

# 35<sup>th</sup> INTERNATIONAL COTTON CONFERENCE BREMEN 2021



## ABSTRACT + PRESENTATION

Session:

**Passion for Sustainability (C6)**

Presentation Title:

**Challenges and prospects of organic cotton: Experience of bioRe as pioneering entity**

Speaker:

**Vivek Kumar Rawal**, bioRe India Ltd., Kasrawad, India

Presentations are available on the conference archive:

<https://baumwollboerse.de/en/cotton-conference/lectures/>

Conference Organization

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Passion for Cotton!  
International Cotton Conference, Bremen  
March 17-18, 2021

## Organic cotton; Challenges and prospects ( Experience of bioRe as pioneering entity)

Vivek Kumar Rawal  
CEO & Director bioRe India Ltd

Dear Friends,

The Story of bioRe started in 1990s when founder of Remei AG Switzerland & bioRe, Mr Patrick Hohmann was visiting central India and supporting establishment of a spinning mill. He interacted with some local farmers and inquired how much they earn from cotton. He found that these farmers were not happy with their cotton economy and struggling with expensive chemicals. These farmers had state subsidies on chemical fertilizers but still complaining about having debts. Mr Hohmann came up with an idea and ask these farmers if they would be interested in trying out cotton organically, if he brings them knowledge and the market. This is how, with the handful of Indian farmers in central India on the bank of River Narmada the story of bioRe was started.

The fundamentals of the bioRe idea was clear that the vision of social economy can not be full filled without including farmers who are core of this business.

We all know about the cotton Industry and its significance. One part of this industry, is on the field and another part is in factories. The frantic speed, of short-term reactions prevailing in the fast-fashion industry, exerts tremendous pressure, on mankind, nature and merchandise. There is no cost truth, in cotton- business and Farmers hardly act as free entrepreneurs. The distribution of risk in the textile chain is very asymmetrical. While developing the concept and business model of Remei, Mr Hohmann considered these challenges and today bioRe is known as one of the most successful and longest standing models and supply chains on organic cotton, by following highest social and ecological standards, with traceability and transparency as key tools to connect to its farmers, processors, clients and consumers.

bioRe has unique supply chain connecting farmers and to the end consumers. And basis of this is ' All holder value' we believe in. We want to target responsible persons willing to see respectful interaction with humans and nature throughout the supply chain. The entire supply chain is network managed & financed by Remei AG Switzerland and has basis of fairness. We provide traceability to our clients and consumers from seed to fashion. And everyone is connected with the other. Nothing can be a more visible example for you on our transparency and all holder value as I being a representative from farming project Remei's supply chain, am presenting you the entire supply chain and the work we do. This makes Remei and this chain unique from others.

Responsibility is another aspect I would like to stress upon. Now consumers are also beginning to change their minds and challenge the business models around them. Corona has further informed the consumers and has sensitized everyone. We respect farmer's role in our textile chain and they are key for us. All partners need to be given timely solutions on the issues they raise and everyone needs to be heard. Remei bears responsibility for such ecosystem. It is not possible without solidarity, co-operation and unity between partners. While our values and their meaning remain unchanged, their relevance to the global system is rising.



bioRe sustainable textile chain has 5 core values.

We are 100% organic. With this we promote the conservation of biodiversity for people and nature. We are fair. With the purchase guarantee to the farmers, Remei assumes the risk of market access for organic cotton. With the payment of 15% premium over market price, we give the bioRe<sup>®</sup> farmers a share of the added value.

We are ecological. By establishing a complete textile chain, we ensure the holistic integration of ecological and social standards from the fibre to the finished product.

Our finished textiles are CO<sub>2</sub> neutral. We have built Biogas plants and smokeless stoves with farmers in India and Tanzania to improve their living conditions and protect the climate.

We are traceable. With the Traceability Tool we provide the proof and enable the connection for consumer to the source.

Consumers need trust and they want to know where their product is coming from. Our traceability tool traces each garment we make from field to fashion. The strict controls assured by the company internally and with the certifying agencies, are fully re-traceable for the consumers. bioRe<sup>®</sup> products have a traceability number that can be put in our traceability app, you can photograph and input with your smartphone. A list displays all the factories that participate in the production process. There are no secret suppliers because we openly encourage others to follow this.

Remei & bioRe believes in partnerships. We thank our long standing trading partners for sharing our vision. In a short lived world of textiles long standing partnerships are rare and unique. Coop Switzerland's brand Naturaline is 25 years old by now. Right from the beginning, Naturaline has been based on the bioRe. We thank them for this. As part of our transparency we inform about our mass flow to our clients and public through our annual reports as to what has been cultivated, consumed and sold at different stages.

bioRe India was the starting point where the bioRe story started. In last 3 decades bioRe India Ltd has faced many ups and downs. Since the GM era has started in India we have faced difficult times. However, this turbulence has also evolved company into new dimensions. Today we work with over 3000 organic farmers and cultivate organic cotton in over 6000 acres of area. When we were challenged by GMO cotton, we evolved into India's first organic cotton project to develop its own Non GMO cotton seeds. We engaged in R&D activities to find answers to questions of our farmers. For this we collaborated with some of the most reputed research organizations of the world. Due to our Research intervention Govt of India gave us DSIR recognition which is highest recognition for any private organization engaged in research. And in organic cotton sector we are the only one to receive it in India. We also act as Nodal Training institute for Agri enterprise training under Govt of India Scheme A&ABC. We have many collaborative projects and trails with some of the leading agencies such as ICAC, GIZ Germany, Helvetas, FiBL Switzerland and SDC.

bioRe India intervenes in various areas and majority of these areas are related to organic cotton cultivation, certification, training and advisory services to farmers, procurement and processing of organic cotton. Besides this we also have state of art Research station, we are producing Non GMO seeds for our own needs, we provide consultancy services and support our farmers to sell their alternative crops. When we come to challenges, the organic cotton sector faces several challenges. GMO is one of the greatest challenges and threats to organic cotton movement. Over 96% of the total cotton cultivation in India is GMO and organic cotton area is not more than 1%. Presently worldwide production of organic cotton is estimated to 220000 tons of lint cotton and India constitutes nearly 52% of this.



