

A REVIEW

Export promotion of pomegranate from India

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ABSTRACT

The study is concerned with the export promotion of pomegranate from India. The study examines compound growth rate of export of pomegranate from India from 1987-88 to 2009-10. The study revealed that the total quantity of pomegranate exported from India showed a significant and positive compound growth rate for all the three periods. The highest growth was observed during pre-WTO period (42.33 %) followed by overall period (20.61%) and post-WTO period (20.52%). As far as the value of export was concerned, highest growth was observed during the pre-WTO period with 50.84 per cent followed by post-WTO period (28.09%) and overall period (27.86%). Also the study examines variation in export of pomegranate from India. It can be observed from the results that the CV (82.84%) was higher in terms of quantity during post-WTO period compared to pre-WTO period (73.51%). Similarly, in terms of value, The CV was again higher in post-WTO period (100.56%) as compared to pre-WTO period (82.30%). The CV for overall period was relatively higher than pre and post-WTO periods both in terms of quantity and value with 113.43 and 138.60 per cent, respectively. Further the study assess predicted and actual share of different countries in India pomegranate export during 1988-2010. A close look at the observed and estimated shares of pomegranate revealed that the difference was by and large small. That means the observed proportions of export shares were in consistent with the predicted shares of exports, which were derived from the Markov process validating the use of the Markov chain model for estimating the share of different countries by using transitional probability matrix. UAE was the major importer since 1988-92 with a share of 41.13 per cent which rose to 63.32 per cent in 2001-04, but as per the projection the share of UAE remained around 47 to 50 per cent in all the triennium periods. Also the assess the SWOT for the same. Besides also study includes various problems faced by the growers and marketers of pomegranate.

KEY WORDS : Production, Export promotion, Variability in export, SWOT analysis, Problems

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About the fruit :

Pomegranate (*Punica granatum* L.) belongs to family *Punicaceae* and it is a fruit of the tropical and

sub-tropical region of the world. The fruit is native of Iran and extensively cultivated in Mediterranean countries like Spain, Egypt, Iran, Burma, china and India. Pomegranate is a high value crop. It is well suited to the topography and agro-climate of arid and semi-arid regions. Major growing varieties are Ganesh, Ruby, Arakta and Bhagwa. It is also chief source of income (profits upto 1.5 laves/ha/annum have been demonstrated by some growers).It is a highly remunerative crop for replacing subsistence farming and thus alleviating poverty

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levels, particularly in regions such as Maharashtra. It has high potentials to develop wastelands widely available in the region and an ideal crop for diversification. Moreover, it can make higher contribution to GDP with a small area.

It has different uses like it has therapeutic value and also used in leather and dyeing industries. Rich source of nutrients like sodium, phosphorus and have different vitamin content etc. The calorific value of the pomegranate fruit is 65 g. Its juice is easily digestible.

Economic importance of the fruit	
Content	Per 100g
Calories	83g
Total fat	0g
Saturated fat	0
Cholesterol	0
Sodium	3mg
Total carbohydrate	19g
Dietary fibre	4g
Calcium	1%
Vitamin C	17%
Iron	2%

NHB

Global scenario :

The cultivation of pomegranate was introduced quite early in the Mediterranean and eastern countries like India. At the global level, Iran is the world's largest

producer and exporter of pomegranates with an estimated annual production of 670,000 tons, In addition to Iran, other countries including India, Turkey, Spain, Tunisia, Morocco, Afghanistan, China, Greece, Japan, France, Armenia, Cyprus, Egypt, Italy and Palestine also cultivate this product. The main exporters are Thailand, Spain, the Netherlands, Hong Kong and France. The major export destination for India's pomegranates are UAE, the Netherlands, UK, Belgium and Saudi Arabia.

Indian scenario :

India is the largest producer of pomegranates in the world, but it has only 7 per cent share of total world exports. At present, excellent cultivars with good quality fruits are available, thus, India can supply almost throughout the year and can become a good player in its export.

Showing the area, production and productivity of pomegranate in India :

According to the data published by National Horticulture Board of India in Table 1 there is a undersized decrease in the area of pomegranate cultivation in India from 109.00 thousand ha in 2008-09 to 107.00 thousand ha in 2010-11; similarly, the production has decreased from 807.00 thousand tons to 743.00 thousand tons during the same period.

The total production of pomegranate is concentrated mainly in the Western Maharashtra, Karnataka, Gujarat,

Year	Area in 000' HA	Production in 000'MT	Productivity (MT/HA)
2008-09	109.00	807.00	7.40
2009-10	125.00	820.00	6.60
2010-11	107.00	743.00	6.90

Anonymous

State	State wise area, production and productivity of pomegranate									% Share of production
	Area in 000' ha			Production in 000'MT			Productivity ha/MT			
	2008-09		Yield	2009-10		Yield	2010-11		Yield	
Area	Prod.	Area		Prod.	Area		Prod.			
Maharashtra	82.00	550	6.71	98.90	555.50	5.62	82.00	492.00	6.00	66.21
Karnataka	14.30	138.10	9.66	13.20	138.50	10.49	13.60	142.60	10.49	19.19
Gujarat	4.00	39.30	9.83	4.40	45.60	10.36	5.80	60.30	10.40	8.11
A.P	6.50	64.70	9.95	5.60	56.40	10.07	2.80	27.80	9.93	3.74
Tamil Nadu	0.40	10.00	25.00	0.40	17.50	43.75	0.50	12.70	25.40	1.71
Others	2.00	5.10	2.55	2.50	6.90	2.76	2.60	7.70	2.96	1.04
Total	109.20	807.20	7.39	125.00	820.30	6.56	107.30	743.10	6.93	100.00

Anonymous, 2007

Andhra Pradesh, Tamil Nadu and Rajasthan in India. Maharashtra is the leading State with 82 thousands hectare area under pomegranate cultivation, followed by Karnataka and Gujarat with 13.6 thousand ha and 5.8 thousand ha, respectively, Andhra Pradesh and Tamil Nadu stood at fourth and fifth position with 2.8 and 0.5 thousand ha of pomegranate cultivation in India.

