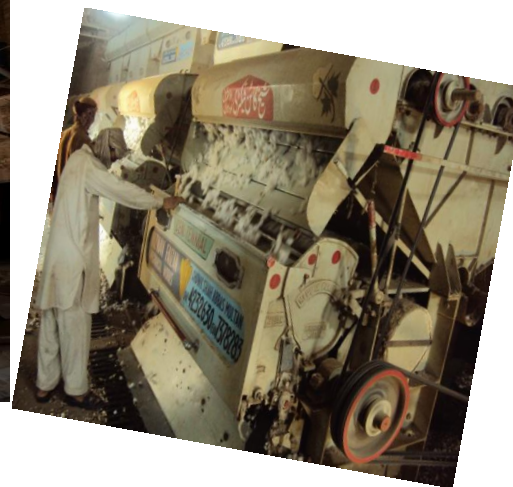




# Sustainable Cotton Production in Pakistan's Cotton Ginning SMEs (SPRING)

Presented by

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**spring**

**Funded by EU under SWITCH-Asia Programme (2012-2015)**



## **Facts & Figures**

### Overall Objective

- **By 2040, sustainable production and consumption in the cotton market worldwide predominates as best practice, resulting in increased environmental sustainability and poverty reduction.**

### Specific Objective

- **By 2015, at least 500 cotton gin SMEs in Pakistan recognise the benefits of sustainable cotton production and consumption and 40% of these commit to more sustainable production practices, in line with agreed better ginning practice guidelines, and supported by the procurement practices of European retailers.**



# Target Group



# Outreach Strategy



# Areas Of Impact



## •Economic Impact

•Gins adopting the BGPs have improved their energy efficiency, processing efficiency and waste management. Direct benefits to the gins include reduced energy costs, improved Ginning Out-Turn increased business and better returns due to improved fibre quality, and ultimately higher profits.

## •Environmental Impact

•The project has helped the ginning SMEs to reduce the dust & noise as well improving their cotton gin waste management practices.

•Promotion of sustainable cotton sourcing is helping in reducing the environmental footprint of cotton production at farm (reduced use of pesticides, synthetic fertilizers & efficient use of fresh water resources.) Rural communities will also benefit from reduced water extraction, pollution and land degradation due to promotion of sustainable cotton production.

## •Social Impact

•The Project has helped to ensure better protection of labour rights, improved working conditions and positive impact on the livelihoods of the workers and their families.

# Core Areas of Action



## Better Cotton Sourcing and Tracking

- Improving the capacity of gins will enable the movement of Better Cotton along the supply chain and increase the supply of more sustainable cotton to retailers

## Ginning Efficiency

- Process efficiency,( Productivity & Quality)
- Energy efficiency
- Waste management

## Decent Work

- The Better Cotton system contains measures to ensure Decent Work at the farm level; this Action will extend considerations of Decent Work standards to the gin level.

# ***Better Ginning Practices***



**Sustainable Solutions pertaining to;**

**Production Management**

**Mechanical Efficiency & Fiber Quality**

**Energy Efficiency**

**Waste management**

**House Keeping & working Environment**

**Occupational Safety & Health**





**ER 1 - More Sustainable Cotton Production: By 2015, 30 gins are using more sustainable cotton ginning practices and increasing the supply of Better Cotton to European markets**





## Direct Beneficiaries

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Model Ginning SMEs	6
Level-I SMEs	45
Level-II SMEs	231
Level-III SMEs	315

## Integrated Gap Analysis and on-site Technical Support

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Integrated Gap Analysis followed by site specific BGP Implementation Plans	60 SMEs
On-site technical support to ginning SMEs for BGP implementation (regular visits during machinery overhauling & maintenance)	45



## Cotton Gin Waste Management

Three alternate eco-friendly uses were explored to use Cotton Gin Waste

- Waste to energy: designed and developed household Gasifier/stove
- Turning waste to grow food: used as growing substrate for mushroom cultivation
- Waste recycling: used for preparation of sundried cardboard

## Training and Capacity Building on Cotton Gin Waste Management

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Agro-waste Gasifier/stove, training and demonstration for Rural Women in collaboration with Producer/Farmer Organizations	11 Trainings
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## Training and Capacity Building on Cotton Gin Waste Management

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Training Workshop for rural women on Mushroom cultivation using Cotton Gin Waste as growing substrate, in collaboration with Institute of Horticultural Sciences	24 Participants
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Training & competition on culinary uses of Mushroom in collaboration with COTHM (College of Tourism & Hotel Management)	24 Participants
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**Evaluate the short and long-term cost-benefit of implementation and the means required to implement the ginning efficiency measures**

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Post implementation audits of ginning SMEs	45 SMEs
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Performance evaluation of ginning SMEs (model & Level-I ginning SMEs)	45 SMEs
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Cost benefit analysis regarding BGPs implementation	45 SMEs
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Better Ginning Practices (BGPs) Business case report	45 SMEs
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## Training and Capacity Building on Process Efficiency, Productivity and Fiber Quality