With introduction of GMO cotton in India, all major seed companies stopped their Non GM cotton seed production in India. Only few small companies are engaged in seed production of non GM cotton and they too use age old hybrids which does not cater to the needs of organic farmers.

Hence Non availability of good quality Non GMO cotton seeds suitable for organic cultivation is a big challenge in India. There are desi cotton seed available but due to higher micronaire industry is not interested in spinning it.

The other challenge is that the most organic cotton buyers want to buy organic cotton in cheapest possible rates which creates room for exploitation of farmers and working condition for the workers. Only after 10 year I saw a reasonable price for organic cotton in regular market. It was otherwise traded on a very thin margin compared to conventional cotton which was never sufficient to manage the organic operation and no premium was possible for farmers. One other challenge the organic cotton sector face is that there is also no separate support available to organic farmers, no subsidies. There are few schemes but they are for not sufficient. Another challenges organic cotton grower's face is lack of appropriate inputs for controlling pest. Small land holdings, surrounded by over 90% conventional fields invites a lot of pest on organic fields and only preventive measures are available and no deterrence is available for organic farmers to fight pests. It seems like organic movement is focused around certification and too many certifications are around. New sustainable standards and labels are witnessed and confuse consumers. There is no direct connection between private certifications and government certification system. It creates a lot of grey areas for people to play around and confuse the consumers. Many brands have not reach to farm projects hence no benefits reaches to farmers. The most important and risky part of the supply chain is most neglected.

At bioRe we have initiated and developed several mechanism and approaches to fight with such challenges. On one hand we provide various benefits to our farmers and treat them as partners in our work by providing them Purchase guarantee on their cotton to avoid risks for them, they get 15% premium over market price, inputs are given at interest free credit, individual farmers data is kept for transparency, certification-advisory services-trainings and transport of cotton from the field is free of costs and farmers have opportunity to participate in our representational system.

On the other hand we are implementing intensive research and development activities on organic agriculture, supporting our farmers to sale their alternative crops, have developed bioRe social and environment standards and get them validated with FloCERT International. Traceability tool and Co2 neutral projects support our work further and brings confidence in consumers. All these activities have been successfully implemented by Remei and bioRe India during last 25 years.

In line with several activities I informed you to counter challenges we face, one of the activities is implementing research trials. We are implement three major research projects and one of them is Long term system comparison trials where we are comparing four farming system ( that is organic biodynamic GMO conventional and Non GMO conventional in three on cotton soya and wheat) in same soil and weather condition following DOK trial concept in collaboration with FIBL Switzerland. This research is being implemented since 2006-07 and since then over 14 students have done their masters and PHD work with us. First results have already been published.

Additionally we implement Participatory on farm research with farmers where we develop new inputs in collaboration with scientists and farmers.

One of the most important work which we have realised is to develop our own GMO free cotton seeds for organic cultivation & suitable for our industry. We realise 10 years ago that we will have problems in getting GM free seeds from market in future. In 2010-11, together with University of Agriculture Sciences Dharwad under leadership of Dr SS Patil, we started Non GM cotton breeding



and evaluation trials under organic situation and today I can proudly say that 5 of our seeds are release for commercial cultivation. Nearly 50% of bioRe farmers are using own seeds and by 2022 season we aim to not only become self sufficient in our seed needs but will also be in position to support other organic projects with seeds. We claim and aim to provide GMO free cotton to our clients and we believe this is the only way forward.

Apart from this our social wing bioRe association implements several social projects on free elementary education to tribal children, mobile hospital for primary health services in villages, livelihood project and skill centers and support local infrastructure for the communities.

I thank you very much for your time. We are aware that our path is difficult but we trust that it is the right path and we hope to find many partners from you people who are willing to walk on this path and share this vision. 'Let our friendship benefit others'.