Area, production and productivity of leading pomegranate growing states in India :

State wise area, production and productivity of pomegranate :

Here, the Table 2 shows state wise area, production and productivity of pomegranate for the different three years and from this table we can observe that the highest area covered under pomegranate cultivation and production seen in Maharashtra and productivity is highest in Tamil Nadu.

Productivity of pomegranate in India :

From the Fig.1 we observe that the Indian average is 7044 kg/ha. Only Maharashtra is below Indian average

whereas all other states are showing a better average than Indian average. But because of very less contribution in terms of production from other states, the overall average is not that good. Encouraging aspect in this is that the areas which are taking up pomegranate cultivation are having high yields and their contribution

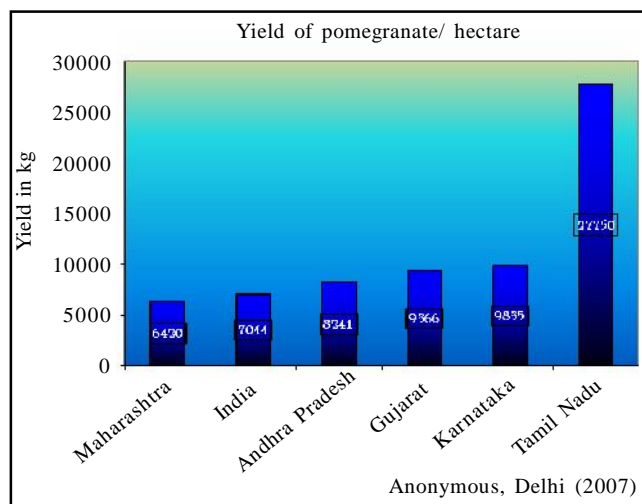


Fig. 1 : Productivity of pomegranate in India

Year	Production (tons)	Export (tons)	Export as % of production
1987-88	81150	318.49	0.4
1988-89	83410	833.06	1.0
1989-90	85220	824.63	1.0
1990-91	87240	795.94	0.9
1991-92	127010	1790.32	1.4
1992-93	93840	1627.94	1.7
1993-94	110400	2623.24	2.4
1994-95	129900	4144.49	3.2
1995-96	123400	4255.23	3.4
1996-97	98670	4768.39	4.8
1997-98	113640	5599.73	4.9
1998-99	151110	4239.15	2.8
1999-00	195856	5726.37	2.9
2000-01	245689	4455.54	1.8
2001-02	345586	4773.70	1.4
2002-03	458878	6303.80	1.4
2003-04	664900	10315.97	1.6
2004-05	792456	14039.99	1.8
2005-06	849100	19652.15	2.3
2006-07	839650	21670.43	2.6
2007-08	884129	35175.17	4.0
2008-09	807173	34811.21	4.3
2009-10	820970	33415.08	4.1

Mundinamani and Koujalagi (2012)

is increasing which is further supporting India's scope. Also the National Resource Centre for pomegranate at Sholapur is aiming development of diseases resistant varieties and high yielding varieties.

Export of pomegranate from India :

The percentage of export to the production has also increased from the year 1987-88 to 2009-10 though sales channels of the pomegranate are currently directed all over the world, due to their origin, they are mostly consumed in the Middle and Far East as well as in Mediterranean countries and the United Kingdom. Consumption is dispersed and slow to take off, as western consumers consider it exotic and difficult to eat.

Export of pomegranate from India :

The results from the Table 3 revealed that the production of pomegranate in India during 1987-88 was about 81,150 tons and quantity exported was about 318.49 tons accounting for 0.4 per cent of production. During the year 2003-04 the production was about 6,64,900 tons and the quantity exported was 10,315.97 tons accounting for 1.6 per cent of production which increased during the year 2009-10 with production of 8,20,970 tons and

correspondingly the export was 33,415.08 tons (4.1%). It could be observed from the table that in the recent years in tune with the increase in production there is an increase in the quantity exported.

Production and export of pomegranate :

Here Fig. 2 shows that production and export of pomegranate in tons from the year 1987-88 to 2009-10. From below graph we can observe that here in the year 2007-08 the production and export was highest.

Export of pomegranate as a percentage of production :

Here the below Fig. 3 shows export of pomegranate as a percentage of production from the year 1987-88 to 2009-10. Here in the year 1996-97 and 1997-98 the export is highest as a percentage of export.

Country-wise export of pomegranate :

Here Fig. 5 shows that country wise export of pomegranate in terms of volume and value. The Fig. shows that the major importer country of Indian pomegranate is UAE with having the approx share 17,200 tons of pomegranates at Rs.17,389 million followed by the countries like Netherland, Bangladesh etc.

