

REPORT ON COTTON GINNING ISSUES

Prepared by:

Ishtiaq Ahmad

Approved by:

Chief, P&E Cell

**GOVERNMENT OF THE PUNJAB
AGRICULTURE DEPARTMENT
PLANNING & EVALUATION CELL**

PREFACE

Cotton is an important cash crop. It accounts 7.8 % of value addition in agriculture and 1.6 % in GDP. It contributes to the national economy by providing raw material to the local textile industry. About 70% of the country's cotton production is in Punjab Province, where 784 ginning factories out of 1117 are in working condition. Total export of textile manufactures during the year 2011-12 was of US worth \$10 billion.

2. Punjab Cotton Control Board in its meeting held on 05.03.1951 approved the area requirement for the installation of ginning factories as described in sub-rule 3(k) of the Punjab Cotton Control Rules. With the passage of time, rational for working out the area requirement was required to be re-worked out as technology innovations in every sector and changes in socio-economic set up of farming community and improvement in transport sector necessitated to make such decisions afresh. Under these circumstances applications are being received for the relaxation in area requirement from the cotton ginning factories. The applications regarding installation, working / shifting of small cotton ginning factories from one district to other are also being received, which have to be addressed, also.

3. Keeping in view the above scenario, Punjab Cotton Control Board (PCCB) in its meeting held on 24.07.2012 constituted two committees under the chairmanship of Chief, P&E Cell to make recommendations for amendment in the existing rules & procedures. Director, AMRI, representative of PCGA and Deputy Director, F&VDP were the members of committee.

4. The committee held three meetings. Director AMRI, conducted survey in the Core Area, Multan to study the existing scenario and propose recommendations. Based on the survey conducted, the staff of Agricultural Economist Section prepared this report. The efficiency & work delivery of the engaged staff is appreciable. It is hoped that the recommendations proposed in the report will be placed in PCCB meeting to change the existing area requirements and policy decision, which in the long way would be helpful in modernization our ginning industry in general and quality in particular. This will consequently add income of the farming community and increase the capacity of ginneries within the available structure. In the non-core and marginal areas where no ginning factories are working, small ginning factories may be installed to meet the long lasting demand of people of the area.

**CHIEF,
PLANNING & EVALUATION
CELL, AGRI. DEPARTMENT,
LAHORE.**

Chapter –1

INTRODUCTION

Cotton is an important cash crop which significantly contributes to the national economy by providing raw material to the local textile industry, such as cotton lint as an export item. It accounts 7.8 percent of value added in agriculture and 1.6 percent in GDP.

1.1 Cotton Production Zones in Punjab

2. Punjab is categorized under the following zones on the basis of cotton crop:

Table-1

Cotton Production Zones

Production Zone	Districts
Core Areas	Multan, Lodhran, Khanewal, Vehari, Muzaffargarh, Layyah, D.G. Khan, Rajanpur, Bahawalpur, Bahawalnagar and R.Y.Khan.
None-Core Areas (Old Cotton Areas)	Faisalabad, T.T.Singh, Jhang, Okara, Sahiwal and Pakpattan.

1.2 Area, Production and yield per hectare

3. Cotton is the major cash crop of Southern Punjab. The area remained almost the same overtime. Whereas, huge fluctuation has been observed in yield as is depicted in the following table-2:

Table-2**Area, Production and yield per hectare**

Year	Area (000 ha.)		Production (000 bales)*		Yield (Kg/hect.)	
	Punjab	Pakistan	Punjab	Pakistan	Punjab	Pakistan
2003-04	2386.8	2989.3	7702.0	10047.7	549	572
2004-05	2518.3	3192.6	11149.0	14265.2	753	760
2005-06	2426.0	3103.0	10268.0	13018.9	720	714
2006-07	2462.9	3074.8	10350.0	12856.2	715	711
2007-08	2424.8	3054.3	9062.0	11655.1	636	649
2008-09	2223.7	2820.0	8751.0	11819.0	669	713
2009-10	2435.8	3105.6	8552.0	12913.4	597	707
2010-11	2200.6	2689.2	7854.0	11460.1	N.A	724
2011-12	2533.7	2835.0	11129.0	13000.6	2108	780
2012-13 (Target)	2509.1	N.A	10500.0	N.A	2290	N.A

* 1 bale = 159 kg.