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On-site support for gin owners, managerial staff & technical staff for BGPs implementation

60 SMEs/225 Training workshops

Training workshops on ginning efficiency & fiber quality at regional level for Level-I and Level-II SMEs

25 Regional workshops

Training workshops for Gin Mechanics & Fitters on standardization of gauges & calibration in ginning machinery operation & maintenance

3 Regional workshops

Regional learning & result sharing workshops for Level-I & II ginning SMEs

6 Training Workshops

Trainings for Farmers & Ginners on Fiber quality preservation in collaboration with PCSI (Pakistan Cotton Standards Institute)

10 Training Workshops

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## **Training and Capacity Building on Process Efficiency, Productivity and Fiber Quality**

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Cotton Selector Training in collaboration with 18 SMEs  
Pakistan Cotton Standards Institute (PCSI) (training  
duration was one month/30 days)

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# Training and Capacity Building on Decent Work Awareness



On-site Decent Work awareness workshops for gin workers of Level-I & II ginning SMEs	60 SMEs
Training on Basic life support, emergency handling and Fire safety in ginning SMEs in collaboration with Civil Defense Department	05 Training Workshops
Capacity building workshops for gin owners and management staff regarding Occupational safety & health with technical support of CIWCE	03 Training Workshops
On-site Practical demonstration of Fire safety & emergency handling for gin workers	03 Training Workshops
Decent Work awareness workshops for gin owners & technical staff of Level-II & III ginning SMEs	32 Training workshops
On Farm trainings for Cotton Pickers Women on Better Picking Practices	50 Trainings

# Training and Capacity Building on Decent Work Awareness



On Farm trainings for Cotton Pickers Women on Better Picking Practices 50 Trainings

Code of Conduct on Child Labour for ginning SMEs, issued by PCGA (Pakistan Cotton Ginners' Association)

01 memo



## Building Capacity for Better Cotton Tracer System (BCS)



Regional orientation workshops for Level-I ginning SMEs on Better Cotton System	3 Training workshops
Registration of SWITCH-Asia ginnerers for Better Cotton Bale Tracking system	228 SMEs
On-site technical support for Better Cotton Tracer system implementation	69 SMEs
Better Cotton Tracer system trainings for Level-I, II & III ginning SMEs	30 Training Workshops
Annual ginnerers meetings with the support of Better Cotton Initiative	4 Meetings
Better Cotton Bales Accreditation system established at ginning SMEs with technical support of PCSI	30 SMEs
Better Cotton Tracer user manual in Urdu language	03 Manuals

# Better Cotton Supply Chain Linkage Development



Support BCI companies to link up their supply chain players to secure Better Cotton 87 members

Linkage Development meetings between Better Cotton Famers & SWITCH-Asia ginners 18 Meetings

Linkage development meeting between SWITCH-Asia ginners & Spinners in collaboration with Levis 01

Linkage Development Meeting between Level-I & Level-II Ginners and KCA (Karachi Cotton Association) for Better Cotton Trade 01

As a result of strong linkages 427735 MT Better Cotton was procured by SPRING ginners to produce 142578 MT lint in cotton season 2015-2016 while in cotton season 2012-2013 the procurement was only 42060 MT which produced 14020 MT of lint.



**ER 2 - Enabling Policy Environment: By 2013, Better Ginning Practice guidelines have been collaboratively developed with industry and government and endorsed by Pakistan Cotton Ginning Association**

## Better Ginning Practices Guidelines

Better Ginning Practices Guidelines/Manual	01 Publication
An Empirical Analysis of Decent Work Issues in Cotton Ginning Sector of Pakistan”	01 Publication
BGPs for Ginning efficiency	04 Publications
Cotton Gin Waste Management (Oyster Mushroom cultivation manual)	01 Publication
Better Practices for Decent Work implementation	05 Publications
“Maintenance and Gauging Toolkit” for gauging and standardization ginning machinery parts	01 Toolkit

## Research Studies

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Research study and guidelines for improving ginning process, fiber quality & production with technical support of Fiber & Textile Technology Department, UAF 01 Publication

Research study and guidelines on ginning saw life with technical support of Fiber & Textile Technology Department, UAF 01 Publication

Research study to evaluate use of cotton gin waste as an efficient fuel in collaboration with UET, Lahore on the basis of calorific value tested by PCSIR Laboratories 04 Publications

Research study to evaluate the use cotton Gin Waste as growing substrate for mushroom cultivation, in collaboration with Institute of Horticultural Sciences 01 Publication



**ER 3; Capacity Building and Outreach: By 2015, 200 gins have the capacity to adopt more sustainable ginning processes in line with the better ginning practice guidelines, and key supporting institutions are able to support them.**

