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Economic Competitiveness of Wheat Production under Alternative Policy Regimes: Evidence from Peshawar District, Pakistan

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Abstract

Wheat is the most important staple crop in Pakistan and plays a critical role in ensuring food security, rural employment, and agricultural sustainability. Government interventions through price support mechanisms, input subsidies, and trade policies significantly influence wheat production decisions and farm profitability. This study evaluates the competitiveness, comparative advantage, and policy effects associated with wheat production in Peshawar District, Khyber Pakhtunkhwa, Pakistan. Primary data were collected from 120 wheat growers through a structured questionnaire. The Policy Analysis Matrix (PAM) framework was employed to estimate private and social profitability, Domestic Resource Cost Ratio (DRC), Social Benefit-Cost Ratio (SBC), Nominal Protection Coefficient (NPC), Effective Protection Coefficient (EPC), Producer Subsidy Equivalent (PSE), and Subsidy Ratio to Producer (SRP). Results indicate that wheat production generates a net private profit of Rs. 44,882.74 per acre, demonstrating strong competitiveness under prevailing market conditions. The estimated DRC (0.63) and SBC (1.37) under the import substitution regime confirm comparative advantage and efficient utilization of domestic resources. Conversely, wheat production lacks competitiveness under the export promotion regime, as reflected by a DRC of 1.51 and SBC of 0.79. The positive values of NPC, EPC, PSE, and SRP indicate substantial policy support and protection for wheat producers. The study concludes that wheat production is economically viable for domestic food security objectives but remains uncompetitive in international markets. Policies aimed at reducing production costs, enhancing productivity, and improving market efficiency are essential for strengthening competitiveness and increasing farm income.

Keywords: Wheat production, Policy Analysis Matrix, Comparative advantage, Agricultural policy, Competitiveness, Pakistan

Introduction

Agriculture remains a vital sector of Pakistan's economy, contributing significantly to employment generation, food security, poverty reduction, and rural livelihoods (Government of Pakistan, 2024; FAO, 2023; World Bank, 2024). Despite structural changes in the economy, agriculture continues to support a large proportion of the rural population and serves as a major source of raw materials for agro-based industries. Wheat is the most important staple crop in Pakistan and plays a crucial role in ensuring national food security and economic stability (FAO, 2024; Government of Pakistan, 2024; Quddus & Mustafa, 2011).

Pakistan is among the major wheat-producing countries in the world. According to recent FAO statistics, Pakistan produced approximately 31.8 million tonnes of wheat in 2024, representing the highest production level recorded in the country's history. Wheat occupies the largest cultivated area among cereal crops and constitutes a major component of household food consumption. Consequently, sustaining wheat production remains a strategic priority for policymakers and agricultural planners (FAOSTAT, 2024; USDA, 2024). Government intervention has historically played an important role in Pakistan's wheat sector (Dorosh & Salam, 2008; Government of Pakistan, 2024; Ahmed et al., 2023). Policies such as minimum support prices, public procurement, input subsidies, and trade regulations have been implemented to stabilize producer incomes, maintain strategic grain reserves, and ensure food security. In 2024, the Economic Coordination Committee (ECC) approved wheat procurement targets of 2.45 million metric tonnes along with substantial financial allocations for procurement operations, reflecting the continued importance of government involvement in the wheat market.

While such interventions are intended to protect producers and consumers, they may also distort market signals and influence resource allocation decisions (OECD, 2023; Anderson, 2009; Dorosh & Salam, 2008). The effectiveness of these policies has therefore become an important concern in agricultural economics. Recent policy debates in Pakistan have highlighted the need to evaluate whether continued market support enhances long-term competitiveness or merely sustains production through financial transfers. Studies suggest that productivity growth, technological advancement, and efficient resource utilization are more sustainable determinants of competitiveness than price support mechanisms alone (World Bank, 2007; FAO, 2023; OECD, 2023).