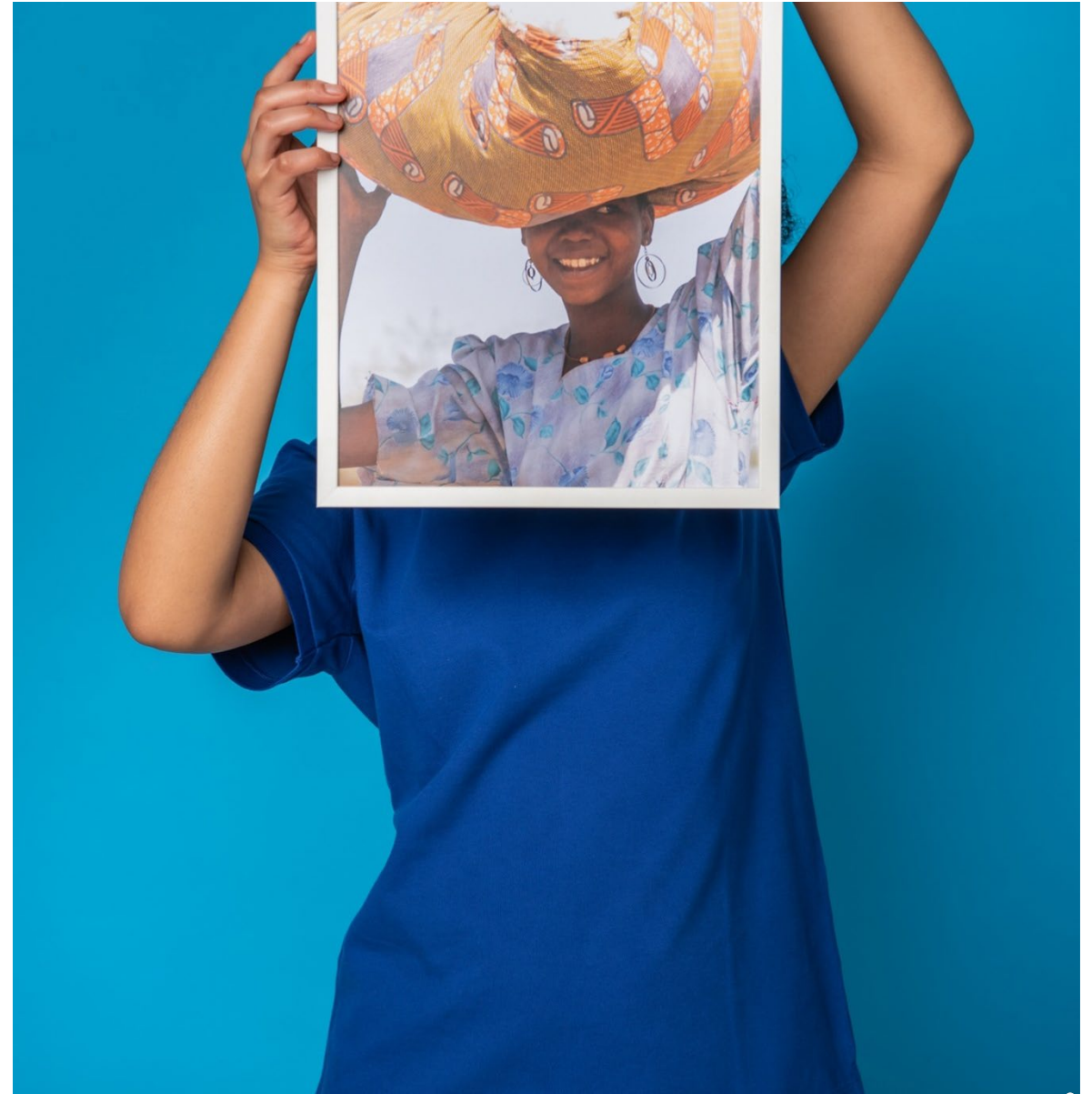
Thank you.  
Vivek Rawal



Passion for Cotton!  
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## Experience of bioRe as pioneering entity

