Cost-Benefit Analysis of Pomegranate Production in Arghandab and Dand Districts, Kandahar, Afghanisatan

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ABSTRACT

Pomegranate (*Punica granatum*), production in Afghanistan is a significant contributor to the Afghan agricultural economy. Afghanistan is known as the land of pomegranate, famous for its large and tastier pomegranate. Pomegranate is a major fruit crop in many provinces, *viz*., Kandahar, Helmand, Farah and Balkh and is the source of livelihood for thousands of farmers. In this research, 120 participants were surveyed by Snowballing sampling technique in Arghandab and Dand districts. The primary data for the study was collected from the 120 respondents by personal interview method using pre-tested schedule. Two financial viability techniques were used in the study to analyze the profitability of pomegranate production *viz*., Benefit Cost Ratio (BCR) and Net Present Value (NPV). The findings reveal that the NPV for Arghandab district at 10 per cent discount rate was Rs 82,081 while for Dand district, it was Rs 26,441. The (NPV) of pomegranate production clearly indicates financial viability of investment in both districts of Arghandab and Dand. The BC ratio for Arghandab and Dand district were 1.18 and 1.05 respectively, at 10 per cent discount rate, indicating the worthiness of investment. The Internal Rate of Return was found to be 18 per cent for Arghandab district and 13 per cent for Dand district. The returns from Pomegranate production in the yield was 5,000 Kgs per hectare in fourth year resulting in the gross value of Rs 115,000 for Arghandab district. For Dand district the same was 4,700 Kgs valuing at Rs 108,100 per hectare.

POMEGRANATE (*Punica granatum*), is a tree which grows a delicious fruit called as 'super fruit' or 'seeded apple'. Pomegranate is originally from Himalayan mountain range which is extended to Afghanistan as Hindu Kush mountains. The history of Afghanistan pomegranates back to centuries in the literature from the time when Iran, Pakistan, Afghanistan and India were one territory and later on it was extended to many other surrounding countries of Afghanistan but original places still keep the original quality as the 'world's best pomegranate'. (Brown, 2018)

Pomegranate production is a significant contributor to the Afghans agricultural economy. Pomegranate is a major fruit crop in many provinces such as Kandahar,

Helmand, Farah and Balkh and is the source of the livelihood for thousands of farmers. Afghanistan is known as 'The country of pomegranate fruit' in view of not only its conventional methods of production but also for the quality of the landraces grown. Since 1970s, political turmoil and wars have ravaged the country; which had a serious effect on exporting the fruit to its biggest markets in Pakistan and India. Recently there has been a re-emergence of the pomegranate industry in Afghanistan. In 2009, several hundred thousand pomegranate trees were planted and the nation exported nearly 50,000 tons of the fruit. In October 2009, a £6 million juice factory was constructed in Kabul to make juice concentrate from the fruit as it is more commercially viable. (Mustafa, 2010)

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The local varieties of pomegranate grown in the main production area of Kandahar province are known for their high quality and productivity. Farmers reported average yields ranging from about 1,720 Kg/jerib (8,600 Kg/hectare) in Dand district to more than 3,800 Kg/jerib (19,000 Kg/hectare) in Arghandab district. Farah Province is also well known for pomegranate production and high quality of its fruits. In these two districts, pomegranate is the second most cultivated fruit crop. The total production of pomegranate in Afghanistan is 75,000 tons per year, which produce three per cent of pomegranate of the world (Sayeed, 2012).

Different varieties of pomegranates are produced in Afghanistan and supplied to the local markets. Though the maturity time of the crop varies according to the climatic conditions, usually the fruit comes into the market during summer and continues into the fall season. The quantity supplied increases during the fall and relatively the price decreases. Since cold storage facilities are not available for the farmers to store them and keep them for a longer time, farmers are forced to sell them as soon as possible. A large portion of the pomegranates are exported to nearest markets due to availability of transportation (Ghulam, 2013).

Due to relatively established peace as the result of political changes in some areas of Kandahar province, the farmers got the opportunity to increase the production of the pomegranates. Different varieties of pomegranates are produced in Kandahar province and some of them supplied to the local markets during the summer and continues within weeks in the fall (autumn) season (maturity time are different in Kandahar province due to the change of temperature and climates). Due to the fact that there are no cold storage facilities available for the farmers to store them and keep them for a longer time, farmers are forced to sell its production very quickly (Ghafury, 2014).