1.3 Composition of Export (Textile Manufactures)

4. The raw cotton is ginned and is used in textile manufacturing. After meeting the local requirement, raw cotton as well as textile manufactures is being exported to other countries. Our total export of textile manufactures during the year 2011-12 was of US\$ 10 billion as is stated in the following table-3:

Table-3**Composition of Export**

Particulars	(\$ Million)		
	2009-10	2010-11*	2011-12*
Raw Cotton	194.1	327.3	433.1
Cotton Yarn	1238.0	1880.0	1451.7
Cotton Cloth	1486.0	2081.2	1969.8
Knitwear	1434.8	1870.1	1624.5
Bed Wear	1422.5	1686.0	1453.1
Towels	550.7	607.8	556.5
Readymade Garments	1033.5	1396.5	1326.6
Made-up Articles	437.3	509.0	472.7
Other Textile Materials	645.9	911.5	911.5

	8442.8	11269.4	10199.5
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Source: Economic survey of Pakistan 2010-11 & 2011-12

* Provisional

STATUS OF GINNING INDUSTRY IN PUNJAB

2.1 COTTON PROCESSING & VALUE ADDITION

5. The cotton ginning is the place where cotton fiber is separated from the cotton seed. The first step in the ginning process is started when the cotton is vacuumed into tubes that carry it to a dryer to reduce moisture and improve the fiber quality. Then it runs through cleaning equipment to remove leaf trash, sticks and other foreign matter. Ginning is accomplished by one of two methods. Cotton varieties with shorter staple or fiber length are ginned with *saw gins*. This process involves the use of circular saws that grip the fibers and pull them through narrow slots. The seeds are too large to pass through these openings, resulting in the fibers being pulled away from the seed.

6. Long fiber cottons is ginned in a *roller gin* because saw gins can damage its delicate fiber. The roller gin was invented in India centuries ago and this concept is still used in modern gins. Long staple cottons (like Pima) is separated from seed more easily than Upland varieties. A roller gin uses a rough roller to grab the fiber and pull it under a rotating bar with gaps, which are too small for the seed to pass. The raw fiber, now called lint, makes its way through another series of pipes to a press where it is compressed into bales (lint packaged for market), banded with eight steel straps, sampled for classing, wrapped for protection then loaded in trucks for shipment to storage yards, textile mills and foreign countries.

7. The cotton industry has adopted a standard for a bale of cotton i.e. 55 inches tall, 28 inches wide, and 21 inches thick, weighing approximately 500 pounds. A bale meeting these requirements is called a universal density bale. This is enough cotton to make 325 pairs of denim jeans.

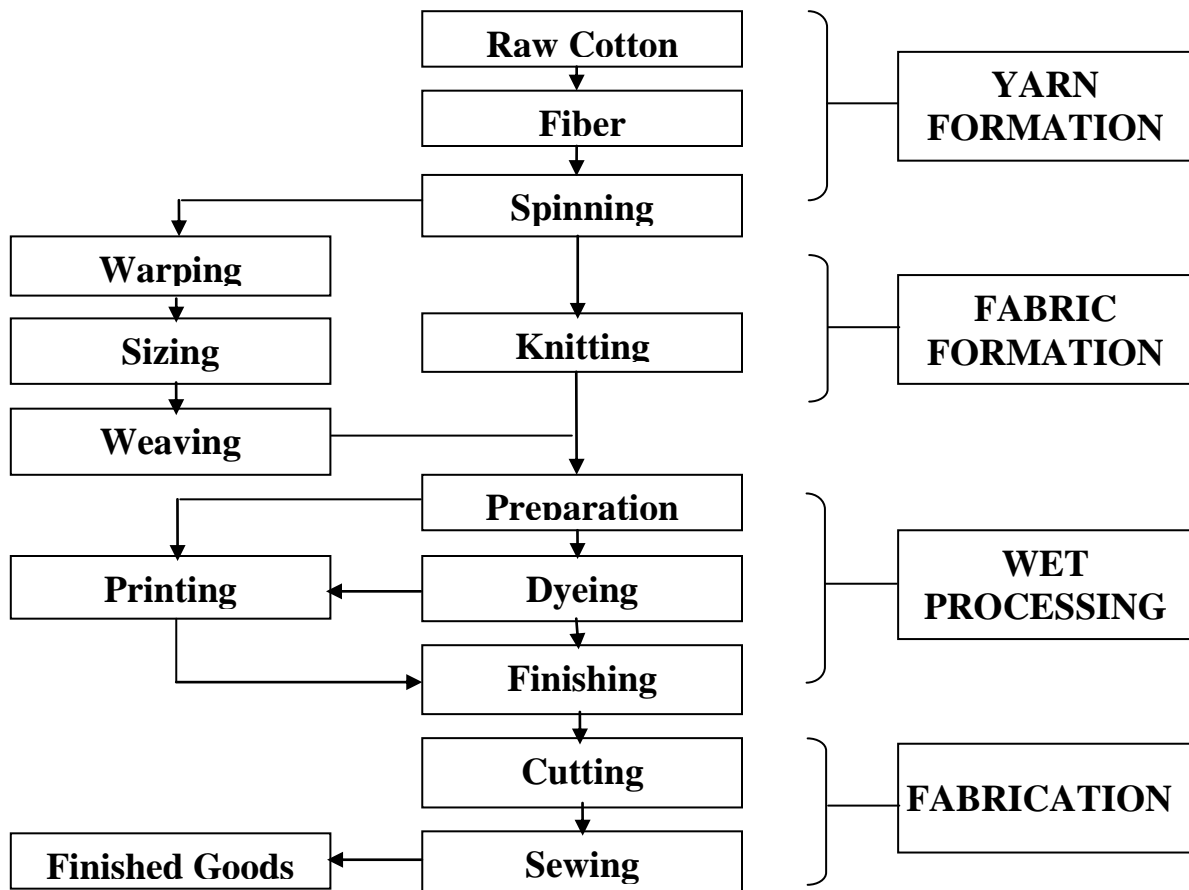
8. Every bale of cotton is classed from a sample taken after its formation. The classing of cotton lint is the process of measuring fiber characteristics against a set of standards (grades). Classing is done by experts, called classers, who use scientific instruments to judge the samples of lint. All standards are established by the U.S.

