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THE IMPLEMENTATION AND OUTCOMES OF AGRARIAN REFORMS IN NAVOI REGION DURING THE YEARS OF UZBEKISTAN'S INDEPENDENCE (1991–2021)

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Abstract: The article analyses the stages, mechanisms and outcomes of agrarian reforms in Navoi Region during the first thirty years of Uzbekistan's independence (1991–2021). Methods. Institutional, historical, comparative and source-critical approaches were applied to the scholarly literature, legislative acts and official statistical publications, which were cross-checked against one another. Results. The reforms proceeded gradually, with state ownership of land retained: collective and state farms were transformed first into shirkat (cooperative) farms and then into private farm enterprises, while the state order for cotton and wheat continued to restrict producers' autonomy until the late 2010s. The abolition of the state order, the introduction of the cluster system and the Agriculture Development Strategy in 2017–2021 accelerated the transition to market mechanisms and brought significant changes in crop diversification, the elimination of forced labour and water saving. At the same time, salinization, water scarcity and problems of rural employment and income have not been fully resolved. Conclusion. Agrarian reforms in Navoi Region fundamentally changed institutional forms, but their economic effect was conditioned by the sequencing of reforms, the persistence of state control and natural-resource constraints.

Keywords: Navoi Region, agrarian reforms, farm enterprises, shirkat farms, state order, cotton-textile clusters, crop diversification, irrigated agriculture, 1991–2021.

INTRODUCTION

After gaining independence, Uzbekistan faced the task of moving from a centrally planned economy to market relations, and one of the most complex areas of this task was the reform of the agrarian sector. In the Soviet period the republic's agriculture had been subordinated to cotton monoculture, land, water and labour resources were allocated according to the central plan, and collective and state farms were the main organizational form of production [10, p. 211; 14, p. 427]. For the transition period, Uzbekistan chose the "Uzbek model": the primacy of the economy over politics, the state as the main reformer, the rule of law, a strong social policy and the gradual, step-by-step character of reforms were put forward as its main principles [6, p. 12; 11, p. 45]. In the agrarian sphere this approach was expressed in the retention of state ownership of land, the continuation of the state order for cotton and grain, and the gradual implementation of reforms [7, p. 8; 15, p. 15].

Navoi Region is an important area for studying this process. Established in 1982, the region has, alongside the irrigated farming districts of the Zarafshan valley and its surroundings (Karmana, Navbahor, Khatirchi, Nurata, Konimex, Qiziltepa and Tomdi), a large mining-metallurgical, chemical and energy complex in the Kyzylkum. In the region's desert and semi-desert areas karakul sheep breeding and livestock raising have traditional importance, while irrigated land is allocated mainly to cotton, grain, vegetables, melons and horticultural crops. For this reason, agrarian reforms in the region developed in interaction with the food demand of the industrial cities, the industrial sector's need for water and labour, and the social situation of the rural population [10, p. 330; 19, p. 120].

The scholarly literature on the subject can be divided into several strands. The first compares land reform and the formation of farm enterprises in post-Soviet countries: the volume edited by S. Wegren

[15, p. 5] and the study by Z. Lerman, C. Csaki and G. Feder [8, p. 33] have shown the general regularities of this process. The second is devoted to the specific features of agrarian reforms in Uzbekistan: Z. Lerman assessed the economic effects of the reforms [7, p. 14], G. Veldwisch and M. Spoor analysed the competition for resources among new agrarian forms [14, p. 430], N. Djanibekov and co-authors identified barriers in farm restructuring and land consolidation [2, p. 1105], and M. Spoor examined the political economy of rural livelihoods in transition [13, p. 72]. The third focuses on the cotton sector, water management and crop diversification: R. Pomfret analysed the evolution of the Central Asian economies since independence [11, p. 90], I. Bobojonov and co-authors the options and constraints for diversification [1, p. 790], I. Rudenko and co-authors the water-related economic efficiency of cotton production [12, p. 145], and D. Kandiyoti the changes in rural livelihoods and social networks [5, p. 565]. The fourth strand deals with labour conditions and environmental consequences: the International Labour Organization monitored the decline of forced and child labour during the cotton harvest [4, p. 10], while M. Glantz and co-authors and I. Zonn and co-authors described long-term environmental problems of the Aral Sea basin [3, p. 24; 16, p. 140].