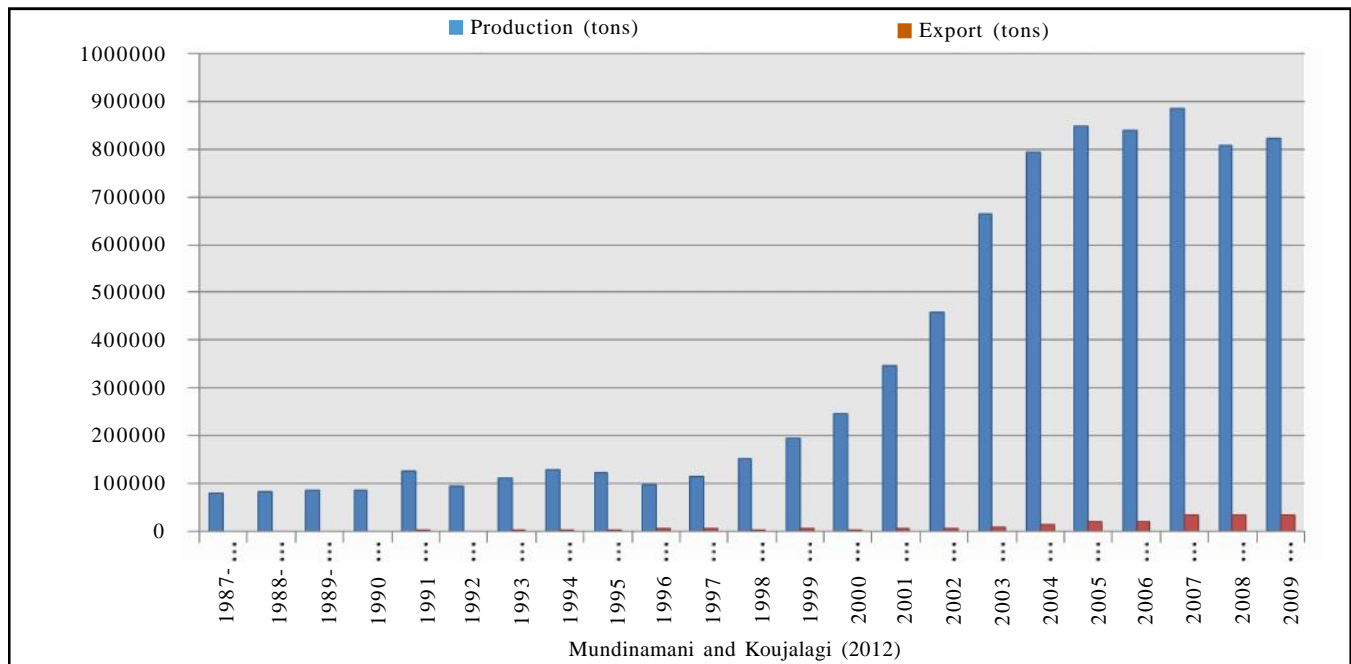


Fig. 2 : Shows that production and export of pomegranate in tons from the year 1987 to 2009-10

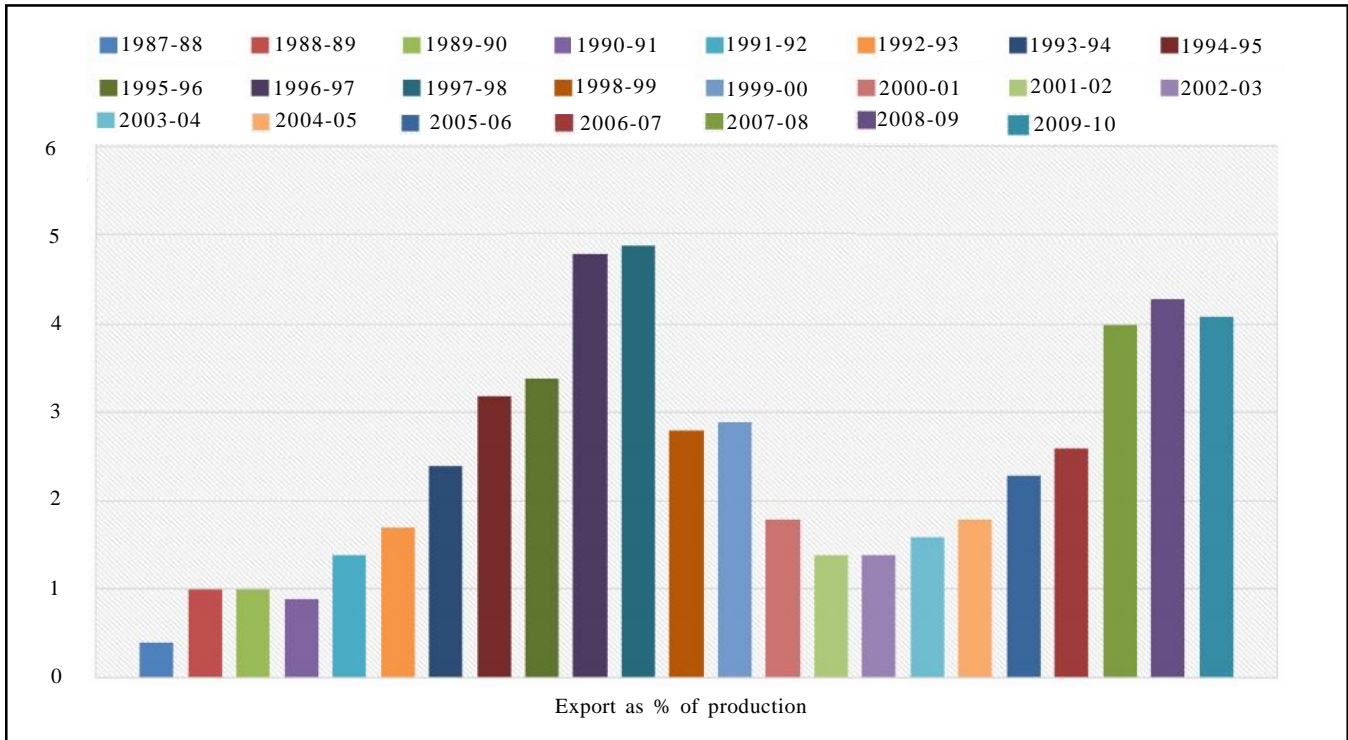


Fig. 3 : Shows export of pomegranate as a percentage of production from the year 1987-88 to 2009-10

