one system. The next challenge is not to invent organic status again, but to make that verified status usable where it legitimately matters in other branches of law.

The CFII makes the asymmetry visible. Organic/agricultural support is strongly connected to status, while investment, land, environmental, and tax regimes largely operate in parallel; customs/trade contains an important legal and digital bridge but has not yet integrated certificate data into routine border procedures. The weakness is concentrated in two functions - using verified status as a trigger and reusing authoritative data - rather than in the absence of general economic institutions.

For that reason, the article rejects both an "organic supercode" and a proliferation of unrelated preferences. A better approach is an evidence bridge: organic law remains responsible for creating and updating status, while other regimes determine the limited legal consequence that status may have. Within that architecture, conversion-related investment support, plot-linked records, results-based environmental payments, temporary treatment of documented transition costs, and electronic customs verification can be introduced without displacing environmental duties, tax control, land law, competition rules, or EAEU and WTO constraints.

The broader policy implication is that coherence should be judged along the producer lifecycle. A reform is valuable when it removes duplicated proof, matches support to the stage at which costs arise, preserves independent safeguards, and creates data that can later be evaluated empirically. Pilot implementation would allow the proposed mechanisms to be tested against administrative burden, certification completion, fiscal cost, environmental performance, and export processing. In that form, policy coherence becomes a measurable governance problem rather than a general aspiration.

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