Around the World of cotton issues in ten months:

a guide for navigation

Michel Fok¹ and Monica Gouirand²

¹ CIRAD, UR 102, Annual Cropping Systems, Montpellier, France, Michel.fok@cirad.fr
² CIRAD, Department of Production System Performance, Montpellier, France

Abstract.

Cotton sectors are facing many issues which are quite well reported by online newspapers. Many issues are internal to the running of cotton sectors. They are little related to the international issue of market distortion, pertaining to the "cotton file" of the WTO. A number of issues impeding the development of cotton sectors are common to many countries. The lack of supply of basic services is not specific to Least Developed Countries (LDCs). Cotton is generally suffering from high production cost, with or without recurring to transgenic varieties. This global observation should lead us to question the dominating production mode.

It is amazing to find that many countries are facing serious seed issue in many forms. In some countries, this seed issue has been exacerbated after the adoption of transgenic varieties.

Considering the very wide range of issues, a very wide range of possible responses is mobilized, mainly from the governments. There might be reactions monitored by private operators, but their scopes and their scales are very limited.

Some measures are very innovative or imaginative, they are observed in emerging countries like China, Brazil and India, in fact in countries which can afford the policies they decide on.

Keywords: cotton sector; policy; support; profitability; viability;

Le Tour du Monde des problèmes du coton en dix mois :

un guide de navigation

Résumé.

Les secteurs coton de par le monde font face à de nombreux problèmes qui sont tout à fait bien rapportés par les journaux en ligne. Beaucoup de ces problèmes sont propres au fonctionnement interne de ces secteurs dans les pays concernés. Ils sont peu liés à la question internationale de distorsion de marché, correspondant au "dossier coton" de l'OMC. Un grand nombre de ces problèmes est commun à de nombreux pays. Le manque de fourniture de service de base pour la production n'est pas un handicap spécifique aux pays les moins avancés (PMA). Le coton souffre généralement de coût élevé de production, que l'on recourt ou pas aux variétés transgéniques. Cette observation générale devrait nous interpeller sur le choix du mode de production.

Il est étonnant de constater que tant de pays soient confrontés au problème de semences sous diverses formes. Dans certains pays, ce problème est accentué depuis l'adoption du coton transgénique.

Au regard de la multitude de problèmes, une grande palette de solutions possibles est mise en œuvre, essentiellement à l'initiative des gouvernements. Il peut y avoir des réactions provenant des opérateurs privés mais elles visent des domaines très ciblés et elles sont d'ampleur limitée.

Certaines mesures mises en œuvre sont très innovantes ou imaginatives, elles émanent de pays émergents tels que la Chine, l'Inde et le Brésil, en fait des pays qui ont les moyens de la politique qu'ils décident.

Mots clés: secteur coton, politique, soutien, rentabilité, viabilité
1 Introduction
This paper may look misplaced in a conference dealing with cotton policies as it is not dealing with specific policy measures in a specific country. Indeed, it is not dealing with the analysis of policy impacts but it is addressing the various facts and phenomenon that could justify cotton policies.

This paper is the result of an analysis of the news that the ISSCRI Project has contributed to circulate through its Newsletter from April 2007 till February 2008. The objective of the ISSCRI Newsletter was to inform about the cotton stakeholders' interaction on cotton policies. We have willingly decided not to report the facts related to the treatment of the Cotton File at the WTO because this is already addressed by other channels like the WTO website itself and by various NGOs, e.g. IDEAS Centre or Oxfam International.

We cannot claim that we have covered exhaustively what has happened in the cotton world during the mentioned period. We have limited ourselves to circulate information accessible through online newspapers in English, French, Spanish, Portuguese and Chinese. This is far from covering all relevant information available. Greece has not been covered because we have not insisted enough to track Greek newspapers with English sections. Besides, in a few countries, topics with political implications are still little reported in Newspapers. We have almost not reported the actions related to the new Farm Bill in the USA because the IDEAS Centre is doing it quite well.