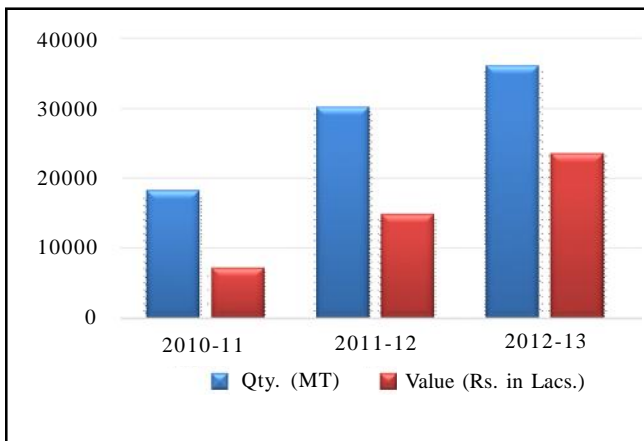


Fig. 4 : Export of pomegranate from India

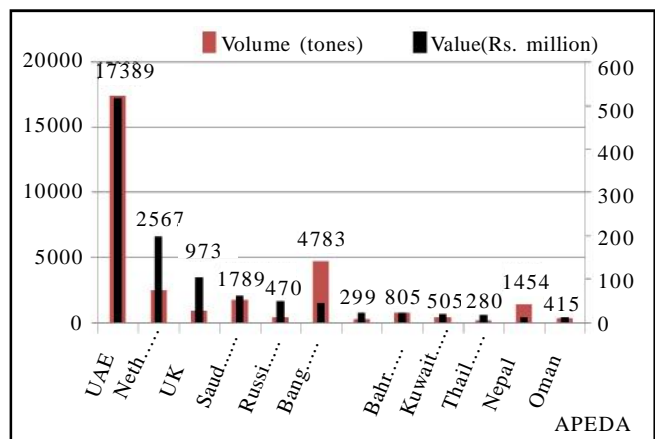


Fig. 5 : Shows that country wise export of pomegranate in terms of volume and value

Country wise export of pomegranate from India :

Here, the Table 4 shows country wise export of pomegranate from India for different three years. And the table revealed that UAE is the major importing country of Indian pomegranate.

Compound growth rate of export of pomegranate from India (1987-88 to 2009-10) :

The compound growth rates of pomegranate

export were computed for the pre-WTO, post-WTO and the overall periods (1987-88 to 2009-10) and the results are presented in Table 5. The results from the Table revealed that the total quantity of pomegranate exported from India showed a significant and positive compound growth rate for all the three periods. The highest growth was observed during pre-WTO period (42.33%) followed by overall period (20.61%) and post-WTO period (20.52%). As far as the value of

export was concerned, highest growth was observed during the pre-WTO period with 50.84 per cent followed by post-WTO period (28.09%) and overall period (27.86%).

Variation in export of pomegranate from India (1987-88 to 2009-10) :

The instability in the export of pomegranate both in terms of quantity and value were assessed through the co-efficient of variation (CV) and the results are presented in the Table 6. It can be observed from the Table 6 that the CV (82.84%) was higher in terms of quantity during post-WTO period compared to pre-WTO period (73.51%). Similarly, in terms of value, The CV was again higher in post-WTO period (100.56%) as

compared to pre-WTO period (82.30%). The CV for overall period was relatively higher than pre and post-WTO periods both in terms of quantity and value with 113.43 and 138.60 per cent, respectively.

Transitional probability matrix of pomegranate export from India during pre-WTO period (1987-88 to 1995-96) :

The transitional probability matrix of pomegranate export for the pre-WTO period is presented in the Table 7. There were five countries importing Indian pomegranate in large quantities, namely, Saudi Arabia, U.K., UAE, Bangladesh and Bahrain. The exports to the remaining countries were pooled under ‘others’ category. It was evident from the Table 7 that

Table 4 :Country wise export of pmegranate from India

Country	Qty. in MT , Value in Rs.Lacs						Per cent share in value
	2009-10		2010-11		2011-12		
	Qty.	Value	Qty.	Value	Qty.	Value	
UAE	17350	5170.01	11229.57	3884.42	15899.74	6416.44	43.57
Bangladesh	4783.71	468.16	1964.84	252.55	4593.46	2383.70	16.18
Netherland	2567.71	1985.31	389.07	330.17	732.69	1028.17	6.98
UK	973.20	1051.47	531.27	825.45	890.85	975.31	6.62
Saudi Arab	1789.35	627.77	1182.83	368.44	2196.63	870.39	5.91
Russia	470.63	521.48	186.46	279.87	398.08	573.32	3.89
Thailand	280.26	195.99	104.94	135.50	298.07	310.61	2.11
Nepal	1447.64	157.11	819.18	111.07	1438.26	246.85	1.68
Kuwait	505.77	222.43	204.40	102.48	489.65	236.30	1.60
Oman	415.58	151.55	310.92	85.85	391.87	198.95	1.35
Others country	2785.08	1391.53	1288.18	719.44	2832.97	1487.80	10.10
Total	33368.93	11942.81	18211.66	7095.24	30162.27	14727.84	100.00

Anonymous (2012)

Table 5 : Compound growth rate of export of pomegranate from India (1987-88 to 2009-10)

Sr. No.	Particulars	Compound growth rate		
		Pre-WTO (1987-88 to 1995-96)	Post-WTO (1996-97 to 2009-10)	Overall (1987-88 to 2009-10)
1.	Quantity (kg)	42.33	20.52	20.61
2.	Value (Rs.)	50.84	28.09	27.86

Mundinamani and Koujalagi (2012)

Table 6 : Variation in export of pomegranate from India (1987-88 to 2009-10)

Sr.No.	Particulars	Co-efficient of variation (%)		
		Pre-WTO (1987-88 to 1995-96)	Post-WTO (1996-97 to 2009-10)	Overall (1987-88 to 2009-10)
1.	Quantity (kg)	73.51	82.84	113.43
2.	Value(Rs.)	82.30	100.56	138.60

Mundinamani and Koujalagi (2012)

Bangladesh, Saudi Arabia (SA) and UAE were the stable importers of Indian pomegranate as reflected in high probability of retention of 0.80107, 0.75572 and 0.65359, respectively *i.e.*, the probability that Bangladesh, Saudi Arabia and UAE retained their export share of 80.11, 75.57 and 65.35 per cent, respectively during pre-WTO period. On the other hand Bahrain could able to retain its share only to the extent of 0.5 per cent and UK had a probability of retention of zero indicating unstable importer of Indian pomegranate. It is important to note that other countries could not able to retain their share during pre-WTO period as many countries were not consistently importing the Indian pomegranate.