However, most of these studies focus on the republican or Central Asian level; the three decades of reforms in 1991–2021 have not been analysed comprehensively and systematically at the regional level, especially for Navoi Region, where the industrial-mining and agrarian sectors exist side by side. This research gap determines the relevance of the present study. The aim of the study is to identify the stages, mechanisms and outcomes of agrarian reforms in Navoi Region and to assess their socio-economic and environmental consequences. To achieve this aim, the article successively analyses the initial conditions of the reforms, changes in ownership and organizational forms, the effect of the state order system, the use of water and land resources, crop diversification, the introduction of the cluster system, changes in employment and income, and environmental consequences. The research hypothesis is that although agrarian reforms in Navoi Region fundamentally changed organizational forms, their economic effect was limited by state control and resource constraints until the abolition of the state order and the expansion of market mechanisms in 2017–2021.

The article follows the IMRAD structure: after the introduction, the materials and methods are described, followed by the results and their discussion, and the conclusion summarizes the main findings and practical recommendations. References are given in square brackets in the form [source number, p. page], and the list of sources is numbered alphabetically.

MATERIALS AND METHODS

The study is based on three groups of sources. The first consists of foreign and local scholarly monographs and articles on agrarian reforms, the cotton sector, water management and crop diversification in post-Soviet Uzbekistan [2; 7; 1; 12; 14]. The second comprises legislative acts regulating agriculture and land relations, including the Land Code and the laws on farm enterprises, dehkan farms and agricultural cooperatives (shirkat farms) adopted in 1998 [17, p. 1], and the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020–2030 approved in 2019 [18, p. 1]. The third group consists of official statistical publications and monitoring reports of international organizations [19, p. 85; 4, p. 10]. It should be emphasized that the study relies on the systematic analysis and cross-comparison of published scholarly literature, legislative acts and official statistical publications; work with regional archives and field research (surveys and interviews with farms) is identified in the discussion as a promising direction for future research.

The theoretical and conceptual basis of the analysis consists of three approaches. The first is the institutional approach, according to which the outcomes of agrarian reforms are explained through changes in property rights, governance mechanisms and the incentive system [8, p. 33; 13, p. 72]. The second is transition economics, which studies how the sequencing and speed of reforms and the role of the state affect transition outcomes [11, p. 90; 7, p. 14]. The third is the social-ecological systems

approach, which treats the interrelations among irrigation, soil, water and population as a single system [3, p. 24; 12, p. 145].

Methodologically, the study used historical-chronological, institutional, comparative and source-critical methods. The historical-chronological method made it possible to divide the period 1991–2021 into four stages: 1991–1997, the initial stage of reforms and the policy of grain independence; 1998–2007, the formation of the legal framework and the transformation of shirkat farms into farm enterprises; 2008–2016, the optimization of farm enterprises and the retention of the state order system; and 2017–2021, the acceleration of the transition to market mechanisms, the cluster system and diversification. The institutional method was used to analyse forms of ownership, the state order, price setting and input supply mechanisms. The comparative method served to compare the features of Navoi Region with general trends at the republican level and with the Soviet period. Source criticism helped to assess the reliability of official data, taking into account the circumstances and political context in which they were produced [7, p. 14; 10, p. 330].

An important methodological limitation of the study is that some region-level quantitative indicators are not fully and consistently covered in open sources, while official statistics for the 1990s and 2000s require caution in analysing data on output and sown areas under the state order [7, p. 20; 14, p. 435]. For this reason, the analysis relied not on absolute figures but on trends, institutional changes and the agreement of several independent sources. Since the study relies only on open sources, there are no ethical constraints related to personal data.

RESULTS

The analysis showed that in 1991 the agrarian sector of Navoi Region entered the independence period having inherited from the Soviet era cotton monoculture, the predominance of collective and state farms, a centralized supply and procurement system, and an ageing irrigation infrastructure [10, p. 211; 12, p. 145]. In rural districts the population was mainly employed on collective and state farms, while household plots were an important source of food and supplementary income for families [5, p. 565; 13, p. 72]. In the first years of independence, the republic's leadership chose a path of cautious, step-by-step agrarian reform: land was retained as state property, the state order for cotton and grain was continued, and reforms began primarily with changes in organizational forms [11, p. 90; 6, p. 12; 7, p. 8].