This reservation being made, we think that we have implemented a wide enough overview on what has happened during the mentioned period in about twenty cotton countries. This vision is summarized in a table classifying the issues in domain, giving illustrations of these issues in various countries and indicating the solutions being retained although they will not be necessarily effective. This table is a tool that people interested by the cotton policy issues could complement.

In this paper, our analysis is focussed on a) the nature of issues raised which call upon policy intervention, b) how issues have been raised, c) what are the measures monitored by governments and d) what private operators have tried to do on their side. This analysis frame gives the structure of this paper.

The ISSCRI Newsletter has reported more than two hundreds news during the mentioned period. It would be boring to go through these news in detail. They are accessible through the website http://www.isscri.org/content/view/full/834, their tracks in pdf documents have been kept and can be obtained by addressing to the authors.

2 What are the issues calling upon policy action
Of course, one can consider that the lack of profitability is at the basis of the calls for cotton policies. Cotton production, like any commodity production, is conducted for profitability reason. This reason is nevertheless too generic to properly guide policy action. It is far much better to identify what are the various factors beneath the observation of lack of profitability in various countries.

The lack of profitability could be claimed as such by cotton sector stakeholders. It could be revealed by revolting tragedies. More frequently, cotton stakeholders capture the attention on specific factors which hampers the achievement of fair profitability.

2.1. Cotton sometimes mother of tragedies
Cotton, in some places, could be source of individual or collective tragedies, an extreme expression of the lack of profitability in engaging with its production. This phenomenon is calling upon the way cotton is being produced and not exactly cotton per se.
At individual level, death and suicides of cotton growers remain frequently reported in India while they have started since 1997/98. Cotton production in some provinces of Argentina is not sufficient to ensure decent life to many growers which are greatly dependent on assistance programme. The abuse of child labour is reported by a group of activists in Uzbekistan and the call for the boycott of the cotton from this country has already obtained some positive echo (like Mark & Spencer).

Individual tragedy linked to cotton production is not limited to smallholding growers. Commercial farmers growing individually on thousands of hectares have been threatened by mass financial collapse in Brazil because of their default to repay their production credit.

At a collective level, cotton production is claimed to be under the threat of disappearance, both in Francophone African countries and in the USA, opponents in the WTO arena regarding the issue of subsidies. In Pakistan, cotton production is assimilated by a few observers as a "concentrate of problems" which little justifies its continuation.

2.2. Structural lack of profitability
The structural lack of profitability is felt for political reasons in several countries. In Paraguay, even the Government shows how tired it is with cotton by observing that several decades of cotton policies have not been positively compensated. The same feeling is observed in India where cotton is not progressing in spite of ideal natural conditions in some regions.

The lack of profitability could result from competing production. In the USA, "cotton blues" is gaining farmers who observe that corn and soybean are far much profitable when anticipating reduced support on cotton. In Brazil, crops like soybean, sugarcane and even maize are proving to be more profitable.

Beyond the aspect of competition from alternative crops, the cotton specificity of high production cost is pushing farmers to turn their back to this production in India and in Brazil notably at the level of family farming.

2.3. Profitability penalized by cotton price
Many sentiments are expressed with regard to the cotton price farmers have gotten. This price is felt unfair when farmers observe that they can merely survive while other stakeholders are making big profit in marketing cotton (India). Facts of price manipulation at the marketing stage reinforce the feeling of inequity (Pakistan).

The low level of prices is denounced in several countries, the responsibility of the application of Free-Trade Treaty is pointed out (Mexico) and compensation is requested. It is reported that in Xinjiang (China) farmers were forced to market their cotton when the price was low. Where farmers could enjoy the policy of minimum price policy, the low level of this price is denounced (India, Brazil).

Farmers furthermore suffer from low price when excessive discount is applied for quality gap, especially when it happens after floods have both reduced the quantity and the quality of their production (India).