Vivek Kumar Rawal  
CEO & Director bioRe India Ltd

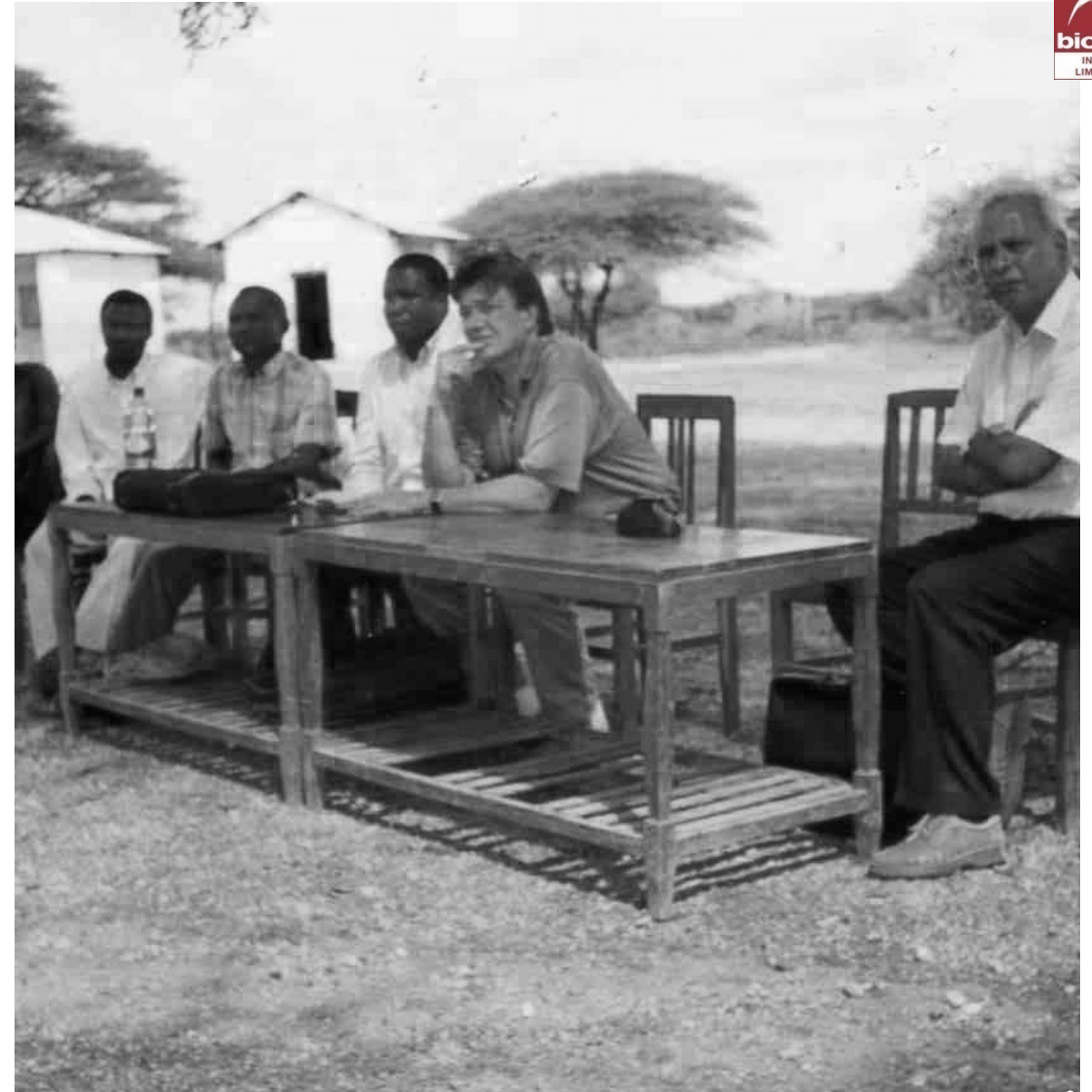


# bioRe story :How it all began?

*„It’s just not on that a farmer in India should subsidize my t-shirt.”*

Patrick Hohmann, the founder of Remei interacted with farmers from central India and learnt that, due to high expenditure for chemicals, the farm economy was not appreciated by farmers.

**In 1991, bioRe India Ltd was founded.**



# The global cotton trade is full of imbalances.

- There is no cost truth in cotton.
- Farmers hardly act as free entrepreneurs.
- The distribution of risk in the textile chain is asymmetrical.

## Transparency is key for sustainability

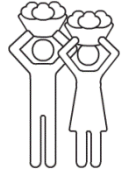
The non-transparent textile chain in global trade is the main cause of the serious problems.



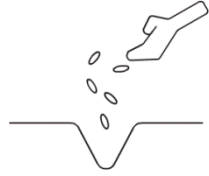
# Remei's supply chain for organic cotton textiles is 100% transparent: From fibre to fashion



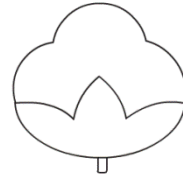
Remei refinancing



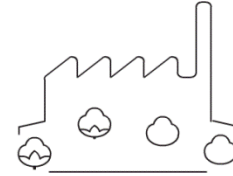
fairness



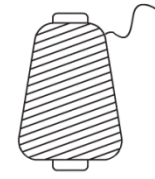
approved seeds



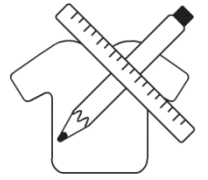
organic cotton



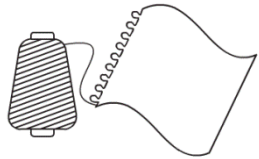
ginning process



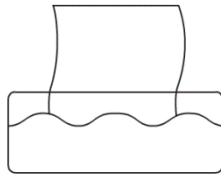
spinning process



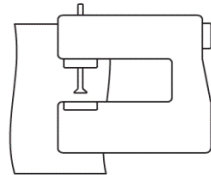
design & product development



fabric production



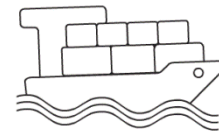
dyeing process



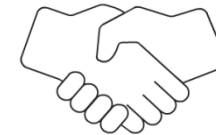
cutting & sewing process



printing, embroidery



Remei logistics



B2B



control system



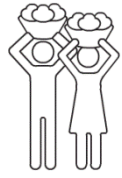
traceability



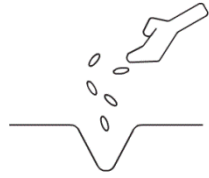
# bioRe India Ltd is starting point of unique sustainable solutions: From fibre to fashion



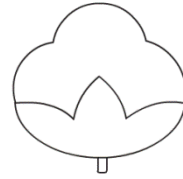
Remei refinancing



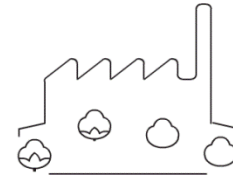
fairness



approved seeds



organic cotton



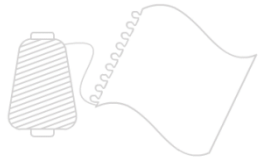
ginning process



spinning process



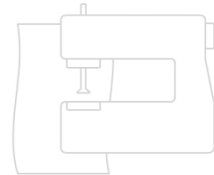
design & product development



fabric production



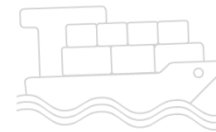
dyeing process



cutting & sewing process



printing, embroidery



Remei logistics



B2B



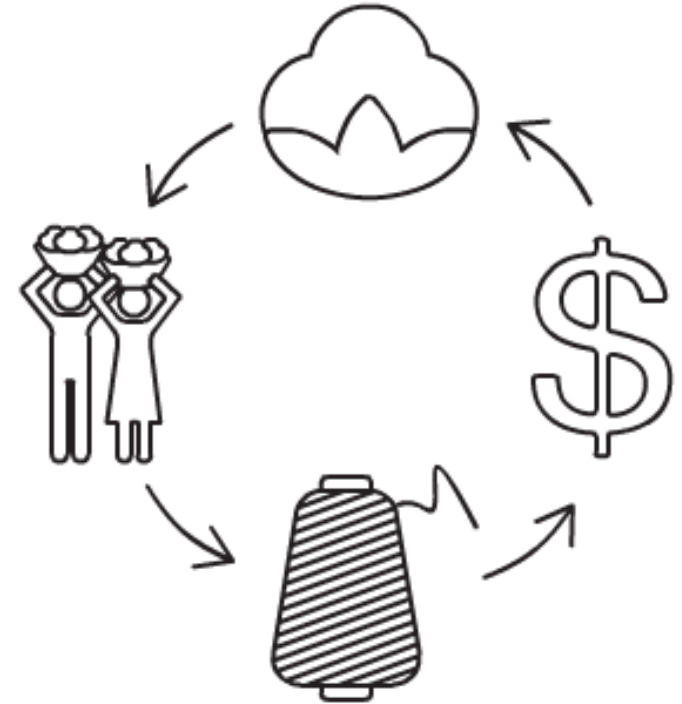
control system



traceability

# Assumption of responsibility as corporate mandate

- From raw material to trade
- Farmers play a central role in the vision
- Decision-makers with entrepreneurial will
- Timely solutions in partnerships