Department of Agriculture. Once the quality of the cotton bale is determined, pricing parameters are set and the lint may be taken to market.

9. Cotton marketing is the selling and buying of cotton lint. Cotton is priced in cents per pound when sold and the price is negotiated according to the cotton's quality. After baling, the cotton lint is hauled to either storage yards, textile mills, or shipped to foreign countries. The cotton seed is delivered to a seed storage area. Where it will remain until it is loaded into trucks and transported to a cottonseed oil mill or directly for livestock feed.

10. The cotton yarn dyed into stripes, checks patterned woven shirts and knitted garments, prominently features in most of the high value brands. For such applications, super fine count quality cotton yarn is usually dyed in package form, woven with un-dyed grey or bleached yarn and then further processed with treatments like mercerization, wrinkle free finishing etc. The channel of cotton processing is given below:

Channel of Cotton Processing



11. District wise operating Ginning Factories in Punjab are depicted in the following table-4:

Table-4 District wise Ginning Factories in Punjab

Name of District	Factories in Operation
Multan	54
Lodhran	41
Khanewal	64
Muzaffar Garh	49
Dera Ghazi Khan	40
Rajanpur	41
Layyah	13
Vehari	77
Sahiwal	39
Pakpattan	13
Okara	5
Kasur	2
T.T. Singh	18
Faisalabad	6
Jhang	16
Mianwali	24
Bhakkar	12
Sargodha	4
Rahim Yar Khan	101
Bahawalpur	105
Bahawalnagar	60
	784

Source: PCGA Consolidated Statement of Cotton Arrivals in Factories of Pakistan as on 15.12.2012

12. Year wise number of spinning & weaving units in cotton textile industry are given in the following table-5:

Table-5 Spinning & Weaving Units of Cotton Textile Industry

Year	Spinning Units	Weaving Units
2000-01	228	52
2001-02	228	52
2002-03	238	53
2003-04	238	53
2004-05	233	38
2005-06	250	50
2006-07	263	50
2007-08	263	52
2008-09	263	52
2009-10	269	53

2.2 Role of Pakistan Cotton Ginners Association

13. Pakistan Cotton Ginners Association is a representative body, which takes care the interest of the ginners and coordinates their problems with the Federal and Provincial Government Agencies to resolve them. After independence, in 1947 Cotton Ginning Industry in Pakistan had desolate and farlon look of dependency due to the migration of Hindu and Sikh owners, who left Pakistan not only with the knowhow but also with most parts of the ginning machinery to India. The Pakistan took over the industry mostly by allotment as an evacuee property and tried to operate the factories what so ever machinery was available through trials and tribulations set the industry in motion. This happened from 1947 to 1950. During this period the Provincial Government came out with Punjab and Bahawalpur Cotton Control Act and tried to regulate working condition of the ginning factories through Cotton Inspectors. In 1960 the Cotton Ginning Factories were transferred from the allottees to the new buyers. The new owners of the ginning factories braved the situation and with the best of their ability and available means, left no stone unturned in boosting up the efficiency of ginning operations and standardization of lint, quality wise and grade wise in Pakistan. The cotton Control Act 1949 was replaced with Pakistan Cotton Control Act, 1966, which is now covering the Punjab and Sindh Provinces.