In the year 2015, pomegranate season in Kandahar has yielded great success. Statistics from Afghan Chamber of Commerce in Kandahar showed that 7,681 tons of Kandahar pomegranates have been exported abroad as compared to a historical high of 7,000 tons. The main markets for the pomegranates are India, Pakistan and Tajikistan, with some even reaching continental Europe *via.,* Dubai. Kandahar province is known to produce the best variety of the fruit, especially in terms of the taste, color and size of its seeds (Fahimullah wadak *et al.*, 2025 and Promod Nayak *et al.,* 2023). The Ministry of Agriculture, Irrigation and Livestock (MAIL) is working on improving cold storage facilities and reducing transportation costs to capitalize on the pomegranate's export potential (Salam, 2016).

A great number of Afghan traders in Afghanistan do not have access to information regarding the markets which may result in their business failure. Such information and communication gaps make the Afghan businessmen incur huge losses particularly the ones who are dealing with the perishable fresh fruit products.

The objective of this study is to analyze cost-benefit of pomegranate production in Arghandab and Dand districts.

Khunt *et al*. (2009) conducted a study on economics of production, profitability and marketing cost of pomegranate analyzed the utilization and disposal pattern of pomegranate in Bhavnagar district of Saurashtra region of Gujarat. It was evident from the study that marketable surplus was 98.38 percent. The share of home consumption, relatives and religious purposes were negligible and loss due to damage was only 0.83 per cent. The disposal pattern of pomegranate marketable surplus in different market stated that majority of the farmers had disposed (59.01 per cent) their production in the local market.

Jadhav (2012) stated that the average yield of pomegranate was 17.46 tons per ha in Marathwada region of Maharashtra, India. Moreover, good demand for pomegranate fruits in market leads to fetch the remunerative average price Rs.51.53 per kg. The highest yield was observed in medium size of holdings *i.e.,* 19.18 ton/ha followed by large (17.20 ton/ha) and small (16.01 ton/ha) size of holdings respectively. As well as the average price received for pomegranate was highest in medium size of

holdings *i.e.,* Rs.53.95/kg that followed by large (51.73/kg) and small (48.91/kg) size of holdings respectively.

Perke (2017) Conducted a research on costs, returns and profitability of pomegranate production in India. The result show that during 2013-2014 pomegranate was cultivated over 1.31 lakh ha with an annual production of 13.46 lakh tones and productivity of 10.27 tones/ha in India. At present Maharashtra is the leading state in acreage covering about 68.7 per cent of the area under pomegranate. Production wise Maharashtra ranks first (9, 45,000 tones) accounting 70.2 per cent, followed by Karnataka (1,34,180 tones), Gujarat (99,330 tones), Andhra Pradesh (90,010 tones), Telangana (25,970 tones), Madhya Pradesh (25,290 tones), Tamilnadu (13,090 tones) and other states contributing for the rent of the production. The total area under Pomegranate in Ahmednagar district during the year 2013-14 was 4388.0 hectare with the production of 30644 MT and productivity of 6.98 MT/ha.

Ekbote and K. V. Ashalatha (2011) published a research paper title 'Investment pattern and maintenance cost in pomegranate orchards: An economic analysis' In their research paper they did the investigation on the investment pattern in pomegranate orchard and to compute the costs and returns in pomegranate production. In their paper they did the detail analysis of cost required & the income generation in pomegranate production. They did their study in Challakere and Hiriyur talukas in Karnataka. The financial feasibility analysis revealed that on an average the investment in pomegranate orchards can be recovered within six years in both the talukas. The returns per rupee of investment in these orchards were capable of generating nearly three rupees which was highly profitable venture. The internal rate of return was found to be in the range of 57-59 percent which was much higher compared to the cost of capital (9.5%) and hence highly profitable. Overall, the proposition of growing pomegranate crop was highly profitable as revealed by the financial feasibility tests.

Murad Canakci (2010) presented a research paper titled 'Energy use pattern and economic analyses of pomegranate production in Turkey' The objective of this study was; to determine the energy usage, to find the output-input energy ratio and their relationships and to analyze the economic variables in pomegranate production in Turkey. The energy use pattern and economic item values were determined by a survey including 92 farms from three zones having various geographical and land properties. The findings showed that the energy requirements were between 32619.0 and 44462.7 MJ ha-1 and the energy ratios of three different zones varied from 1.25 to 1.94. Total net return and benefit- cost ratio ranges were found to be 4427 - 11693 $ ha-1 and 1.43-1.73, respectively.