The increasing integration of global agricultural markets has intensified competition among wheat-producing countries (Porter, 1990; Masters & Winter-Nelson, 1995; FAO, 2024). Under such conditions, comparative advantage becomes a critical determinant of long-term sustainability and trade competitiveness. Comparative advantage refers to the ability of a country or region to produce a commodity at a lower opportunity cost relative to alternative uses of resources. Assessing comparative advantage enables policymakers to determine whether domestic production is economically justified under both domestic and international market conditions (Lv et al., 2025; Monke & Pearson, 1989). The Policy Analysis Matrix (PAM) has emerged as one of the most widely used analytical frameworks for evaluating agricultural competitiveness, comparative advantage, and policy distortions. The PAM framework compares private profitability, which reflects actual market conditions, with social profitability, which reflects economic efficiency under undistorted market conditions. It also quantifies the effects of government interventions through various protection and subsidy indicators (Alyousaf et al., 2026; Khattak et al., 2021; Monke & Pearson, 1989).

Previous studies in Pakistan have reported mixed evidence regarding the competitiveness of wheat production. Quddus and Mustafa (2011) found that wheat production exhibited comparative advantage under certain production environments, while Anwar et al. (2005) emphasized the significant role of policy support in enhancing producer profitability. More recent analyses of Pakistan's wheat sector suggest that rising production costs, market inefficiencies, and policy distortions continue to constrain international competitiveness despite substantial government support (Khattak et al., 2021; Khattak et al., 2016).

Despite the strategic importance of wheat production, limited empirical evidence exists regarding the comparative advantage and policy effects associated with wheat production in Peshawar District, Khyber Pakhtunkhwa. This study addresses this gap by employing the Policy Analysis Matrix framework to evaluate profitability, competitiveness, comparative advantage, and government interventions in wheat production. The findings are expected to provide useful insights for policymakers seeking to enhance food security, improve farm incomes, and strengthen the competitiveness of Pakistan's wheat sector.

Data and Methodology

Study Area

The study was conducted in Tarnab, District Peshawar, Khyber Pakhtunkhwa, Pakistan. The area is characterized by irrigated agriculture and favorable climatic conditions suitable for wheat cultivation. Wheat constitutes one of the principal crops grown by farmers in the region.

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Sampling Procedure

A multistage sampling technique was employed. Two Union Councils, namely Lala and Mera Kachori, were purposively selected due to their significant wheat cultivation area. A total sample of 120 wheat growers was selected through proportional allocation sampling.

Data Collection

Primary data were collected through structured interviews with wheat farmers. Information regarding input use, output, prices, marketing costs, labor utilization, and land rent was obtained.

Theoretical Model

Analytical Framework: The policy Analysis Matrix (PAM) Model

Applied economists use a variety of techniques to measure competitiveness and policy effects. Trade economists (e.g., Corden, 1966) generally use Domestic Resource Cost (DRC), Nominal and Effective Protection Coefficients (NPC and EPC), while project-appraisal economists (e.g., Gittinger, 1982) typically use Social Benefit-Cost (SBC) Ratio. Agricultural trade specialists (e.g., Josling, 1973) have developed new indicators such as Producer Subsidy Equivalent (PSE) and Subsidy Ratio to Producers (SRP). However, the proposed study used Policy Analysis Matrix (PAM). The Policy Analysis Matrix (PAM) is a computational skeleton developed by Monke and Pearson (1989) and improved by Masters and Winter-Nelson (1995) for measuring, input use efficiency in production, comparative advantage and the government involvements. Masters (1991), Masters and Winter-Nelson (1995), Khan (1997), Khan (2002), and Akhtar and Khan (2006) have used Policy Analysis Matrix (PAM) that relates the above parameters of comparative advantage and policy effects. This study also uses PAM approach to determine comparative advantage and government interventions in wheat crop sectors.