Transitional probability matrix of pomegranate export from India during post-WTO period (1996-97 to 2009-10) :

The transitional probability matrix of pomegranate

export to different countries during post-WTO period is presented in Table 8. The Table 8 revealed that the UAE and Bangladesh continued to dominate in the Indian pomegranate export with a high probability of retention of 0.74560 and 0.52354. Similarly, Bahrain and other countries also joined the list with probability retention of 0.42155 and 0.43607, respectively during the post-WTO period. On the contrary, Saudi Arabia had probability of retention of zero indicating unstable importer of Indian pomegranate during the post-WTO period. It was interesting to note that unlike in the pre-WTO period, other countries could able to retain their share to the extent of 43.60 per cent in post-WTO period. This phenomenon may be due to increased export of Indian pomegranate to countries like Netherlands, Belgium and Germany in the recent years. Similarly Bahrain increased its retention share to 42.15 per cent. UAE in addition to having high probability of retention of its own share was

Countries	Saudi Arabia	U.A. E	U.K	Bangladesh	Bahrain	Others
Saudi Arabia	0.75572	0.00000	0.00000	0.00000	0.02495	0.21932
U.A. E	0.00607	0.65359	0.00000	0.23099	0.08426	0.02509
U.K	0.00000	0.91723	0.00000	0.00000	0.08277	0.00000
Bangladesh	0.00000	0.00000	0.14475	0.80107	0.00000	0.05418
Bahrain	0.43501	0.55912	0.00000	0.00000	0.00587	0.00000
Others	0.00000	0.70240	0.00000	0.00000	0.29760	0.00000

Mundinamani and Koujalagi (2012)

Countries	Saudi Arabia	U.A. E	U.K	Bangladesh	Bahrain	Others
Saudi Arabia	0.00000	0.90571	0.00000	0.00000	0.01426	0.08002
U.A. E	0.03167	0.74560	0.03429	0.00000	0.03273	0.15571
U.K	0.00000	0.00000	0.00629	0.00000	0.00000	0.99371
Bangladesh	0.34296	0.00000	0.06704	0.52354	0.04409	0.02237
Bahrain	0.00000	0.00000	0.57845	0.00000	0.42155	0.00000
Others	0.06088	0.25391	0.04387	0.20527	0.00000	0.43607

Mundinamani and Koujalagi (2012)

Countries	Saudi Arabia	U.A. E	U.K	Bangladesh	Bahrain	Others
Saudi Arabia	0.11354	0.16849	0.00000	0.53846	0.17951	0.00000
U.A. E	0.00000	0.69624	0.10806	0.08568	0.02614	0.08387
U.K	0.00000	0.16212	0.00000	0.00000	0.00000	0.83788
Bangladesh	0.36612	0.63219	0.00000	0.00000	0.00169	0.00000
Bahrain	0.82772	0.00000	0.00000	0.15133	0.02095	0.00000
Others	0.00000	0.10253	0.05326	0.00000	0.00000	0.84420

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also likely to gain mainly from Saudi Arabia and other countries with probability of gain of 0.90571 and 0.25391, respectively.

Transitional probability matrix of pomegranate export during overall period (1987-88 to 2009-10):

The overall period comprises the triennium average data for the period 1987-88 to 2009-10. The transitional probability matrix was worked out using the triennium averages for the data of the above said period Table 9. It is observed from the Table 9 that other countries and UAE were the stable importers of Indian pomegranate as reflected in high probability of retention at 0.84420 and 0.69624, respectively. Saudi Arabia and Bahrain were able to retain their share only to the extent of 11.35 per cent and 2.10 per cent, respectively. On the contrary, UK and Bangladesh were having a probability of retention of zero indicating that they were the unstable importers of Indian pomegranate during the overall period. The other countries and UAE showed stability in the import of Indian pomegranate during the overall period by gaining its share from UAE (0.08387) and U.K (0.83788). Similarly UAE gained from Bangladesh, Saudi Arabia UK and other countries with transfer probability of 0.63219 from Bangladesh, 0.16849 from Saudi Arabia, 0.16212 from UK and 0.10253 from other countries *i.e.*, the probability that UAE would gain in the export share

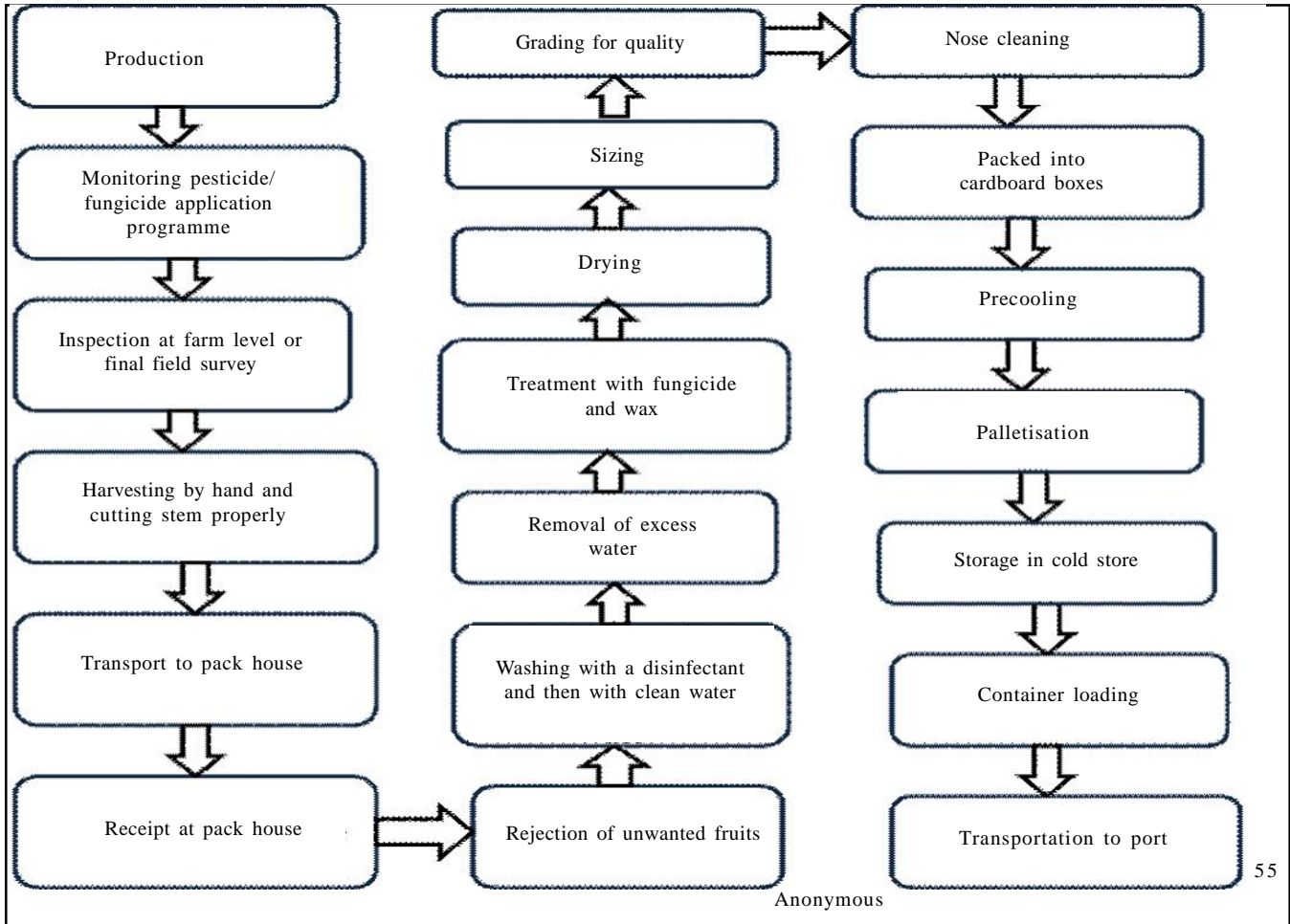
of Indian pomegranate during overall period was at the cost of Bangladesh, Saudi Arabia, UK and other countries. On the other hand UK and Bangladesh which had zero probability of retention would likely to gain from some major countries *i.e.*, UK from UAE (0.10806) and Bangladesh from Saudi Arabia (0.53846).