Gangwar *et al.* (2010) have undertaken a study on economic evaluation of peach production in North Indian plains with the help of different investment appraisal methods. The Net Present Value (NPV) worked out to be Rs.44807, the Benefit Cost Ratio (BCR) as 1.41 and Internal Rate of Return (IRR) as 22.20 under the present value summation method. Under the amortization method also the Net Present Value (NPV) and Benefit Cost (BC) ratio were at Rs.42877 and 1.28 respectively, which indicated that peach production in Punjab and Uttara hand (North Indian Plains) were a profitable venture.

Rao and Chaudhary (2013) conducted a study on the capital productivity measures which have indicated that an investment in the mango garden in the region is a profitable proposition. The investment can be recovered by the farmers in about 11.5 years and the benefit cost ratio is 1.46:1. The positive net present value has indicated the soundness of the investments made in mango production. The internal rate of returns has also indicated favorable rate of the returns.

METHODOLOGY

Kandahar is one of the thirty-four provinces of Afghanistan, located in the Southern part of the country next to Pakistan. It is surrounded by Helmand in the West, Urozgan in the North and Zabul Province in the East. Kandahar province experiences

a predominantly continental climate, characterized by hot summers and cold winters. Kandahar has significant temperature variation between seasons. The primary data for the study was collected from 120 respondents by personal interview method using pre-tested questionnaires. The questionnaires for the study were designed taking into consideration the objectives of the study. The secondary data was collected from Provincial Department of Agriculture, Horticulture, Ministry of Agriculture, Irrigation and Livestock (MAIL) of Afghanistan websites etc. The data related to the list of pomegranate cultivars was collected from the Research Center of Pomegranate, Research Journals, books and published articles. The method which was used in this research was a descriptive method. the respondents were selected by Snowballing sampling technique. Total populations were unknown to draw a statically based sample therefore we have come up with 120 respondents which provided enough information for study conclusion. Two financial viability techniques were used in the study to analyze profitability cost-benefit of pomegranate production *viz.,* Benefit Cost Ratio (BCR) and Net Present Value (NPV). The Benefit Cost Ratio (BCR) of investment is the ratio of the discounted value of all cash inflows to the discounted value of all cash outflows during the life of pomegranate which means, it is worked out by discounting the future gross returns and cost during the life period of pomegranate at the rate of 10 per cent, using Equation.

$$BCR = \frac{\text{Gross Present Value of Income(B)}}{\text{Gross Present Value of Cost (C)}}$$

$$B = \sum_{t=0}^{T} \frac{Bt}{(1+I)t} \qquad C = \sum_{t=0}^{T} \frac{Ct}{(1+I)t}$$

Where,

Bt = Benefit from unit in the year,

Ct = Cost of unit in the year,

I = Rate of discount (10% per annum),

t = Age of unit (in years) and

T = Economic life of unit (in years).

$$NPV = \sum_{t=0}^{n} \frac{C_t}{(1+r)^t}$$

Where,

Ct = Cash outflow at time t

r = Discount rate (interest rate),

t = Time period (from 0 to n)

n = Total number of time periods

Net Present Value is the discounted valve of all cash inflows, net of all cash outflows of the project during its life period.

RESULTS AND DISCUSSION

Average family size of the sampled farmers were analyzed and tabulated in Table 1. The results revealed that the average number of adult male and female in Arghandab district was 1 and 2 respectively. Whereas the average of male and female children were 2 and 3 respectively. In the case of Dand district, average adult male and female members in a family were 1 and 2 respectively. Average number of children in a family of the same district was 6. Therefore, the adult male and female members in a family in both the district were 2 and 4 respectively. Whereas the average number male and female children were 5 and 6 per family.