14. In order to safeguard the interests of ginners of Pakistan and to project the problems of ginners for consideration of the Federal & Provincial Governments, to educate and advise the cotton ginners, to adopt ways the cotton could be improved to the International standard Pakistan Ginners Association came into existence in 1958 and recognized and licensed as 'A' class Association by the Federal Government of Pakistan.

2.3 Registration of Ginning Factories

15. A ginner shall apply for registration in the form specified in the Central Board of Revenue's Notification No. S.R.O 550(1)96 dated the first July, 1966 to the Collector of Sales Tax having jurisdiction in the area where the ginning unit is situated. Where the ginner is running more than one ginning unit or a composite unit dealing in ginning and spinning together or is engaged in any other taxable activity, and whether the ginning and other taxable activity are carried out in the same premises or not, such ginner shall apply for registration separately in accordance with sub-rule (1) for each ginning unit and separately other taxable activity.

ISSUES & PROCEDURES

3.1 Area Requirement for the Ginning Factories

16. Punjab Cotton Control Board in its meeting held on 05.03.1951 framed area requirement as described in the Sub-rule 3(k) reproduced below:

3(k) The area required for a factory is regulated by the number of gins proposed to be installed and for this purpose one single roller gin is taken as a unit. A double roller gin is regard as equivalent to 1 ½ single roller gins and ten saws in regardless of the number of the saws in the sawgins considered to be equivalent to one single roller gin. Area required for factory is given below:

#	Minimum area required in acres	No. of SRG of their equivalent permitted	No. of Sawgin (computed)
i.	Four	30 or less	3 or less
ii.	Five	30 to 40	3 to 4
iii.	Six	40 to 50	4 to 5
iv.	Seven	50 to 70	5 to 7
v.	Eight	70 to 90	7 to 9
iv.	Thereafter on additional acre for each additional 20 such gins and thus equivalent.		

17. Rational, for working out the above requirement, for the area of ginning factories was as follows:

- There were few ginning factories, which were located in far flung areas away from production sites, thus the ginning factories were also required to make arrangements for farmers / beoparies night stay, for which space was required.
- The mode of transportation at that time was bullock drawn carts which were slow and need rest after long journey. Now, those have been replaced by tractor trolleys, which is fast mode of mobility and do not need over night stay.

- The land was easily available and was not a limiting factor at that time. Cost of land was also low and now it has become a limiting factor due to rapid urbanization.
- Ginning machinery was comparatively much larger size than existing today.
- Provision of residential facilities for factory labour due to lack of transport facilities.

18. With the passage of time the rationale for working out the requirement for the area has been changed due to the following issues:

- The number of ginning factories has also increased which has reduced the distance between ginning factories and cotton production area.
- Ginning machinery has been improved a lot during last 60 years.
- The building structure has also been improved allowing the establishment of the ginning factories in less area by constructing multi stories buildings & offices.

19. Under the instant circumstances applications are received for relaxation in required area from the cotton ginning factories. Hence, area requirements may be reduced to solve the problem, keeping in view the latest machinery and squeezing of available land.

20. Similarly, applications regarding installation, working / shifting Small Cotton Ginning Factories from one district to other are received. Requests from entrepreneur from non-core and marginal areas have also been received for installation of Small Ginning Factories, which also need proper amendment in Cotton Control Rule, 1966, 9(4)(ii)b: “No License shall be granted unless in case of an application for the installation of new or alteration or extension to be installed or an alteration or extension, as the case may be, is not less than three saw gins, or twenty double roller gins or thirty

Single Roller Gins”, provided that clause (b) shall not apply in the case of Cotton Grower who applied for a license for ginning Cotton produced from his own land.