The PAM consists of two accounting identities - the profitability identity and the divergences identity or differently PAM is a matrix of costs and revenue structures and consists of two accounting identities. The first identity described by second and third column of the matrix shows that profit is equal to revenue minus costs measured in either private or social opportunity costs terms. Competitiveness of an agriculture system or crop is measured by private profitability in PAM at actual market prices. While comparative advantage of an agriculture system or crop is measured by social profitability or social opportunity costs. The second identity shown by last column measures the policy effects or divergences i.e.; the difference between observed values and efficiency values. Observed value differs from efficiency values due to market failures, or distorting government policy. The PAM has the flexibility of comparing two or more unlike system or crops for measuring their competitiveness by computing their individual private benefit-cost ratio and then comparing these ratios across all the systems or crops.

Table 1: ***The Structure of the Policy Analysis Matrix (PAM)***

Budget Items	Private budget at Market Prices	National budget at National Opportunity Costs	Effects of policy transfer (Divergences)
Output	A	F	K [c]
Labor costs	B	G	L [d]
Capital costs	C	H	M [e]
Tradable input costs	D	I	N [f]
Profits	E [a]	J [b]	O [g]

Source: Adapted from Ph.D. Thesis of Noor P. Khan Submitted to University of Kentucky, USA, 1997.

[a] Net Private Profitability, E = A – (B+C+D)

[b] Net Social Profitability, J = F – (G+H+I)

[c] Output Transfers, K = (A - F)

[d] Labor Market Distortions L, = (B - G)

[e] Capital Market Distortions M, = (C - H)

[f] Other inputs Transfers N, = (D - I)

[g] Total Policy Effects O, = (E - J) = (K - L - M - N) = (NPP - NSP) = PSE Total

Private Profitability

The first column of the Table 1 is budget items and the data entered in the second column provide a measure of private profitability (E), defined as the difference between observed revenue (A) and costs (B+C+D) valued at market prices (the observed market prices). The calculation of private profitability measures the competitiveness of the agricultural system, given current technologies, prices for inputs and outputs and policy transfers. A positive private profit indicates the competitiveness of a product system under investigation, given output and input prices, technologies and government policies.

Social Profitability

The third column of the Table 1 calculates the social profitability (J) that reflects social opportunity costs. It is defined as the difference between revenue (F) and costs of the domestic factors and tradable inputs (G+H+I) priced at social opportunity cost (social values). Social profitability measures efficiency or comparative advantage of the agricultural systems. A positive social profit indicates that the system uses scarce resources efficiently and contributes to national income.

Policy Effects/Divergences

The last column of the Table 1 estimates the difference between the second and third column. It is concerned with the difference between private and social valuation of revenue, costs and profit. For each entry in the matrix, any divergence between the observed private (actual market) prices and the estimated social price must be explained by the effects of the policy or the existence of market failures. Distorting policies leads to an inefficient use of resources that enhance the divergence. The efficient policies offsetting the effects of market failures generate greater income and thus correct divergence by reducing difference between private and social valuations.

Using the elements in the above table, the PAM includes all the data needed to calculate the Domestic Resource Cost Ratio (DRC), Social Benefit Cost Ratio (SBC), Nominal Protection Coefficient (NPC), Effective Protection Coefficient (EFC), Percentage Producer Subsidy Equivalent (PSE), and Subsidy Ratio to Producer (SRP) as follows:

1. Domestic Resource Cost ratio (DRC) = (G + H)/ (F - I)
2. Social Benefit-Cost Ratio (SBC) = F/ (G + H + I)
3. Nominal Protection Coefficient (NPC) = A/F
4. Effective Protection Coefficient (EPC) = (A - D)/ (F - I)
5. Producer Subsidy Equivalent (PSE) = O/A
6. Subsidy Ratio to Producer (SRP) = O/F

Domestic Resource Cost Ratio (DRC)