Predicted and actual share of different countries in Indian pomegranate export during (1988-2010) :

The export shares of Indian pomegranate to different countries were estimated for the triennium averages of the period 1992-95, 1995-98, 1998-01, 2001-04, 2004-07, 2007-10 and 2010-13 by using transitional probability matrix of overall period and the same were compared with the observed export shares. A close look at the observed and estimated shares of pomegranate revealed that the difference was by and large small. That means the observed proportions of export shares were in consistent with the predicted shares of exports, which were derived from the Markov process validating the use of the Markov chain model for estimating the share of different countries by using transitional probability matrix. UAE was the major importer since 1988-92 with a share of 41.13 per cent which rose to 63.32 per cent in 2001-04, but as per the projection the share of UAE remained around 47 to 50 per cent in all the triennium periods. According to the projection using TPM, during

Table 10 : Predicted and actual share of different countries in Indian pomegranate export during 1988-2010						
Year	Saudi Arabia	U.A. E	U.K	Bangladesh	Bahrain	Others
Actual share						
1988-92	27.42	41.13	0.72	13.25	8.60	8.88
1992-95	22.51	42.66	1.53	19.59	6.20	7.51
1995-98	14.86	37.88	5.01	26.40	4.66	11.20
1998-01	15.21	54.37	4.69	5.09	3.80	16.83
2001-04	3.72	63.32	4.65	4.72	4.24	19.34
2004-07	5.66	47.97	8.39	8.07	2.42	27.49
2007-10	6.39	43.31	3.94	10.97	1.80	33.59
Predicted share						
1992-95	16.01	42.66	4.15	19.59	6.20	11.39
1995-98	15.27	47.21	4.66	16.35	5.13	11.20
1998-01	15.21	47.11	4.69	12.14	3.77	16.82
2001-04	7.17	47.14	4.73	14.26	4.24	22.46
2004-07	6.17	52.69	5.43	8.07	2.42	25.21
2007-10	5.74	43.31	4.39	10.64	2.33	33.59
2010-13	6.21	41.13	4.19	12.29	2.32	33.86

Mundinamani and Koujalagi (2012)



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Anonymous

Fig. 6 : Critical observations on export

2010-13 period five major countries considered together would likely to have 66.14 per cent of their share in the Indian pomegranate export. The difference in export of shares between observed and expected values were by and large found to be minimum and small. If there are some instances of differences in few years they are mainly due to limitations of the model that the present estimates depend only on the previous year's observations.

Quality criteria :

- Size of the fruit
- Shape of the fruit
- Colour of the fruit
- Sunburn effect
- Thrips attack
- Mealy bug
- Bacterial spot

- Sugar content.

Forms used in procurement process :

There are four forms which are used during procurement process as follows:

Procurement order slip :

It is given by the company to the farmer or other source of the produce. Terms and conditions, quality and quantity requirements of the company are all mentioned in this procurement order slip.

Goods received note :

This is given by the company after receiving the produce from the farmer or service provider. It gives the details about the how much material received and how much rejected and also description of the material if any.

Weighment sheet :

As the name describes, it tells about the Weighment details of the produce.

Delivery challan :

It has the details about the shipping location, type of delivery whether it is a sales dispatch, stock transfer, wastage disposal etc. It also mentions the details of the vehicle by which it is being transported to the shipping location. The containers filled with the material are then exported to different parts of the world like United Kingdom, Middle Eastern countries and some European countries.

Table 11 : Procurement price (It varies according variety)

Variety	Approx. price (in Rs./kg)
Bhagwa	40- 60

Grading:

Table 12 : International grading based on size and colour

Sr. No.	Name given	Description of the fruit
1.	Super size	Fruits are free from spots and fruit weight is more than 750 g
2.	King size	Fruits are attractive and fruit weight is 500-700 g
3.	Queen size	Fruits are attractive, red and fruit weight is 400-500 g
4.	Prince size	Fruits are attractive, red and fruit weight is 300-400 g

Packaging:

Table 13 : Standard for packaging

Sr. No.	4 kg box	5 kg box
1.	375 x 275 x 100 mm	300 x 100 mm

Retail industry carton for export



Filler material :



Sizing :

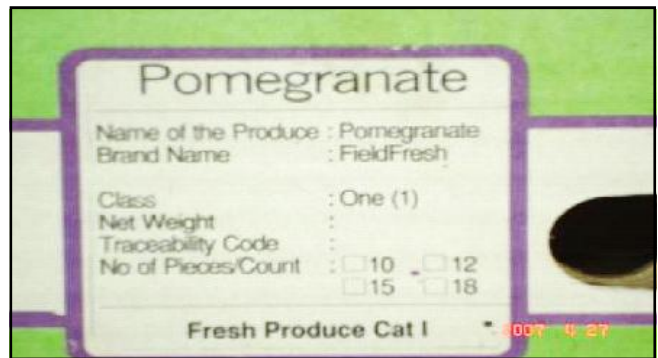
Table 14 : Sizing standards

Size code	Weight in g (minimum)	Diameter in mm (minimum)
A	400	90
B	350	80
C	300	70
D	250	60
E	200	50

Labeling :

After the packing is done, the following details are marked by the company person on the carton.