21. It is stated that Punjab Cotton Control Board (PCCB) was reconstituted vide Notification No. 6937-60/10(16) Vol-II/P&EC/2012 dated 25-05-2012 with the purpose to advise Government on matters connected with respect to Cotton Research, Development, Ginning and Manufacturing (**Annex-A**). Secretary Agriculture is the Chairman of PCCB. The terms of reference of the board are as follows:

“The Board shall, in addition to the powers conferred and the duties imposed on it by the Ordinance, advise Government on matters connected with the growing of cotton, cotton industries and cotton textiles in Punjab and on such other matters as may be referred to by Government and shall supervise and direct the working of the advisory Committee and act as a liaison between Government and the Advisory Committee”

22. However, first meeting of the Punjab Cotton Control Board was held on 24.07.2012. A copy of minutes of the meeting is placed at **Annex-B**. It was decided to constitute a committee to come up with proposals for amendments in act if required and following will be the committee to propose recommendations in thirty days to place in next meeting (**Annex-C&D**).

Committee No. 1 (Vide Notification No.2249-68/16-6/C&M/DGA (Ext. & AR)/ Pb./Dev dated 28.07.2012)

- | | |
|------------------------------------------|----------|
| • Mr. Natiq Hussain, Chief, P&E Cell | Convener |
| • Mr. Aman Ullah Qureshi, Chairman, PCGA | Member |
| • Director, AMRI, Multan | Member |
| • Ch. Mehmood-ul-Hassan, DD, F&VDP LHR | Member |

TORs

Frame recommendations after study of environmental impact on adjustment of new machines in the same area, health of workers, latest technologies, contemporary conditions and ensuing circumstances for Cotton Ginning Factories.

Committee No. 2 (Vide Notification No.2230-48/16-6/C&M/DGA (Ext. & AR)/ Pb./Dev dated 28.07.2012)

- | | |
|------------------------------------------|----------|
| • Mr. Natiq Hussain, Chief, P&E Cell | Convener |
| • Mr. Aman Ullah Qureshi, Chairman, PCGA | Member |
| • Director, AMRI, Multan | Member |
| • Ch. Mehmood-ul-Hassan, DD, F&VDP LHR | Member |

TORs

Frame recommendations to allow the establishment of small ginneries or not, in the wake of present conditions in core, noncore and marginal areas.

RESULTS & DISCUSSIONS

4.1 Method & Procedure

23. First meeting of the committees was held on 15.08.2012 in the office of Chief, Planning & Evaluation Cell. A copy of minutes is attached as **Annex-E**. It was decided in the meeting that Director AMRI will conduct survey of 10-15 ginning factories. Before survey, he prepared questionnaire and shared with Chief, P&E Cell. The other members of the committee including Mr. Mukhtar Ahmad, Vice Chairman, PCGA & Ch. Mahmood-ul-Hassan, Deputy Director (F&VDP) also gave their recommendations on the questionnaire. As per procedure, questionnaire “the improvement in working of ginning factories and their extension” was prepared by Director, AMRI. The same was vetted from the members of the committee. Accordingly, Director, AMRI conducted survey of 11 ginning factories in Multan Core area and furnished the survey report to Planning & Evaluation Cell (**Annex-F**).

24. After that, a meeting was held on 29.11.2012 in the office of Chief, P&E Cell under his chairmanship and report was discussed. A copy of minutes of the meeting is placed at **Annex-G**.

25. In the said meeting, following 20 kanals minimum area was also agreed for three sawgin machines:

- Parking area & weigh bridge - 4 kanals
- Plat form - 8 kanals
- Bi-products (lint, cotton seed) - 2 kanals
- Officers – labour quarter tubewell - 2 kanals
- Ginning house - 2 kanals
- Roads - 2 kanals

26. In the meeting held on 29.11.2012 under the Chairmanship of Chief P&E Cell, TORs of the 2nd committee i.e. Frame recommendations to allow the establishment

of small ginneries or not, in the wake of present conditions in core, noncore and marginal areas, came under discussion. All participants were of the view that these small ginning factories are promoting the informal seed business in every core and non-core area. Thus, permission of small ginning factories in core and non-core/marginal area is not feasible and should not be allowed. However, in non-core area having no ginning factory in the whole tehsil, Government may allow small ginning factory on the recommendations of Director General Agriculture (Ext. & AR).