The Table 2, clearly indicates that the major cost component of establishing the pomegranate orchard is the cost of manure accounting to 37.10 per cent and 33.95 per cent per hectare in Arghandab and Dand districts respectively. Since, in Afghanistan, especially in pomegranate farmers use more organic manure and they procure large quantities of FYM from local and distant areas and therefore the cost is high. The second major component is the cost of planting material attributing to 16.58 and 16.76 per cent respectively in the areas of Arghandab and Dand district. Following it is the cost of fertilizer amounting to 15.22 per cent and 14.57 per cent of the total cost in the order of Arghandab and Dand

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TABLE 1

Average family size of the sampled farmers in the study area

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Particulars	Adult			Children		
	Adult Male	Adult Female	Adult Total	Child Male	Child Female	Child Total
Arghandab	1	2	3	2	3	5
Dand	1	2	3	3	3	6
Total	2	4	6	5	6	11

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(*Source* : Survey data, 2024)

TABLE 2

Establishment cost for setting up the pomegranate orchard (Rupees per hectare)

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Cost Particulars	Selected districts			
	Arghandab		Dand	
	Per hectare	Per cent	Per hectare	Per cent
Land Preparation	11,875	12.60	10,600	11.6
Planting material	15,625	16.58	15,300	16.76
Human labour	8,750	9.28	8,600	9.42
Fertilizer	15,000	15.92	13,300	14.57
Manure	35,000	37.10	31,000	33.95
Plant protection	3,000	3.11	3,500	3.83
Irrigation	5,000	5.32	9,000	9.86
Total	94,250	100	91,300	100

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(*Source* : Survey data, 2024)

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districts. About Rs.11,875 (12.6 per cent) and Rs.10,600 (11.61 per cent) of the cost is spent on land preparation such as use of machinery for land leveling, bunds preparation, stubbles removal, dipping of pits etc. Human labour cost amounted to 9.28 per cent per hectare and 9.42 per cent per hectare for Arghandab and Dand districts respectively. Human labour is used for weeding operation, fertilizers application, pesticides sprinkling etc. In Arghandab district plant protection cost was 3.11 per cent and irrigation was 5.32 per cent, while in the Dand district the same was 3.83 and 9.86 per cent respectively. The irrigation charges per hectare in Arghandab district was slightly lower (Rs.5,000)

when compared to Dand district (Rs.9,000) because Arghandab has canal irrigation and Dand has bore well source of irrigation. Thus the total cost of establishment of pomegranate orchard worked out to Rs.94,250 per hectare and Rs.91,300 per hectare. The above analysis indicates the cost of manure as the major component of the total establishment cost in pomegranate cultivation.

The Table 3, shows that there is no yield obtained during the second and third year of the orchard establishment. The productive period starts from fourth year onwards. The yield was 5,000 Kgs per hectare in fourth year resulting in the gross value of

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TABLE 3

Returns from pomegranate production (Rupees per hectare)

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Years	Selected districts					
	Arghandab			Dand		
	Quantity/Kg	Price/Kg	Value	Quantity/Kg	Price/Kg	Value
Year II	Nil	Nil	Nil	Nil	Nil	Nil
Year III	Nil	Nil	Nil	Nil	Nil	Nil
Year IV	5,000	23	115,000	4,700	23	108,100
Year V	6,000	25	150,000	5,500	25	137,500
Year VI	8,000	35	280,000	7,500	35	262,500
Year VII	10,000	40	400,000	9,500	38	361,000
Total	29,000		945,000	27,200		869,100

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(*Source* : Survey data, 2024)

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Rs.115,000 in Arghandab district. In Dand district the same was 4,700 Kgs valuing at Rs 108,100 per hectare. In Arghandab district the yields are higher than Dand district because of better irrigation facilities and environment conditions. The yields in Arghandab during the fifth, sixth and seventh year were 6,000 Kgs, 8,000 Kgs and 10,000 Kgs respectively with value of Rs.11,5,000, Rs.2,80,000 and Rs.4,00,000 in the same order. Besides increase in yield, the price per Kg also indicated a rise. In Dand district, the yields during fifth, sixth and seventh year was 5,500 Kgs, 7,500 Kgs and 9,500 Kgs per hectare and the gross income received was Rs.1,37,500 Rs.2,62,500 and Rs.3,61,000 respectively. Though there was not much difference in the pricing in both the districts, yet there was a difference in the income due to yield variation.