- Net weight
- Fruit count inside the carton.
- The cold storage where it is being sent.
- And a stamp impression.



For example if the impression shows 005970420, 0059 stands for the farmer. Code given by the Company, 7 stands for the year 2007, 04 stands for the month April and the last two digits 20 stand for the date. This helps in tracing back the produce of a particular carton, to know the field from which it was brought.

Storage :

Table 15 : Storage standards	
Temperature	5 - 7°C
Relative humidity	90 - 95%
Storage period	2 - 3 months

Anonymous, 2012

Documents require for export :*Documents related to goods :*

- Invoice
- Packing list
- Certificate of origin.

Documents related to shipment :

- Mate receipt
- Shipping bill
- Bill of handing
- Airway bill

Documents related to payment :

- Letter of credit (L/C)
- Bill of exchange.

Documents related to quality of goods :

- Phytosanitary certificate
- GLOBALGAP certification
- Health certificate.

Organic certification :

- Certificate indicating material produce is based on organic farming.

Documents related to foreign exchange regulations:*GR form :*

Documents required by RBI which assures to RBI

that the exporter will realize the proceeds of goods within 180 days from the date of shipment.

Other document :

- Bank realization certification (BRC): This is the advice given by foreign exchange bank after the realization of money from importer.

Prices for pomegranate in potential market for India :

Here we take an example of European union as a potential market for pomegranate and there the annual average price range is 2.52 to 4.08 in USD/kg and in INR/kg 113.4 to 183.6.

Table 16 : Prices for pomegranate in EU		
Country	Annual average price range (2008)	
	Currency	
European union	USD/kg	2.52 to 4.08
	INR/kg	113.4 to 183.6

Anonymous, 2012

Charges for harvesting, packing, transport :

Here, the Table 17 shows the costs for 20 kg and 40 kg container and from the Table 17 we can observe that the all other costs are same except inland

Table 17 : Charges for harvesting, packing, transport			
Particulars (Cost per kg)	20 container (Rs./kg)	40 container (Rs./kg)	
Packing cost	5.2	5.2	
Precooling + cold storage	3	3	
Inland transportation charges	3.5	1.7	
Labour cost	1	1	
Total	12.7	10.9	

Anonymous, 2012

Table 18: Strengths of pomegranate export as per the opinion of exporters						
Sr. No.	Particulars	Unit	Strongly disagree	Disagree	Agree	Strongly agree
1.	Large production of pomegranate	Number	-	-	6	4
		Per cent	-	-	60.00	40.00
2.	High yielding technologies are already standardized by IIHR, Bangalore, NRC, Sholapur.	Number	1	2	5	2
		Per cent	10.00	20.00	50.00	20.00
3.	Drip irrigation subsidy (75%) by NHM in the state led to expansion in area	Number	-	1	4	5
		Per cent	-	10.00	40.00	50.00
4.	Recently NHM is providing financial help for adoption of good management practices for pomegranate crop	Number	-	-	4	6
		Per cent	-	-	40.00	60.00
5.	Indian cultivars are sweet to taste with low acid content	Number	-	-	4	6
		Per cent	-	-	40.00	60.00

Table 19 : Weaknesses of pomegranate export as per the opinion of exporters

Sr. No.	Particulars	Unit	Strongly disagree	Disagree	Agree	Strongly agree
1.	Non-availability of disease free material	Number	-	-	3	7
		Per cent	-	-	30.00	70.00
2.	Extension and dissemination of technology is weak	Number	-	1	4	5
		Per cent	-	10.00	40.00	50.00
3.	Farmers/exporters have no access to the trends in export and import prices	Number	-	1	5	4
		Per cent	-	10.00	50.00	40.00
4.	Non-availability of post harvest infrastructure facilities	Number	-	1	4	5
		Per cent	-	10.00	40.00	50.00
5.	Lack of information with the growers regarding quality production for export	Number	1	1	4	4
		Per cent	10.00	10.00	40.00	40.00

Mundinamani and Koujalagi (2012)

Table 20 : Opportunities of pomegranate export as per the opinion of exporters

Sr. No.	Particulars	Unit	Strongly disagree	Disagree	Agree	Strongly agree
1.	The State has good varieties and can supply almost throughout the year.	Number	-	1	4	5
		Per cent	-	10.00	40.00	50.00
2.	Spain is the biggest exporter but does not supply during April to July, which could be en-cashed by our State.	Number	-	-	4	6
		Per cent	-	-	40.00	60.00
3.	Indian Pomegranates have an edge over Spanish fruits as our fruits are low in acids making them suitable for fresh consumption.	Number	-	-	4	6
		Per cent	-	-	40.00	60.00
4.	Iran is the main competitor to India when exporting to Gulf. But its supplies are only during October to December, which could be en-cashed.	Number	-	-	4	6
		Per cent	-	-	40.00	60.00

Mundinamani and Koujalagi (2012)

Table 21 : Threats of pomegranate export as per the opinion of exporters

Sr. No.	Particulars	Unit	Strongly disagree	Disagree	Agree	Strongly agree
1.	Severe attack of bacterial blight disease	Number	-	-	-	10
		Per cent	-	-	-	100.00
2.	Entry of distant market purchasers at the time of harvesting.	Number	-	-	4	6
		Per cent	-	-	40.00	60.00
3.	Chemical residue problem in fruit exports.	Number	-	-	1	9
		Per cent	-	-	10.00	90.00
4.	Spain and Iran, the major competitors are able to supply at cheaper price due to low freight.	Number	-	1	3	6
		Per cent	-	10.00	30.00	60.00