## Networking ,Exposure Visits, Seminars, etc

Better Cotton Farmers visits to SWITCH-Asia ginnerers	03
Exposure visit of Chinese Ginning & Textile Industry	01
Ginnerers' Exposure visit to Turkish Ginning & Textile Sector	01
Exposure visit of Ginnerers to Artistic Milliners Karachi	20 Ginnerers
Exposure visits of Level-I & II ginning SMEs to SWITCH-Asia SPRING Model ginning SMEs	04
Better Cotton Farmers visits to SWITCH-Asia ginnerers	03
Exposure visit of Level-I ginning SMEs to Spinning Mill engaged in Better Cotton supply chain	02
Seminars on "Sustainable Consumption & Production" in Academic Institutions	07

## Networking ,Exposure Visits, Seminars, etc

Exposure visit of MinTex delegation to SWITCH-Asia ginners	01
Cotton Supply Chain events & Trade Shows in collaboration with BCI	02
Cotton Brokers Seminar in collaboration with BCI	02
Print & Electronic Media exposure visit to Ginning SMEs	30 Journalists
Linkage development meetings between ginners and financial institutions	02
Linkage development meeting between ginners and ginning equipment manufacturers	01
SWITCH-Asia Round Table & Networking events on Sustainable Development of Asia Textile Industry in Myanmar	01
Participation in Annual SWITCH-Asia Network meetings	02





**ER 4; Replication: By 2015, Better Ginning Practice guidelines promoted to a further 300 PCGA members and shared with other cotton producing countries**

# Publications

- Training guide on Better Practices for seed cotton picking, storage and handling
- Better Cotton Tracer user manual in Urdu language
- Better Ginning Practices/guidelines on ginning efficiency
- Better Practices/guidelines on Decent Work in ginning SMEs
- Research study and guidelines for improving ginning process, fiber quality & production with technical support of Fiber & Textile Technology Department, UAF
- Research study and guidelines on ginning saw life with technical support of Fiber & Textile Technology Department, UAF
- Better Ginning Practices (BGPs); A case study report
- Research study to evaluate use of cotton gin waste as an efficient fuel in collaboration with UET, Lahore

# Contd.....

- Training manual on Mushroom cultivation & uses
- Better Ginning Practices Manual/guidelines
- “An Empirical Analysis of Decent Work Issues in Cotton Ginning Sector of Pakistan”
- 16 Research Thesis on different aspects of Sustainable cotton production & Processing
- Study on Financial requirements of ginners to adopt Better Ginning Practices
- Distribution of Information PACK
- Cost benefit analysis Report regarding BGPs implementation
- Better Cotton; from Farmers to Retailers
- “Success Stories”; Project Achievements
- 12 SPRING Newsletters

# Documentaries/Training Films/Widespread Communication

- Documentary on Pre & Post BGPs Adoption (English and Urdu versions)
- Documentary on “The Journey of Better Cotton”
- Training Film on BGPs adoption
- SPRING Android application
- 24 Street theater performances on Socio-economic Impacts of Sustainable Cotton production & processing were held and more than 10,000 people attending in Rural Communities



**ER 5 - Market Demand: By 2015, 5 EU retailers are demanding and procuring Better Cotton and gins in Pakistan are linked up with these through the supply chain**



## Stakeholders Meetings

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National Stakeholder Council meetings	03
Project Stakeholders meetings	06

### Support EU retailers to procure Better Cotton

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Meeting with European retailers in UK

Retailer Seminar

Engagement with EU retailers, brand & businesses 40

“The Journey of Better Cotton” (Film) 01

Better Cotton; from Farmers to Retailers (Publication) 01

Project success stories 01

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## List of top 10 BGPs

*(Calculations based on a Ginning Season of 150 working days)*

<b>Better Ginning Practice</b>	<b>Investment</b>	<b>Payback Period</b>
Leakage Rectification of Suction and Delivery Ducts	<b>950,000</b>	<b>96</b>
Replacement/Repair of Suction Fan	<b>200,000</b>	<b>76</b>
Installation of a Conveyor for Overflow of Seed Cotton	<b>100,000</b>	<b>23</b>
Installation of Conveyor after Beater for Seed Cotton	<b>700,000</b>	<b>90</b>
Replacement of Saws	<b>250,000</b>	<b>20</b>
Relocation of Delivery Fan-Bend Remove	<b>100,000</b>	<b>45</b>
Replacement of Space Blocks and Ribs	<b>200,000</b>	<b>42</b>
Improvement in Power Factor Plant	<b>250,000</b>	<b>150</b>
Replacement of Loose Belts, Bearings and Worn out Shafts	<b>250,000</b>	<b>35</b>
Replacement of T12 Tube Lights and Search Lights with Energy Savers	<b>25000</b>	<b>33</b>



# **Engagement with Target Group, Stakeholders & Partners**



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***Thank You***