2.4. Profitability hampered by the lack of service supply
Although this lack is indeed frequent in the developing countries producing cotton, the News we have reported have emphasized the lack of technical assistance from governmental services to help face pest infestations, in particular mealy bug infestations which have touched India and Pakistan. In this latter country, the real contribution and effectiveness of research has been explicitly questioned.
2.5. Profitability restrained by shortfalls in the supply of production inputs

These shortfalls pertain to serious delay in the input supply (Paraguay), to the continuous increase of the input prices (Argentina), sometimes resulting from organized shortage (Pakistan).

In spite of paying high prices, farmers could suffer from spurious insecticides (Pakistan). This is a risk when buying smuggled pesticides which have become common (Brazil, although not yet on cotton).

2.6. Profitability handicapped from the start by seed issues

Cotton growers in several countries cannot access to the seeds they need (India, Paraguay, Uganda). When they can, they could be victims of spurious seeds, in particular when GM varieties are available (India, China).

The price of seeds has substantially increased in several countries, frequently as a consequence of the release of GM seeds (China, India). In spite of the Government involvement to force 50% decrease of the Bt-cotton seeds in India, the seed price is not definitely solved with the attempt of releasing the second generation of Bt-cotton.

From the perspective of principles, the release of GM seeds has induced a harsh debate on the preservation of the farmers' privilege to use seeds from their own production (Argentina).

2.7. Profitability for lack of productive technologies

The cotton productivity can be impeded by production technologies. The lack of technology progress is denounced as a structural factor of low competitiveness (Argentina). The emergence of new pest infestations has abruptly decreased yield: Pakistan (mealy bugs and virus), India (mealy bugs). The suspicion has also accompanied the illegal introduction of GM seeds from India to Pakistan about the simultaneous introduction of new pests or diseases which are still to be clarified.

The lack of water is threatening the continuation of cotton production (Australia). The development of furthermore water efficient production technique is the challenge to overcome, otherwise, the water dispute in rural areas would generalize.

The shift to using GM seeds is a matter of debate in many countries to sustainably gaining productivity. This debate is both vivid in countries which have already adopted GM varieties and those which have not. In Pakistan, the expected authorisation has been postponed several times and the country is already invaded by illegally imported seeds from India. The degree of stringency in the process of authorizing new GM varieties is permanently questioned (India) by pointing out its negative impacts in technical and economic terms. Australia is unique by its way to consider to specifically authorize the use of GM varieties on cotton in the North-West part of the country.

2.8. Profitability hurt by unfavourable production credit

The dramatic consequences of unfavourable production credit have been already reported for India. Indeed, many countries suffer from this unfavourable factor far more than what has been reported through the ISSCRI Newsletter.

This situation is not specific to family or smallholding production scheme. Even commercial farmers could be victims of unfavourable or unfair credit conditions like in Brazil where many defaults in credit repayment have been reported and have called upon the State intervention to prevent mass collapses of commercial farms.

2.9. Cotton policy questioned

Cotton policies are questioned sometimes for its total lack, like in Paraguay, but they mainly are criticized for their non-suitability either for non-adaptation to internal constraints or to external
The organisation of the cotton sectors is debated when illegal or unfair marketing is made possible (Zimbabwe, Zambia). The policy principles, privatisation and liberalization-oriented, is frequently argued (India, Peru, Ghana, Cameroon).

The shortfalls of the cotton policies are highlighted when they fail to meet the requirements of the international market because of the production of poor quality (cotton contamination in Pakistan), or the default in the respect of contract sanctity (China).

Reversely, cotton policies could be criticized for the excessive dependence they induced towards the world market of cotton, by lack of local valuation of cotton products. With regard to cotton fibre, African countries suffer seriously from the lack or collapse of local textile industries (Kenya, Uganda). Where the textile industry is well developed, it could become endangered by the stagnating production (Pakistan).

The local valuation of cotton seeds for animal production could be hampered by excessive price of feeding seeds (Senegal). When the processing of cotton seed into oil is encouraged, serious public health trouble could break out when processing techniques are unsafe (Mali).

Cotton policies are of course criticized externally. This is what has happened in the WTO arena where Brazil has endorsed the role of fair player. This international status could be argued because of the application of a minimum price policy this country has little publicized.