Table 22 : Problems of growers

(n=100)

Sr. No.	Particulars	No. of growers	Per cent
1.	Attack of bacterial blight disease	100	100.00
2.	Aril browning	75	75.00
3.	Shot hole borer	20	20.00
4.	Problem of wilt	16	16.00
5.	Labour scarcity	82	82.00
6.	Inadequate irrigation facility	78	78.00
7.	Problem of electricity supply	75	75.00
8.	Inputs are costly (viz., liquid fertilizer, insecticides, fungicides etc.)	33	33.00
9.	Non-availability of disease free seedlings	60	60.00
10.	Inadequate information about exportable quality of fruit production	42	42.00
11.	Financial problem	30	30.00

Mundinamani and Koujalagi (2012)

transportation cost, it reduces for 40 kg container.

- SWOT analysis
- Problems

Problems faced in production of pomegranate by the growers :

The problems faced by the growers in the production of pomegranate are depicted in Table 22. The results from the Table 22 revealed that about 100.00 per cent of the farmers expressed the attack of bacterial blight disease followed by 82.00 per cent of them opined for labour scarcity, inadequate irrigation facility (78.00%), 75 per cent each for aril browning and problem of electricity supply, 60.00 per cent of them expressed regarding the non-availability of disease free seedlings, 42.00 per cent of them regarding inadequate information about exportable quality of fruit production, 30.00 per cent of them regarding the financial problem, 20 per cent for short hole borer and 16 per cent of the farmers opined regarding the problem of wilt.

Problems faced in export of pomegranate by the exporters :

The problems faced in export of pomegranate by the exporters are presented in Table 23. The results from the table indicated that, about 90.00 per cent of the exporters expressed regarding strict chemical residue testing during the export of the produce followed by 80 per cent each for small sized fruit not allowed for export, non-availability of cold chain facility and high cost of transportation, 70.00 per cent for non-assurance of price in foreign countries, 50.00 per cent of the exporters opined that it was difficult to judge the fruits affected by blackening of arils at the time of harvesting, 30.00 per cent each for fluctuation of currency rates and varietal preferences and about 10.00 per cent of the exporters opined about the problem of delayed payment.

Problems faced in marketing of pomegranate by the farmers :

The problems faced in marketing of pomegranates are presented in Table 24. The results from the Table 24

Table 23 : Problems of exporters			(n=10)	
Sr.No.	Particulars	No.of exporters	Per cent	
1.	Small sized fruits are not allowed for export (Minimumsize is 250-300 gms for export)	8	80.00	
2.	Only 10 per cent of the fruits affected with mites, aphids andthrips are allowed	6	60.00	
3.	Strict chemical residue testing	9	90.00	
4.	Non-availability of cold chain facility	8	80.00	
5.	Non-assurance of price in foreign countries	7	70.00	
6.	Money transfer process is long	2	20.00	
7.	Fluctuation of currency rates	3	30.00	
8.	Colour and varietal preferences	3	30.00	
9.	Delayed payment	1	10.00	
10.	High cost of transportation	8	80.00	
11.	Difficult to judge fruits affected by blackening of arils atthe time of packing	5	50.00	

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Table 24 : Problems of farmers			(n=100)	
Sr.No.	Particulars	No. of farmers	Per cent	
1.	Fruit auction is not transparent and problem of language when fruits are sold outside the state	83	83.00	
2.	Higher transportation costs when fruits are sold outside the state	85	85.00	
3.	Fruit spoilage due to damage during the transportation	82	82.00	
4.	High commission charges	74	74.00	
5.	No guaranteed marketing	55	55.00	
6.	Lack of price information	97	97.00	
7.	Lack of storage facilities	93	93.00	
8.	Lack of processing facilities	94	94.00	

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revealed that about 97.00 per cent of the farmers opined that they have lack of price information followed by lack of storage facilities, higher transportation costs when fruits are sold outside the state, lack of processing facilities, fruit auction is not transparent and problem of language when fruits are sold outside the state, fruit spoilage due to damage during the transportation, high commission charges and problem of no guaranteed marketing accounting for 93.00 per cent, 85.00 per cent, 84.00 per cent, 83.00 per cent, 82.00 per cent, 74.00 per cent and 55.00 per cent, respectively.

Conclusion :

India's contribution to the export is less than 5 per cent in the international market although it's position is 1st in the pomegranate production. Appropriate export promotion policies need to be evolved to diversify the trade concentration to other countries and also to find new markets besides expanding the existing markets in major importing countries. Subsidy for drip irrigation of 75 per cent by National Horticulture Mission state wise has led to the expansion area of pomegranate and also influencing a positive attitude in farmers/growers on export. Lack of awareness in growers about quality production of pomegranate for export. The effect of

WTO is that it leads to the increased export of Indian pomegranate to countries like Netherlands, Belgium and Germany in recent years.

WEBLIOGRAPHY

Anonymous (2007). A study on project report on export promotion of pomegranate from India. Available at <[smallb.in/sites/default/.../Pomogranate Export Promotion Report](http://smallb.in/sites/default/.../Pomogranate_Export_Promotion_Report)> . Last accessed on 10th January, 2014.

Anonymous (2012). A study on agricultural and processed food products export development authority, Available at <www.apeda.gov.in>. Last accessed on 15th January, 2014.

Anonymous (2012). A study on national horticulture board, report file, Available at <<http://nhb.gov.in>>. Last accessed on 10th January, 2014.

Anonymous (2012). A study on post-harvest manual for export of pomegranates, Available at <www.apeda.gov.in>. Last accessed on 15th January, 2014.

Mundinamani, S.M. and Koujalagi, C.B. (2012). An economic analysis of production, marketing and export performance of pomegranate in Karnataka. M.Sc. Thesis, University of Agricultural Sciences, Dharwad (KARNATAKA) INDIA

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