The DRC ratio measures an activity's contribution to national income and thus comparative advantage by quantifying the opportunity costs of domestic resources used in per unit of tradable value added of that activity, both measured at social (optimal) prices in local currency. If DRC ratio is less than unity it shows the comparative advantage of a country, conversely, a DRC ratio greater than unity indicates inefficiency of the country in producing that particular commodity. In the PAM notation, DRC = (G + H) / (F - I). In this ratio, G and H are costs of domestic factors (i.e., land, labor and capital) while F is revenue and I are the costs of the tradable inputs of the activity. The difference (F - I) is tradable value added of the activity when everything is valued at social opportunity cost.

Social Benefit-Cost Ratio (SBC)

The Social Benefit-Cost ratio is another measure of efficiency. In the PAM context, SBC = F/ (G + H + I), where F is the revenue both valued at social prices and G, H, I are the costs of tradable and non-tradable inputs. The negative social profit suggests that the sector is wasting resources that could have been utilized more efficiently in some other sector. This system cannot survive without government assistance.

Nominal Protection Coefficient (NPC)

Just like measures of economic efficiency, indicators of policy analysis can be generated directly from the elements in PAM. The simplest indicator of policy analysis is the Nominal Protection Coefficient (NPC), the ratio of domestic price of commodity to its border parity price. Using entries in Table 3.5, the ratio, NPC = A/F, is formulated very easily, where A is domestic price and F is border price of a given commodity. As an indicator of policy effects, an NPC lower than one means that production of a particular commodity is taxed either because of market failure or government intervention. On the contrary an NPC greater than unity, suggests inefficiency of a country in producing that particular commodity and that the price is extremely affected by government policies or other factors.

Effective Protection Coefficient (EPC)

The Effective Protection Coefficient (EPC) can be defined as the ratio of distorted tradable value-added at market prices to its undistorted value priced at border prices. Using PAM elements, EPC = (A - D)/ (F - I). The entries A and D are revenue and tradable inputs costs valued at market prices while the elements F and I are revenue and tradable inputs costs valued at social prices. Thus the ratio of the difference between A and D (distorted tradable value added) and F and I (undistorted tradable value added) is EPC. The EPC quickly became and still remains a dominant indicator of policy effects in empirical studies. As such, the EPC is the summary measure of the incentives or disincentives caused by the government policies in both input and output markets. Using the border price as the reference price, an EPC greater than unity implies price protection and positive incentives to the domestic producer of that commodity while the opposite is true when the EPC is positive but less than unity. If EPC is equal to one, the structure of protection is neutral. Producers are neither favored nor discriminated against. If EPC is less than zero, it means that either, (a) value added in domestic prices is negative (b) value added in border prices is negative. In the first case producer will not stay in the business until government subsidizes to remain in an unprofitable business. In second case the economy is losing exchange by domestic production of the commodity, as the cost of traded inputs exceeds the gross value of output.

Producers Subsidy Equivalent (PSE)

The Producers Subsidy Equivalent (PSE) analysis is used to determine the government intervention for certain crop. The percentage PSE is defined as the ratio of total PSE to revenue valued at market prices. The ratio, PSE = O/ A, is derived very easily from the matrix, where O is total policy transfers and A is revenue at market price. The PSE ratio understates the agricultural protection of the countries which support output prices relative to countries that subsidize factor of production. The negative values of PSEs indicate overall transfer from producer to consumer and tax payers while the positive values of PSEs indicate the overall transfer from consumer to producer.

Subsidy Ratio to Producer (SRP)

The Subsidy Ratio to Producers (SRP) analysis is also used to determine the government interference for certain activity. The SRP uses the same information as percentage PSE, but it has an advantage of being equivalent measure like NPC and EPC. The SRP can be obtained directly from PAM by picking up the relevant elements of the matrix.