2.10. Critique on policy implementation
Cotton policies might be positively appreciated, but its conduct harshly questioned. This could be a matter of bureaucracy in executing policy, notable in distributing the money promised by the Governments e.g. to relieve cotton growers' distresses (India) or to promote better production management (Australia).

The critique is harsher when governments do not respect their commitments, notably in providing support to price or income. In Argentina, farmers were still waiting for the money dating back to the former presidential election. In Colombia, floods have provoked governmental emotion but the money it led to promise has not come. The same with Peru where farmers are still expecting the money destined to compensate the negative price effects resulting from the application of the Free-Trade Treaty with the USA. The governments are not always to blame; they may have disbursed the money which has vanished before it reaches the cotton stakeholders (Nigeria).

2.11. Cotton production questioned
The relevance of cotton production has permanently been questioned because of the potentially negative effects in the social, health and environment areas. The recourse to highly toxic insecticides is persisting and a few countries have moved to starting banning certain non-adequate insecticides (China).

The marketing of transgenic or biotech cotton has revitalized the debate on the cotton production effect on health and environment. The polemic remains persistent with the issue of sheep mortality in India after grazing on cotton crop residues;

2.12. Factor beyond national control
Cotton policy could also be called upon for factors which go beyond the control of a specific country. This is the particular case of the currency exchange rate or more precisely the US Dollar depreciation towards most hard currencies. This depreciation has more than nullified the effect of world price increase in the Francophone African countries whose money is linked to Euro. It is also the factor which has threatened the financial viability of the commercial farms in Brazil which could not anticipate the extent of the US dollar depreciation.
3 How issues are raised

3.1. Civil society, a conspicuous alert actor
The civil society has played an active role in alerting on a selective list of issues. It has been a key player to inform about the tragedies which have touched the cotton growers (the issue of farmers' suicides by hundreds if not thousands in India).

It favoured the topics related to social and environmental impacts of cotton production. Alert is particularly active with regard to GMOs, protesting against their authorization, alerting on negative impacts (like animal mortality), criticizing the lack of information on GMO use or control. The increase of pesticide consumption is pointing out, including in countries where Bt-cotton has been adopted and where pesticide use reduction could be expected. More recently, the civil society has alerted against the abuse of child labour in Uzbekistan.

3.2. Alert through organized growers’ protests
The organization of growers’ protest marches is encountered mainly in South American countries. In Argentina, it was to remind the Government of its promise of price and income support. In Paraguay, it is to ask for explicit cotton policy. In Brazil, it was to protest against the increase of the input prices and to demand the re-scheduling of credit repayment. In Peru and Colombia, farmers have organized marches to obtain to be a part in the negotiations of the modalities to compensate the effects of the application of Free-Trade Treaty.

3.3. Less visible but effective protest by other cotton stakeholders
The other stakeholders are not sufficiently numerous to consider marching as an effective way of putting forward their points. Nevertheless they can more easily accede to decision-makers like the ginners in Spain where the modalities of subsidy payment have been changed, more favourably to ginners' interest.

3.4. Alert through judicial cases
The judicial cases could be put forward as an initiative of syndicate of cotton growers. In Brazil, a suit was considered to attack the Government for not having complied with the country's Constitution in properly updating the minimum price level.

In India, alliances of several stakeholders have put several issues into the judiciary ground, like the connection between low price and farmers' suicides or the behaviours of the Bank agents in recovering credit which have forced a few farmers to commit suicides.

3.5. Increasing amplification role of mass media
All the alerts in their various forms as mentioned above would not reach the national, regional and international audiences without the relaying role of newspapers and other mass media.

This relay role could be actively looked for. The Francophone cotton producing countries have got used to convey press conferences to inform about their views and positions.