In 1991–1997 the main directions of reform were the redistribution of land, increasing the share of household plots and achieving grain independence. The household plots allocated to the population were expanded, dehkan farms received legal status, and collective and state farms, renamed, often continued to operate in cooperative or shirkat form while largely retaining their former management structure [7, p. 10; 15, p. 15]. Under the grain-independence policy, part of the irrigated land was allocated to wheat, which led to a certain reduction in cotton areas and a change in the crop structure [11, p. 95; 1, p. 790]. In Navoi Region too, wheat areas expanded on irrigated land alongside cotton, but cotton remained the main state obligation of farms. At this stage the organizational changes did not fundamentally alter the logic of production: farms were still obliged to fulfil the state order, and input supply and the procurement of output remained under state control [7, p. 14; 14, p. 430].

The period 1998–2007 was the stage of formation of the legal foundations and of the emergence of farm enterprises as the main form of producer. The Land Code and the laws on farm and dehkan farms and on agricultural cooperatives adopted in 1998 defined land-use rights, lease terms (long-term leases for farm enterprises) and the legal status of economic entities [17, p. 1; 7, p. 18]. After that, especially from the early 2000s, the reorganization of shirkat farms on the basis of farm enterprises accelerated and was carried out across the republic, including Navoi Region [2, p. 1105; 7, p. 20]. As a result, land was transferred to the newly formed farm enterprises on a long-term lease basis, and farm enterprises acquired a dominant position as the main organizational unit of agricultural production.

However, researchers stress that, despite the nominal independence of farmers, state influence persisted in their decisions on crop structure, input supply and the marketing of produce [14, p. 430; 13, p. 80].

The state order system remained the most important constraining factor of the reforms. Farm enterprises were obliged to deliver the set volumes of cotton and wheat at state-determined prices and to allocate part of their sown area to these crops, while the supply of seed, fertilizers, fuel and machinery services was carried out through structures under state control [7, p. 22; 14, p. 435; 5, p. 570]. Procurement prices below world market prices are assessed as a hidden mechanism of transferring resources from agriculture to other sectors, which limited farmers' incomes and reduced investment opportunities [7, p. 22; 11, p. 100; 12, p. 148]. In such conditions, fulfilment of the cotton plan remained for farmers, as in the previous period, an administrative and political responsibility.

In 2008–2016 the policy of optimizing farm enterprises, that is, merging them into larger and economically more sustainable units, and of specialization continued. This process led to land consolidation, a reduction in the number of farmers and the exit of some farms from the production system; at the same time, barriers such as unclear property rights, the risk of lease cancellation and administrative influence persisted in its implementation [2, p. 1110; 14, p. 440]. During this period, programmes aimed at developing rural infrastructure and building drinking-water supply, roads and social facilities, including measures within the framework of the Year of Rural Development and Improvement announced in 2009, improved the living conditions of the rural population to a certain extent [19, p. 120; 9, p. 30].

The use of water and land resources remained an important issue at all stages of the reforms. During the independence years, water consumers' associations were established in the management of irrigation networks and programmes for the maintenance of melioration and drainage systems were carried out, but the problems of the ageing of canal and collector networks, disparities in water distribution and soil salinization were not fully resolved [12, p. 148; 3, p. 110; 16, p. 140]. In the Zarafshan basin and Navoi Region, water scarcity, especially in the lower reaches of the river and where there were conflicts over water allocation with industry, adversely affected production in shortage years [10, p. 340; 3, p. 112]. From the 2010s, water-saving technologies, including drip irrigation and laser land levelling, began to be introduced and state subsidies were allocated to support them, but their wide diffusion has been limited by capital costs and farmers' financial capacity [1, p. 795; 18, p. 5].