RESULTS & DISCUSSION

Cost Structure of Wheat Production

The average production cost of wheat was estimated at Rs. 38,375 per acre (see table-1). Fertilizers and manures represented the largest cost component (24.29%), followed by harvesting and threshing expenses (23.76%). Land rent accounted for 15.63% of total production costs, while marketing and transportation contributed 13.53%.

The average wheat yield was 1,580 kg per acre (39.5 maunds), with an average market price of Rs. 1,260 per 40 kg.

Policy Analysis Matrix (PAM) of Wheat Production

PAM for Wheat Production under Import Substitution Regime

The Policy Analysis Matrix (PAM) was employed to evaluate the profitability, competitiveness, and policy effects associated with wheat production in the study area. The matrix compares revenues, costs, and profits at both private (market) and social (economic) prices.

The results indicate (see Table-2) that wheat production is privately profitable, generating a net private profit of Rs. 44,882.74 per acre. However, social profitability is substantially lower (Rs. 12,522.97 per acre), suggesting the presence of market distortions and policy interventions. The negative transfer in output (-Rs. 4,293.61) indicates that domestic wheat prices were lower than their corresponding social values. Similarly, negative transfers for tradable inputs and domestic factors imply that farmers benefited from input subsidies and policy support. These findings suggest that government intervention contributes significantly to the profitability of wheat production.

The positive net transfer of Rs. 32,359.77 demonstrates that producers receive substantial support through existing agricultural policies. Similar findings were reported by Quddus and Mustafa (2011), who found that wheat producers in Pakistan benefited from policy-induced incentives that enhanced private profitability relative to social profitability.

PAM Results under Export Promotion Regime

Under the export promotion scenario, private profitability remains unchanged (see Table-3) because market prices are identical. However, social profitability becomes negative (-Rs. 7,155.05 per acre), indicating that wheat production is economically inefficient when evaluated against international export parity prices. The large positive transfer of Rs. 52,037.79 suggests that substantial policy support would be required to maintain profitability under export-oriented production.

This finding in table-3 implies that wheat production in the study area is suitable primarily for domestic consumption rather than international export markets. Similar conclusions have been reported in studies on Pakistan's wheat sector, which highlight relatively high production costs, limited productivity growth, and reduced international competitiveness as major constraints to export performance (Food and Agriculture Organization, 2023; International Food Policy Research Institute, 2019; Dorosh & Salam, 2008).

Comparative Advantage Analysis

Comparative advantage was assessed using the Domestic Resource Cost Ratio (DRC) and Social Benefit-Cost Ratio (SBC) provided in Table-4.

The Domestic Resource Cost Ratio (DRC) measures the efficiency with which domestic resources are utilized in producing wheat. A DRC value less than one indicates comparative advantage, whereas a value greater than one suggests comparative disadvantage.

The estimated DRC value of 0.63 (see Table-4) under the import substitution regime confirms that wheat production possesses a comparative advantage. This implies that the domestic resources used in wheat production generate value greater than their opportunity cost. Conversely, the DRC value of 1.51 under the export promotion regime indicates that wheat production lacks international competitiveness.

Similarly, the Social Benefit-Cost Ratio (SBC) of 1.37 under import substitution confirms efficient resource utilization and economic viability. However, the SBC value of 0.79 under export promotion indicates that wheat production is not economically efficient for export purposes.

These results are consistent with the findings of Anwar et al. (2005) and Ali et al. (2020), who reported that Pakistan's wheat sector exhibits comparative advantage in meeting domestic demand but faces challenges in competing in international markets due to higher production costs and policy distortions.

Nominal Protection Coefficient (NPC)

The Nominal Protection Coefficient (NPC) measures the extent to which domestic output prices differ from border prices. Values greater than one indicate that producers receive output prices above world market prices due to policy support (Eric A. Monke & Scott R. Pearson, 1989; Food and Agriculture Organization, 1991).