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TABLE 4

Financial viability indicates of pomegranate production in Arghandab district

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Years	Total cost	Gross returns	Net returns	Deflated total cost	Deflated gross return	Deflated net return	Discounting factor at 10%
Year I	94,250	0	-94,250	85681.81	0	-85681.81	0.909
Year II	78,500	0	-78,500	64876.03	0	-64876.03	0.826
Year III	86,500	0	-86,500	64988.73	0	-64988.73	0.751
Year IV	92,000	115,000	23,000	62837.23	78546.54	15709.30	0.683
Year V	97,000	150,000	53,000	60229.36	93138.19	32908.83	0.620
Year VI	102,500	280,000	177,500	57858.57	158052.7	100194.12	0.564
Year VII	110,000	400,000	290,000	56447.39	205263.2	148815.85	0.513
Total	660,750	945,000	284,250	452,919	535,001	82,082	

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NPV 82081.53495; B-C ratio 1.181227783; IRR 18%

(*Source* : Survey data, 2024)

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Kgs, 8,000 Kgs and 10,000 Kgs respectively with value of Rs.11,5,000, Rs.2,80,000 and Rs.4,00,000 in

Since there was no yield during the first, second and third year, there was no gross returns and net returns were negative with Rs.-94,250, Rs.-78,500 and Rs.-86,500. The net income during the subsequent years increased drastically by Rs.23,000 per hectare in fourth year, Rs.53,000 (fifth year), Rs.1,77,500 (sixth year) and Rs.2,90,000 (seventh year) indicating positive returns. In this study, NPV was calculated to indicate the money that would be generated by a project at a given discount rate. It is an absolute measure by discounting the net cash inflows. The NPV in Arghandab district at 10 per cent discount rate was Rs.82,081 and Dand district it was Rs.26,441. The formal selection criterion of NPV is to accept both districts of Arghandab and Dand with positive values. Applying this principle, the Net Present Value (NPV) of pomegranate production clearly indicates financial feasibility of investment of both districts of Arghandab and Dand. Benefit - Cost (BC) Ratio is another tool for appraising the worthiness of investment and it helps to as certain the profitability of an enterprise. The initial investment was made to establish the pomegranate orchard and maintenance costs incurred during the subsequent years of establishment. The decision in BC Ratio frame work is to select the projects, where the ratio is more than one. The BC Ratio in Arghandab and Dand districts are l.18 and 1.05 respectively at 10 per cent discount rate, which is more than unity indicating the worthiness of investment on these units. Internal Rate of Return (IRR) is considered to be very suitable measure for evaluating the profitability of investment on different projects. The IRR is the rates of discount at which the net present worth of project is Zero or the discount returns. It is superior over the other measures since it takes into consideration the reinvestment opportunities of enterprises during the life span. The formal selection criterion of IRR is to accept the projects with IRR more than the opportunity cost of capital. The Internal Rate of Return being 18 percent in Arghandab district and 13 per cent in Dand district for pomegranate production, which were higher than the interest rate, which the farmers could borrow from lending agencies and invest on these units. In other words, it is the average earning power of money invested on pomegranate production during its life span. Since IRR was more than the opportunity cost of capital, it clearly indicated that investment on pomegranate production is financially feasible in both districts of Arghandab and Dand.

TABLE 5

Financial viability indicates of pomegranate production in Dand district

Years	Total cost	Gross returns	Net returns	Deflated total cost	Deflated gross return	Deflated net return	Discounting factor at 10%
Year I	91,300	0	-91,300	83000	0	-83000	0.909
Year II	82,000	0	-82,000	67768.595	0	-67768.5	0.826
Year III	87,500	0	-87,500	65740.045	0	-65740.0	0.751
Year IV	95,000	108,100	13,100	64886.278	73833.75	8947.47	0.683
Year V	102,000	137,500	35,500	63333.975	85376.68	22042.70	0.620
Year VI	107,000	262,500	155,500	60398.710	148174.4	87775.69	0.564
Year VII	119,000	361,000	242,000	61065.816	185250.0	124184.2	0.513
Total	683,800	869,100	185,300	466,193	492,635	26,442	

NPV 26441.50385; B-C ratio 1.056717883; IRR 13%

(*Source* : Survey data, 2024)