Crop diversification proceeded step by step during the independence years. Initially it took the form mainly of the expansion of grain areas at the expense of cotton; later, vegetable growing, melon growing, horticulture, viticulture and livestock raising developed [1, p. 790; 11, p. 95]. However, while the state order persisted, the possibilities for diversification were limited: farmers were forced to allocate the most fertile land to cotton and wheat, while other crops were often placed on marginal or less fertile plots [1, p. 795; 7, p. 22]. In Navoi Region this preserved a functional division between karakul sheep breeding and livestock raising in desert areas and irrigated farming, while the industrial cities (Navoi, Zarafshan, Uchquduq) created stable demand for vegetables, melons, meat and dairy products [19, p. 120; 10, p. 330].

The years 2017–2021 marked a qualitatively new stage of the reforms. The main directions of this stage were the gradual abolition of the state order system, giving producers freedom to choose crops, the introduction of cotton-textile clusters combining the cultivation and processing of raw cotton, the strengthening of land lease and farmers' rights, and the implementation of the Agriculture Development Strategy for 2020–2030 approved in 2019 [18, p. 1; 9, p. 55; 4, p. 14]. Under the cluster system, farmers work with a cluster on a contract basis for raw cotton, while the cluster provides seed, financial resources and technologies and directs the product to processing, which is intended to keep

added value in the region [4, p. 14; 9, p. 55]. In Navoi Region as well, the cluster system was introduced in cotton-growing districts, some areas were converted from cotton and grain to horticulture, vegetable growing and greenhouse farming, and agro-logistics projects were developed in the territory of the "Navoi" Free Industrial-Economic Zone established in 2008. At the same time, specialists point to the unequal bargaining power between farmers and clusters and the risk of monopsony in the cluster system, an issue that requires attention in future reforms [4, p. 16; 14, p. 445].

In terms of labour conditions and employment, one of the most important changes was the decline of forced labour during the cotton harvest. The practice inherited from the Soviet period of involving schoolchildren, students and employees of state organizations in the harvest persisted for a long time in the independence years, but from the mid-2010s child labour was ended under international monitoring, and in 2017–2021 the scale of forced labour declined sharply and the harvest moved mainly to voluntary hired labour [4, p. 10–20]. Rural employment retained its seasonal character: household plots remained an important source of income, while part of the workforce moved to the industrial sector or into labour migration abroad [5, p. 570; 13, p. 85; 19, p. 125]. In Navoi Region the industrial-mining sector created an alternative source of employment for part of the local population, but disparities in income and quality of services between rural districts and industrial cities persisted [10, p. 372; 19, p. 125].

Environmental outcomes were contradictory. Although the reduction of cotton areas and the introduction of water-saving technologies made it possible to reduce water consumption, soil salinization, the ageing of drainage networks and water scarcity remain pressing problems for the Zarafshan basin [3, p. 110; 12, p. 148; 16, p. 150]. The overall environmental situation in the Aral Sea basin, including the effect of climate change on water resources, places the agrarian sector in an even more complex position [3, p. 30; 16, p. 160]. The environmental sustainability of agrarian reforms is therefore directly linked to improving the efficiency of water and land use, modernizing melioration systems and adapting the crop structure to the region's water resources.

Summarizing the results, over three decades agrarian reforms in Navoi Region moved from collective and state farms to shirkat and farm enterprises, and from the state order to the cluster system and contractual relations. Although changes in organizational forms were carried out quickly, economic independence and market incentives expanded significantly only after 2017. In assessing the actual economic and social results of the reforms, it is therefore appropriate to treat 1991–2016 mainly as a period of institutional formation and retained state control, and 2017–2021 as a period of accelerated transition to market mechanisms [7, p. 22; 9, p. 55; 18, p. 1].

DISCUSSION

The results confirm the views showing that the general regularities of agrarian reforms in post-Soviet countries – the forms of land ownership, the speed of reforms and the role of the state – determine transition outcomes [15, p. 5; 8, p. 33]. At the same time, the case of Navoi highlights the distinctiveness of Uzbekistan's path: the retention of state ownership of land, the formation of farm enterprises on a long-term lease basis and the long duration of the state order made the reforms more manageable than in some other post-Soviet countries, but limited in terms of market incentives [7, p. 8; 14, p. 430; 11, p. 100]. This feature kept resource allocation under state management both in the irrigated cotton-growing districts and in the desert livestock areas of the region.