The estimated NPC values of 1.67 and 2.89 (see Table-5) suggest that wheat growers receive considerable protection through government pricing policies. The results indicate that domestic wheat prices are substantially higher than corresponding border prices, reflecting the role of procurement policies and market interventions.

These findings support earlier studies showing that wheat production in Pakistan continues to receive significant price support from government agencies, thereby enhancing producer welfare and production incentives (Dorosh & Salam, 2008; International Food Policy Research Institute, 2019; Ahmad et al., 2017).

Effective Protection Coefficient (EPC)

The Effective Protection Coefficient (EPC) incorporates policy effects on both outputs and tradable inputs. Values exceeding unity indicate positive protection (Eric A. Monke & Scott R. Pearson, 1989; Food and Agriculture Organization, 1991).

The estimated EPC values (see Table-6) of 1.95 and 4.68 indicate strong government support to wheat production through favorable output prices and subsidized inputs. The considerably higher EPC under export promotion demonstrates that greater policy intervention would be necessary to maintain competitiveness in international markets. These results are consistent with previous Policy Analysis Matrix (PAM) studies conducted in South Asia, which found that agricultural profitability and competitiveness are often influenced more by government support policies than by purely market-driven comparative advantage (Eric A. Monke & Scott R. Pearson, 1989; Dorosh & Salam, 2008; International Food Policy Research Institute, 2019).

Producer Support Measures

The Producer Subsidy Equivalent (PSE) and Subsidy Ratio to Producer (SRP) quantify the magnitude of government support transferred to producers.

The positive (see Table-7) PSE values indicate that wheat growers benefit from government support equivalent to 42% and 67% of farm revenue under import substitution and export promotion regimes, respectively. Likewise, the SRP values reveal substantial transfers from society to producers through agricultural support policies.

These findings suggest that existing policy interventions contribute significantly to maintaining farm profitability and food security objectives (Dorosh & Salam, 2008; Food and Agriculture Organization, 2023). However, excessive dependence on subsidies may reduce incentives for productivity improvements and resource-use efficiency. Recent studies emphasize that sustainable competitiveness requires investments in technology, improved seed varieties, mechanization, irrigation efficiency, and extension services rather than reliance solely on market protection measures (Food and Agriculture Organization, 2022; World Bank, 2021; International Food Policy Research Institute, 2019).

CONCLUSION

The findings demonstrate that wheat production in Peshawar District is financially profitable and possesses a comparative advantage under the import substitution regime. The DRC and SBC indicators confirm efficient use of domestic resources for meeting national food security objectives. However, the absence of comparative advantage under export promotion indicates that wheat production remains insufficiently competitive in international markets.

The positive values of NPC, EPC, PSE, and SRP reveal that government interventions play a critical role in sustaining wheat production and supporting farm incomes. Nevertheless, long-term competitiveness will depend on increasing productivity, reducing production costs, and improving market efficiency. Therefore, future agricultural policies should prioritize productivity-enhancing investments, technological innovation, and efficient resource management to ensure sustainable growth of Pakistan's wheat sector.

Recommendations

1. Promote high-yielding and climate-resilient wheat varieties.
2. Improve access to quality inputs at affordable prices.
3. Strengthen agricultural extension and farmer training programs.
4. Encourage mechanization to enhance production efficiency.
5. Improve market infrastructure and reduce marketing costs.
6. Focus on productivity-enhancing investments rather than subsidies alone.
7. Facilitate access to agricultural credit for wheat growers.
8. Reduce production costs to improve competitiveness and food security.