# bioRe : Unique sustainable textiles

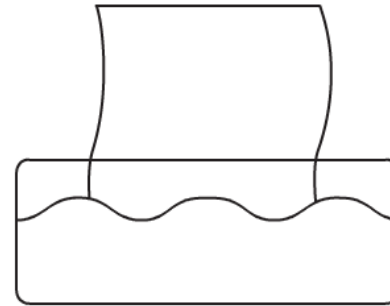
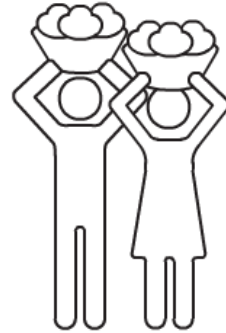
**1. ORGANIC.**

**2. FAIR**

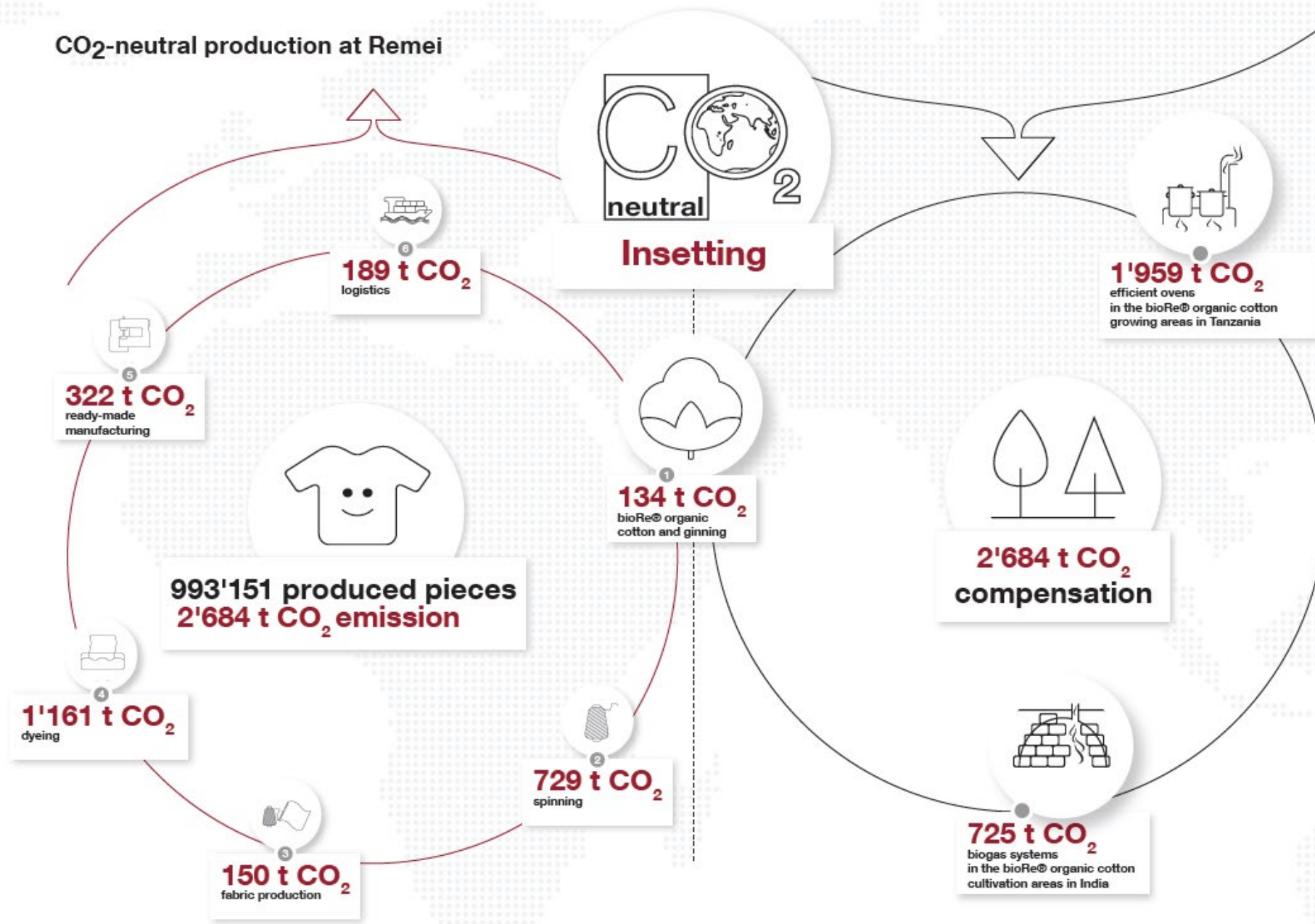
**3. ECOLOGICAL.**

**4. CO<sub>2</sub> NEUTRAL.**

**5. TRACEABLE**



# CO<sub>2</sub>-neutral production at Remei



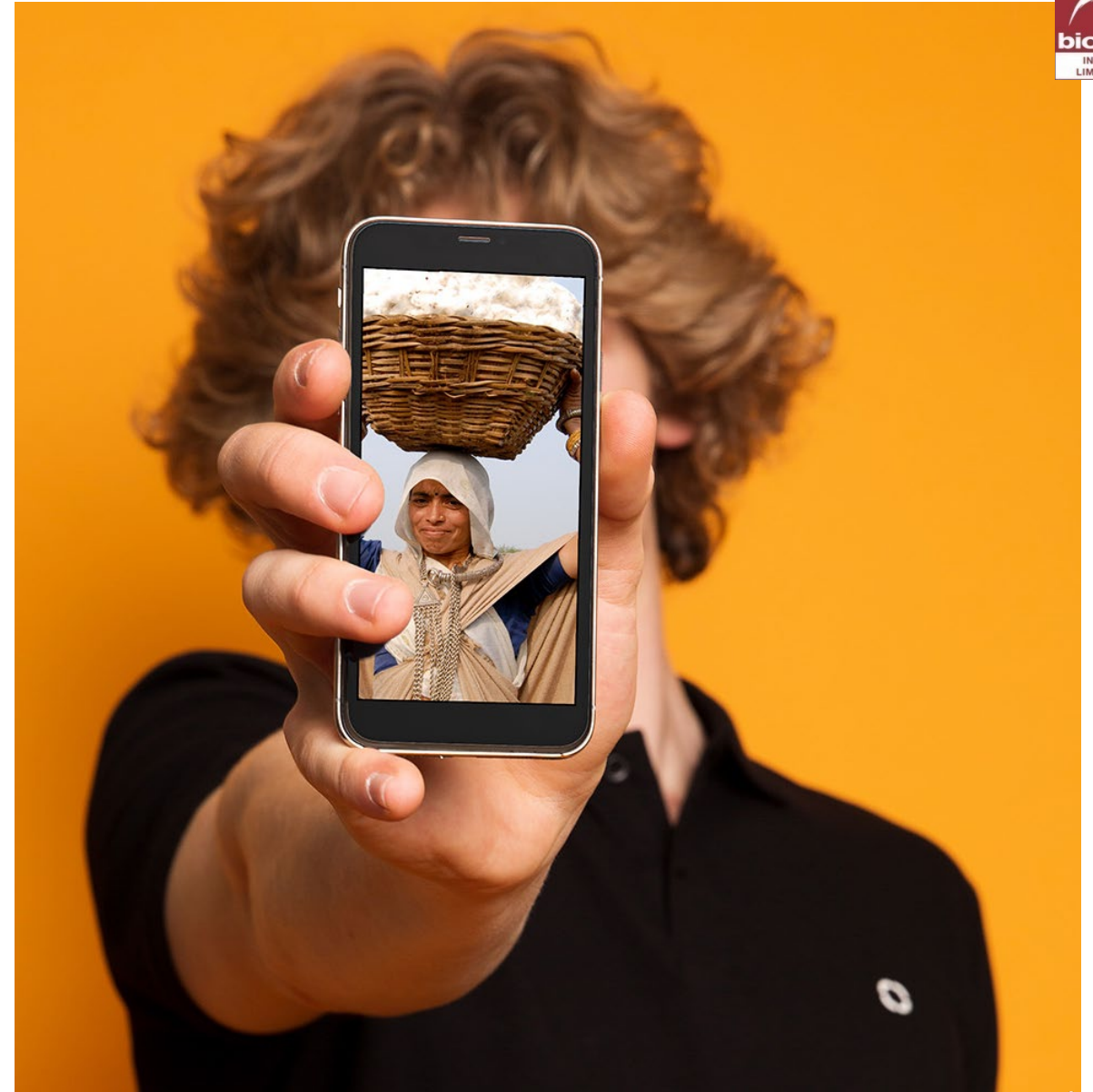
# Traceable back to the farmers




In order to ensure full transparency with regard to our activities, each product labelled bioRe® Sustainable Textiles is 100% traceable, from the seed, through farming and harvesting to production and distribution. Each step is subject to strict and regular checks by authorized inspection institute looking into and enforcing social, ecological and qualitative standards.

## Track your textile product!

In order to trace your piece of textile back along the entire value chain, all you need to do is enter the code of your piece. You will be given an overview of all production steps as well as access to authentic stories, photos, and film related to your piece of clothing.





### Track your textile product

Tracking code

Random code      Brand

# Traceability Tool



Retraceable back to farming

Traceability Code

CTAE008554

Or random no.

generate

Or brand:

select

START



100% traceable

DE  
EN  
FR  
IT  
PL



Individual brand

**Clarity for consumers**

As exclusive licensee of the bioRe® brand, Remei implements the world's highest requirements of the bioRe® Sustainable Textiles quality label for organic cotton and fair trade in textile production. Consumers appreciate the neutral, trusting orientation offered by the label.

[www.biore.ch/qualitylabel](http://www.biore.ch/qualitylabel)

## CO<sub>2</sub>-neutral

For climate protection and better living conditions for farmers

Remei has been producing CO<sub>2</sub>-neutral throughout the entire network since 2013. From 2013 to March 2019, Remei produced 6,434,221 pieces of textiles for the trade in a CO<sub>2</sub>-neutral manner. In close cooperation with the bioRe® Foundation, the 52,732 tonnes of CO<sub>2</sub> emitted during production were offset by the financing of biogas plants in India and efficient ovens in Tanzania. This led to a sustainable improvement in the living conditions of organic farmers and their families in the cotton growing regions.

<https://www.biore.ch/en/traceability/>

Network manager for the entire production process

Developer of sustainable textile collections, guarantor for the availability of organic cotton and exclusive licensee of the bioRe® brand.