27. Earlier, a meeting was held on 15.08.2012. In the said meeting, Mr. Mukhtar Ahmad Khan, Vice Chairman PCGA and Ch. Mahmood-ul-Hassan, Deputy Director, F&VDP proposed an area for installment of sawgin machines. The proposed area for the installment of sawgin machines against the area prescribed in rules 1966 is stated hereunder, in the following table-6 in an annotated form:-

Table-6 Comparison of the Area Proposed and prescribed in Cotton Control Rules, 1966 for Sawgin Machines

#	Area under Cotton Control Rule 1966	Ginning Machines under Cotton Control Rules 1966	Area proposed by	
			DDA (HRS) F&VDP	Representative of PCGA
1	1	-		
2	1.5	-	3	
3	2	-	4	
4	2.5	-	5	
5	3	-	6	3
6	3.5	-	7	
7	4	3	8	4
8	4.5	-		
9	5	4		5
10	6	5		6-7
11	7	6		10
12	8	7		
13	9	8		
14	10	9		

28. Table-6 reveals that under Cotton Control Rules, 1966 minimum 3 sawgin machines are to be installed on 4 acres and maximum 9 sawgin machines on 10 acres. On the other hand, DDA (F&VDP) has suggested to install only 3 sawgin machines on 1.5 acre and 8 sawgin machines on 4 acre. Similarly, representative of PCGA has suggested 3 sawgin machines on 3 acre and 4 machines on 4 acre and upto maximum 10 machines on 7 acres.

29. Mr. Mukhtar Ahmad, Vice Chairman, PCGA stated that factory with 3 or more sawgins may be installed in any area i.e. core, non-core and marginal areas. Mr. Mahmood-ul-Hassan, DDA, F&VDP stated that small ginning units should be allowed to avoid ginning with tractor / mobile units.

4.2 Discussion on Survey Report

30. Results of the Survey Report prepared by Director, AMRI were discussed in the meeting held on 29.11.2012. Results are depicted in the table below:

Table-7 Comparison of the Survey Results with the Requirements under Cotton Control Rules, 1966

Requirement under (Cotton Control Rules, 1966)		Survey Results					Diff. of survey results (%)
Area (acres)	Sawgins machines (No.)	Factories surveyed		Sawgins Range (No.)	Total sawgins (No.)	Average sawgin/ factory (No.)	
		No.	%				
Less than 3.99	-	2	18	4	8	4	Not as per reqr. regulation
4-4.99	3	1	9	4	4	4	+33
5-5.99	4	2	18	4-5	9	4.25	+6.25
6-6.99	5	-	-	-	-	-	-
7-7.99	6	3	28	4-6	15	5	-17
8-8.99	7	2	18	5-6	11	5.5	-21
9-9.99	8	1	9	6	6	6	-25

31. Results in the above table-7 reveals that out of 11 ginning factories surveyed, 18% factories have installed 4 sawgin machines each with less area as

prescribed in Cotton Control Rules, 1966. In 9% factories, 4 sawgin machines have been installed against 3 sawgin machines as under rules i.e. 33% more than the prescribed in Cotton Control Rules, 1966. In 18% factories, on an average 4.25 sawgin machines have been installed on 5-5.99 acres (6.25% more) as prescribed in Cotton Control Rules, 1966. In 28% factories on 7.99 acres, on an average 5 machines have been installed against 6 machines prescribed under rules i.e. 17% less. Similarly, in 18% factories on an area from 8-8.99 acres, 5.5 machines have been installed against 7 machines as prescribed under rules i.e. 21% less. In 9% factories on an area of 9-9.99 acres, 6 sawgin machines have been installed against 8 machines prescribed under rules i.e. 25% less.

Chapter-5

RECOMMENDATIONS

32. Based on the survey conducted by AMRI, discussions held in the meetings of the Committees constituted and looking into social economic & technical changes occurred after the last decision, the Committees recommend the following:

- i. The area requirement for establishment/ extension of ginning factories recommended as follows:

No. of sawgin machines	Acres
3	3
4	3.50
5	4
6	4.50
7-10	6

- ii. There should be complete ban on small ginning factory having area less than 3 acres and mobile ginning unit in the core as well as non-core area. However, in exceptional cases in non-core area, where there is no working ginning factory in any tehsil, Government may sanction small ginning factory on the recommendations of DGA (Ext. & AR).

References

1. *Economic survey of Pakistan 2010-11 & 2011-12*
2. *PCGA Consolidated Statement of Cotton Arrivals in Factories of Pakistan as on 15.12.2012*
3. *Punjab Development Statistics, 2011*
4. *PCGA website www.pcgga.org*