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TABLES

Table 1: ***Wheat Enterprise Budget per Acre***

Items	Units	Quantity	Unit Cost (Rs)	Total Cost (Rs)
Pre-Sowing	Rs.			**3200**
Ploughing and leveling	Hrs.	2	1100	2200
Labour for Land preparation	M-Day	2	500	1000
Seed and Sowing	Rs.			**2850**
Seed used	Kgs.	45	50	2250
Seed treatment	Rs.	1	50	50
Labour +Transport charges for Seed	M-Day	1	550	550
Irrigation	Rs.			**940**
Abiana	Rs.	2	200	400
Labour cost for irrigation	M-Day	2	270	540
Intercultural Practices	Rs.			**1750**
Pesticides/ weedicides/ fungicides	Bottles	2	580	1160
Weeding	M-Day	1	270	270
Spray Pumps	Days	1	50	50
Labour charges for application	M-Day	1	270	270
Manures and fertilizers	Rs.			**9325**
FYM + transportation	Trolley	2	2500	5000
Labour for FYM Application	M-Day	2	250	500
DAP	Kgs	50	55	2750
Urea	Kgs	25	23	575
Labour for Fertilizer application.	M-Day	2	250	500
Harvesting and threshing charges,	Rs.			**9120**
Harvesting charges	M-Day	5	568	2840
Threshing charges	Hrs	7	530	3710
Bagging charges used	Rs.	38	15	570
Labour charges	M-Day	8	250	2000
Land use expenses	Rs.			**6000**
Rent of hired land for 6 month	Acre	1	6000	6000
Grand Total I (a+b+c+d+e+f+g)	Rs.			33185
Total Marketing	Rs.			**5190**
Transportation to market	Rs.	1	2200	2200
Storage Charges	Rs.	1	1500	1500
Labour for Loading and Unloading	Rs.	4	200	800
Commission (3 percent)	%age			690
Grand Total Cost	Rs.			**38375**

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Yield	(Kg/Acre)	**1580**	**31.5**	**49770**
Yield in maunds (@ 40 kg)	Rs.			**39.5**
Average Market Price of wheat @40 Kg	Rs.			**1260**
Wheat Straw (by-Product) maunds @40kg	Rs.	**2**	**14000**	**28000**
Production cost Per 40 Kg	Rs.			**971.5**
Gross Revenue	Rs.			**77770**
Net income	Rs.			**39395**

Source: Survey Data

Table-2: ***Policy Analysis Matrix Results for Wheat Production under Import Substitution Regime (Rs. /Acre)***

Particulars	**Market Prices**	**Social Prices**	**Transfers**
Revenue	77,770.00	82,063.61	-4,293.61
Tradable Inputs	12,240.45	12,916.23	-675.78
Domestic Factors (Labor + Capital)	20,646.81	21,145.43	-498.62
Profit	44,882.74	12,522.97	32,359.77

Source: Authors' calculations.

Table 3: ***Policy Analysis Matrix Results for Wheat Production under Export Promotion Regime (Rs./Acre)***

Particulars	**Market Prices**	**Social Prices**	**Transfers**
Revenue	77,770.00	82,063.61	-4,293.61
Tradable Inputs	12,240.45	12,916.23	-675.78
Domestic Factors (Labor + Capital)	20,646.81	21,145.43	-498.62
Profit	44,882.74	-7,155.05	52,037.79

Source: Authors' calculations.

Table 4: ***Comparative Advantage Indicators for Wheat Production***

Indicator	**Import Substitution**	**Export Promotion**
Domestic Resource Cost Ratio (DRC)	0.63	1.51
Social Benefit-Cost Ratio (SBC)	1.37	0.79

Source: Authors' calculations.

Table 5: ***Nominal Protection Coefficient of Wheat Production***

Indicator	**Import Substitution**	**Export Promotion**
NPC	1.67	2.89

Source: Authors' calculations.

Table 6: ***Effective Protection Coefficient of Wheat Production***

Indicator	**Import Substitution**	**Export Promotion**
EPC	1.95	4.68

Source: Authors' calculations.

Table 6: ***Producer Support Indicators for Wheat Production***

Indicator	Import Substitution	Export Promotion
Producer Subsidy Equivalent (PSE)	0.42	0.67
Subsidy Ratio to Producer (SRP)	0.69	1.93

Source: Authors' calculations