RemeiAG, Rotkreuz, Switzerland



1 bioRe Cotton

Mr. Seni Farmer

bioRe® Tanzania Limited  
Mwamishali, Tanzania



2 Spinner

Mr. Babasaheb  
Prepares work schedules

Eurotex Industries & Exports Ltd.  
Kolhapur, India



3 Producer

Mr. Balakrishnan  
Production planner

Century Apparels Pvt. Limited  
Tirupur, India

4

Individual brand



# Remei trade partners

more under <https://www.biore.ch/en/style-cases/>

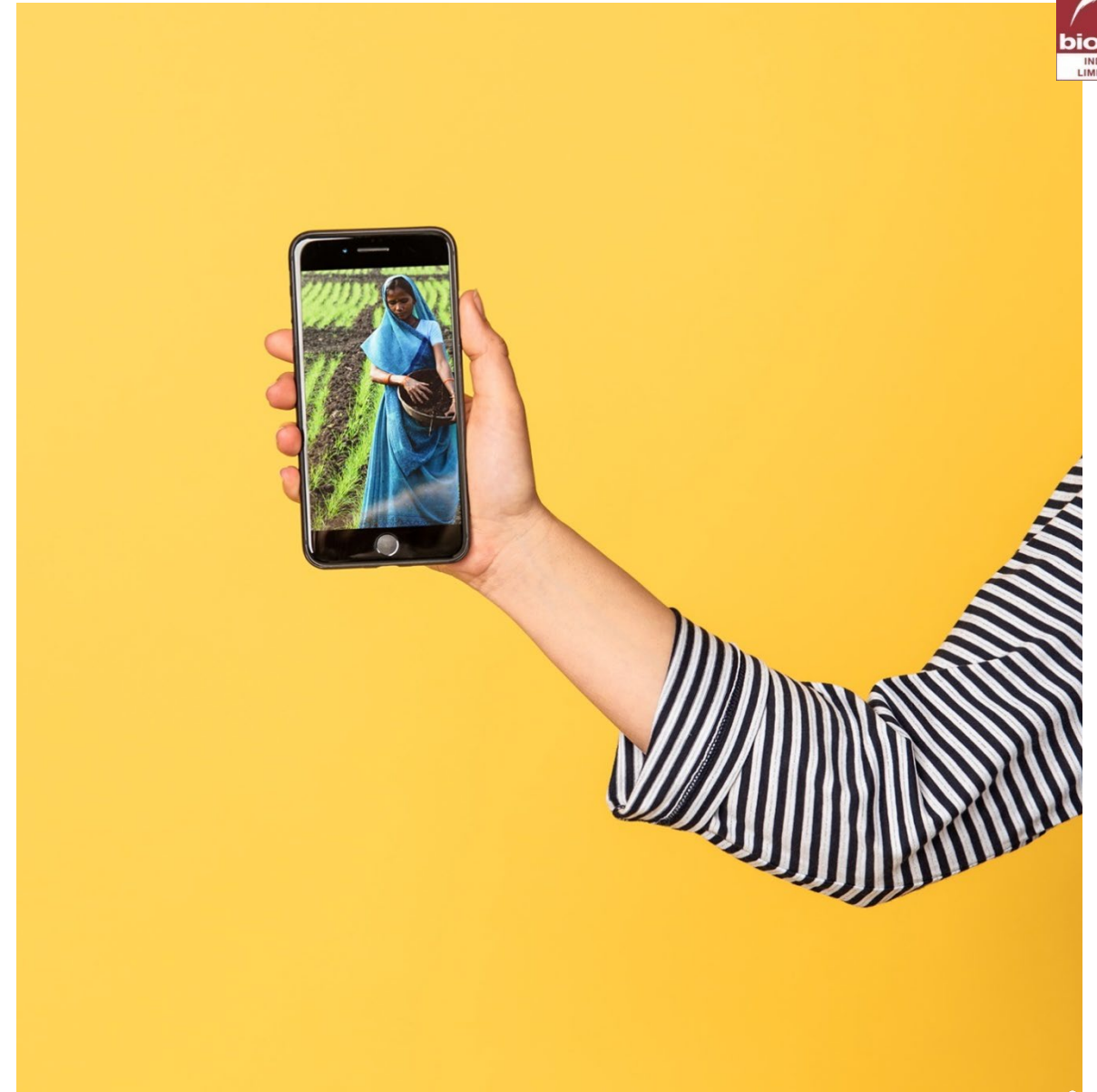




# Ready to wear fashion Ready to be responsible.

In 2019/20, Remei has given purchase guarantees to **5'092 smallholder farmers** in India and Tanzania and purchased **5'713 tons** of raw cotton. We have paid **417'876 Swiss Francs** above market price to the farmers.

We have produced **774 tons** of **organic cotton yarn** and **993'151 organic cotton textiles** for international retail companies and brands through our transparent supply chain. Our revenue in 2019/20 amounts to **17,8 Mio Swiss francs**.



# bioRe® India Ltd

- World's first and longest standing organic cotton initiative presently working with 3000 farmers.
- Incorporated as public limited company in 1996.
- Production of procurement organic cotton as core activity.
- India's first organic cotton project to develop its own Non GMO cotton seeds in collaboration with university of Dharwad.
- State of art training center, Ginning and R&D center.
- Center for biodynamic farming promotion in central India.
- The only organic cotton company recognised by Govt of India with DSIR for its R&D work.
- Nodal Training institute for Agri enterprise training under Govt of India Scheme Ac&ABC.
- India's first Ginning Unit to get SA8000 certification in year 2006.
- Collaborative partner of International cotton advisory committee, GIZ Germany, Helvetas, FiBL Switzerland and SDC on various research trials & community initiatives.