The findings of this study clearly demonstrate the economic viability of Pomegranate (*Punica granatum*), cultivation in the Arghandab and Dand districts of Kandahar province, Afghanistan. As a major fruit crop, pomegranate plays a significant role in the livelihood of farmers and contributes notably to the agricultural economy. The analysis revealed that both districts yielded positive Net Present Values (NPV) at a 10 per cent discount rate Rs.82,081 in Arghandab and Rs.26,441 in Dand - indicating that investments in pomegranate orchards are financially viability. Benefit-Cost Ratios (BCR) of 1.18 and 1.05 in Arghandab and Dand districts respectively further confirm the profitability of the investments, as values above unity reflect worth while returns. Additionally, the Internal Rate of Return (IRR) surpassed typical lending rates, at 18 per cent for Arghandab and 13 per cent for Dand districts, suggesting that the returns from pomegranate production exceed the cost of capital for farmers. Yield performance supported these findings, with increasing productivity from the fourth to the seventh year. In Arghandab, yields rose from 5,000 kg/ha to 10,000 kg/ha, while in Dand, yields increased from 4,700 kg/ha to 9,500 kg/ha, resulting in corresponding rises in gross income. Net incomes followed a similar trend, reaching Rs.290,000/ha in the seventh year. The primary cost component identified was the cost of manure amounting to 37.10 per cent in Arghandab and 33.95 per cent in Dand. Overall, the study concludes that pomegranate cultivation in Arghandab and Dand districts offers a profitable and sustainable investment opportunity for Afghan farmers, with strong financial indicators and increasing returns over time.

REFERENCES

AHIRE, S. C., 2012, Cost, Yield, Profit Analysis of Pomegranate Variety in Dhule District. *Journal of Scientific Research*, pp. : 120 - 123.

BACHHAV, N. B., 2020, Economics of Pomegranate Fruit Production in Drought Prone Region of Nashik District. *Journal of Emerging Technologies and Innovative Research,*, pp. : 438 - 441.

BROWN, D., 2018, Pomegranate Market in Afghanistan. *Journal of Agricultural-Science*, pp. : 89 - 102.

CANAKCI, M., 2010, Energy use pattern and economic analyses of pomegranate cultivation in Turkey. *African Journal of Agricultural Research*, pp. : 491 - 499.

CHAUDHARY, R. A., 2013, Profitability of mango cultivation in drought prone areas-a case study of Ananthpur district of Andhra Pradesh. *Journal of Horticultural Sciences*, pp. : 628 - 642.

D. S. P., 2017, Costs, returns and profitability of pomegranateproduction in India. *International Journal of Plant Science*, pp. : 65 - 73.

EKBOTE AND K. V. ASHALATHA, 2011, Investment pattern and maintenance cost in pomegranate. *Karnataka Journal of Agricultural Science*, pp. : 164 - 169.

FAHIMULLAH WARDAK, M. N. VENKATARAMAN, B. N. PRADEEP BABU AND MAHIN SHARIF, 2025, Analyzing the growth, market instability and export competitiveness of Afghanistan Raisins compared to leading global exporters. *Mysore J. of Agri. Sciences*, **59** (1) : 55 - 66.

GANGWAR, L. S. DINESH, S. AND GAUTAM, M., 2010, Economic evaluation of peach cultivation on North Indian plains. *Agricultural Economics Research Review*, pp. : 21 - 32.

GHAFURY, N., 2014, Problems in suppy chain of Pomegranate. *Indian Journal Agricultural Marketing*, pp. : 88 - 91.

GHULAM, R., 2013, *Market apportunity of Pomegranate production in Afghanistan.* Kabul: Report of the Ministry of Agriculture, Irrigation and Livestock of Afghanistan.

GORE, M. H., NAGARGOJE, S. R. AND PERKE, D. S., 2017, Costs, returns and profitability of pomegranate production in Ahmednagar district. *Agric. Update*, pp. : 66 - 73.

KHUNT, K. A., GAJIPARA, H. M., GADHVI, B. K AND VEKARIYA, S. B., 2009, Economics of production and marketing of pomegranate. *Indian Journal of Agricultural Marketing*, 100-109.

Mᴜsᴛᴀғᴀ, S., 2010, Pomegranate Production in Afghanistan. *Research Journal of Agriculture*, 11-25.

S. S. Pʀᴏᴍᴏᴅ Nᴀʏᴀᴋ, Sɪᴅᴅᴀɪᴀʜ ᴀɴᴅ K. M. Sᴜᴍᴀɴ, 2023, Trade performance of fish and crustaceans, molluscs and other aquatic invertebrates of India. *Mysore J. Agric. Sci.,* **59** (3) : 215 - 226.

Sᴀʟᴀᴍ, R., 2016, *Cost and Benefit Ratio of Pomegranate production.* Kabul: Ministry of Agriculture, Irrigation and Livestock of Afghanistan.

Sᴀʏᴇᴇᴅ, W., 2012, Pomegranate Market in Afghanistan. *Indian Journal of Agricultural Economics*, 5-14.