The second important issue concerns the sequencing of reforms. Studies show that for changes in organizational forms (the transition from shirkat to farm enterprise) to lead to real producer autonomy, it was also necessary to liberalize price setting, input supply and marketing mechanisms [7, p. 22; 2, p. 1110; 13, p. 80]. The reforms of 2017–2021 were aimed precisely at filling this gap, and the abolition of the state order and the move to the cluster system expanded producers' opportunities in choosing crops and selling their produce [18, p. 1; 9, p. 55]. However, the cluster system has not fully

established a market mechanism: it retains the risk of a new hierarchical dependence in relations between large producers and farmers [4, p. 16; 14, p. 445].

Third, the results of diversification, although noticeable, are not uniform. Dependence on cotton and wheat has declined, and horticulture, vegetable growing, greenhouse farming and livestock raising have developed, but these changes are limited by water resources, markets and storage and processing infrastructure [1, p. 795; 12, p. 150]. In Navoi Region, although the industrial cities created a stable domestic market, limited water sources in desert areas narrow the geographic possibilities of diversification. For this reason, adapting the crop structure to the region's water and soil conditions, that is, agro-ecological zoning, is of particular importance at the territorial level.

Fourth, the social outcomes are also contradictory. The decline of forced labour was one of the most important social achievements of the reforms, and it also had a positive effect on the international reputation of the cotton sector [4, p. 20]. At the same time, seasonal employment of the rural population, low incomes and rural-urban disparities in the quality of social services persist [5, p. 570; 13, p. 85]. In Navoi Region, although the industrial-mining sector created additional jobs, the share of the local rural population in this sector and the wage level in the agrarian sector require special attention [10, p. 372; 19, p. 125].

Fifth, the environmental dimension remains a decisive factor for the success of the reforms. Water-saving technologies and the modernization of melioration systems can help reduce the environmental burden, but this requires large investments, farmers' financial capacity and an efficient water governance system [3, p. 110; 12, p. 150; 1, p. 795]. The next stage of the reforms therefore requires that land and water management, price signals and financial instruments be aligned with one another.

The limitations of the study must also be noted. First, the analysis relies mainly on published scholarly literature, legislative acts and official statistical publications; therefore, quantitative data at the district and farm level (sown areas, yields, the number of farm enterprises, incomes) are not fully covered. Second, surveys and interviews with farmers, cluster managers and the rural population would allow a more accurate assessment of the practical results of the reforms. Third, a quantitative comparison of Navoi Region with neighbouring regions such as Samarkand and Bukhara is a promising direction for future research. These limitations do not change the substance of the conclusions but indicate possibilities for increasing their precision.

CONCLUSION

The study showed that in 1991–2021 agrarian reforms in Navoi Region proceeded gradually with state ownership of land retained: collective and state farms were first transformed into shirkat farms and then into farm enterprises, while the state order system restricted producers' autonomy until 2017–2021. The legislative foundations of 1998, the transformation of shirkat farms into farm enterprises, the optimization of farms and, after 2017, the abolition of the state order, the introduction of the cluster system and the implementation of the strategy for 2020–2030 were the main stages of the reforms.

The reforms fundamentally changed organizational forms, and important results were achieved in diversifying the crop structure, eliminating forced labour and introducing water-saving technologies. At the same time, problems such as salinization, water scarcity, the low employment and incomes of the rural population, and the unequal bargaining power within the cluster system persist. The research hypothesis was thus confirmed: for changes in organizational forms to translate fully into economic effect, a reduction of state control, an expansion of market incentives and the easing of resource constraints were necessary.

From a practical standpoint, the following are recommended: creation of an open regional database on farm enterprises, clusters and crop structure; adaptation of the crop structure to the water and soil conditions of territories on the basis of agro-ecological zoning; expansion of financing

mechanisms for water-saving technologies; and ensuring transparency in contractual relations between farmers and clusters. Future research should aim to analyse quantitative data at the district and farm level, to conduct field surveys and to carry out comparative studies with neighbouring regions.

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