**Registered bioRe farmers** - 3000 farmers in Barwani, Dhar and Dhuliya districts)  
**Total land under organic :** -15000 acres  
**Bio cotton area:** - 6000 acres  
 Location: Kasrawad, Madhya Pradesh

*A unique business model to create a sustainable social economy*



# Areas of work of bioRe® India

## Core areas

Advisory services & training to farmers

Organic Cotton production

Internal control system & Certification

Procurement of organic cotton at premium

Ginning and pressing

## Allied areas

Research and Development

Consultancy and Trainings

Input marketing & Sales

Organic Cotton seed production

Supporting farmers to sale their other crops



# Challenges faced by the Organic cotton sector in India

- GMO Contamination.
- Non availability of GMO free cotton seeds.
- Organic cost ; everyone wants to have at at conventional price.
- Procurement and premium
- Not sufficient support to organic farmers from government compared to conventional farmers.
- Farmers mind set affected by propaganda of certain lobbies.
- Lack of inputs for pest control.
- Too much certification requirements.
- No Level playing field. Too many traders less serious players.
- Lack of connect between brands and farming organizations.



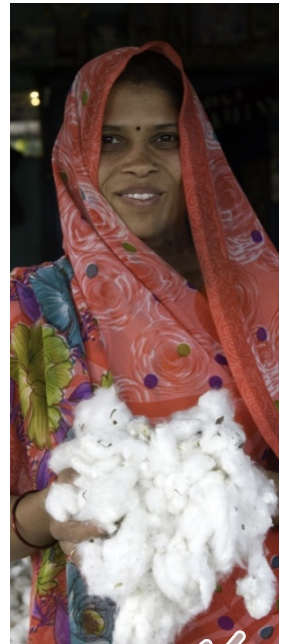
# How at bioRe® India we have faced these challenges

## Benefits to bioRe® farmers

- ✓ Purchase guarantee for 80% cotton produced.
- ✓ Market price of the day.
- ✓ 15% Premium.
- ✓ Free certification.
- ✓ Free advisory and trainings.
- ✓ Free transport of cotton.
- ✓ Interest free credits on inputs.
- ✓ Farmers are encourage to participate in participatory research.
- ✓ Social benefits through social wing.
- ✓ farmers can become shareholders.

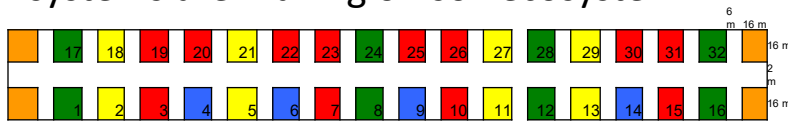
## Other approaches

- ✓ Research & Development on GMO free seeds , System comparison, research with farmers.
- ✓ Implementation of bioRe social & environmental standards.
- ✓ Support in sales of alternative crops.
- ✓ Traceability tool.
- ✓ Co2 nutralization
- ✓ SA8000
- ✓ validation through social audits.



# Long term system comparison trials in collaboration with FiBL Switzerland since 2006-07.

Aim: Is to compare which system is economically and ecologically sustainable in long run and what affects these systems are making on soil ecosystem.



- Additional plots
- Bio-dynamic
- Organic
- Conventional
- Bt-Conventional

1. Total area = 16,000 sq.m
2. Total Experimental area = 8\*192 sq.m
3. Experimental crops Cotton & Soybean & Wheat =
4. Cotton plots = 1 - 16
5. Soybean / Wheat plots = 17 - 32
6. Gross plot size =
7. Net plot size =
8. Distance between the treatments = 6 m
9. Distance between cotton and soya/wheat plots = 2 m
10. No. of treatments = Cotton - 4
11. No. of replications = 4

Organic	Conventional	GMO conventional	Biodynamic
Cotton	Cotton	Cotton	Cotton
Cheakpea	Wheat	Wheat (non GMO)	Cheakpea
Soya	Soya	Soya (Non GMO)	Soya

- Trial on farming system comparison for three crops and four system. Started in 2007, Already in its 13<sup>th</sup> year.
- Collaboration with FiBL Switzerland .
- 14 young students from world over have done masters and PHD thesis work on various subjects on this trial.
- Results of the first phase has been published.



# Non GMO seed breeding and evaluation under organic situation

- ❑ We started India's first Non GM cotton breeding and evaluation trials under organic situation in 2010-11 .
- ❑ Collaboration with University of Agriculture Sciences Dharwad.
- ❑ 5 of our Non GM seeds have been released as TFL seeds after SAU trails of three years.
- ❑ Have developed over 300 stable varietal lines, 10 Hirustum Hybrids, 3 Desi Medium staple lines and 2 compact lines for machine picking for future.
- ❑ Aim to become self sustained in our own seed needs on Non BT cotton by 2022.
- ❑ bioRe also works as consulting partner to Organic Cotton Accelerator (OCA) to support non GM cotton seed producers in India to implement OCA guidelines on Non GM cotton seed production and processing.
- ❑ We have developed Arborium (desi )lines which are suitable for making quality garment.



# Testing & Training facilities and labs at bioRe

bioRe India has received DSIR recognition for its in-house R&D work



- GMO testing lab
- Seed testing lab
- Soil testing lab
- Entomolgy lab
- Sample storage
- Germplasm storage
- Hitech weather station





# Social Projects by our social wing bioRe Association

**bioRe® association**

(The social wing of bioRe community in India)



- **18 community schools** benefiting 1200 children with free of cost quality elementary education.
- **bioRe Public School** at catering to over 700 children. 200 of them are educated for free.
- **bioRe Vocational center** for the skill training in automobiles, fashion, computer and electrical trades.
- **bioRe Mobile Hospital**, a state of art hospital on wheels with on board pathology, X-Ray, ECG, Pharmacy.
- **3850 biogas plants** have been built in operational area.
- A **handloom society** is developed as livelihood project.
- A **sanitation project** where organic farmers are given Rs 10000 to make a toilet. Over 300 units made in last three years.
- Organization of **1000 women** working on water productivity in irrigation.
- 3000 farmers are provided training annually at training center and farmers field schools.





**Let our friendship benefit others**

**Thank you very much for your valuable  
time**

**Vivek Rawal**  
CEO and Managing Director  
bioRe India Ltd

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