Reversely, a few newspapers could also try to interfere on the decisions in other countries. This is the case of a Senegalese one about the privatisation of the French cotton company. The fact this company eventually was taken over by a firm very active in Senegal surely is just a coincidence…

3.6. Appropriation of cotton issues by politicians
This phenomenon is quite widespread regardless of the development status of the countries. The politician appropriation could target at pressuring for governmental intervention (India), or for policy change in the support to cotton production (USA). It could target at specific issues, like quicker decision on GMO (Australia, Pakistan), or less stringent procedures for GMO. In the
United Kingdom, a MP speaks out in favour of GMOs which are somehow diabolized in Europe.

3.7. **Government capable of identifying strong policy orientation**
A few governments do not just respond to specific requests of cotton sectors, they could be capable of taking strong positions. In India, the Government keeps on fighting with a multinational corporation to have the prices of cotton seeds under control, by opposing to the marketing of the second generation of transgenic cotton varieties and by re-integrating the seeds into the scope of the Essential Commodity Act.

In China, the Government has decided to resume a policy of subsidy on cotton after its entrance into the WTO.

In Brazil, the government continues its fight against slavery in the fields (although it does not concern cotton fields) and is openly talking about acceptable measures to support agriculture in spite of its position before the WTO.

4 **What are State-oriented solutions**
In most countries, the State has responded to the issues raised by intervening temporarily or structurally, focussing at specific topics or at broad scope aspects.

4.1. **Commitment in the supply of service and inputs**
The Governments mainly intervene through the channels of research and training, only occasionally in supplying inputs.

In Pakistan, a big research has been identified to deal with the infestations of mealy bugs. Similar research is funded in Australia to improve water efficiency. Studies are funded to assess the reality of the debated impacts of GM cotton on animal production (India).

Information provision appears to be critical. The Indian government has decided to engage into informing farmers on using quality seeds and warn them against the risk of spurious seeds. At another level, the USA is putting forward the approach of e-extension to help growers command comprehensively cotton production. More specifically, women are benefitting from special training in using insecticides in Brazil.

Paraguay provides the unique example of the government commitment in contemplating importing seeds to compensate the shortage observed in the country.

4.2. **Demonstration of concerns to agriculture by radical decisions**
In the context of cotton sector crisis, many governments have demonstrated their concern to the survival of their cotton sectors (Mali, Senegal, Côte d'Ivoire, Burkina Faso, and Spain).

In Spain, the negotiation of the cotton policy reform at the European Union level seems to have been transferred to the authorities of the main cotton province.

In Burkina Faso, the government took the strong political decision to move forward using GM varieties in spite of the debate in and out of the country.

In Australia, the cotton growers' cultivation practices have been acknowledged to be in line with the government concern to environment while cotton production had been criticized for its impacts on natural resources.

In China, beyond resuming a subsidy policy (although at limited level), the government is investing to improve the living conditions and prospects of the farming families notably through compulsory and free education.
4.3. Facing the governmental role of regulation

The regulation role is implemented both to ensure more efficient framework for the development of cotton sectors and to control the performance of the supply of services and inputs.

The issue of adjusting the cotton sector organization is more relevant in Africa. New legislations are pending (in Zambia and Zimbabwe) to better administer the seedcotton marketing and safeguard the interest of the investors in ginning and assistance to farmers.

The governments get involved in controlling the seed production and distribution (India and somehow China as well). They commit with the control of seed price formation, either by re-categorizing seeds as essential commodity (India) or by launching a subsidy policy (China).

With regard to the functioning of the input markets, the Brazilian government has set up a special working group to assess the reality of the control by an oligopoly before taking appropriate actions. In China, some particularly toxic pesticides have been banned.

In the area of production credit system, the Indian government recently intervenes to stop the abusive practices of the officious credit operators. The Brazilian government has contributed to help growers from collapsing by renegotiating the repayment term and credit rate. Its keeps on pressing to achieve lower credit rate to farmers.

In Mali, the government has finally reacted to stop the operation of many oilseed crushers with inappropriate technology which implies great sanitary risk.

4.4. Moving towards better governance

Several countries have engaged a better governance approach through occasional or permanent multi-stakeholders discussion. This is the case in Burkina Faso, Mali, Senegal and Côte d'Ivoire to share the analysis of the current crisis of the cotton sectors there. In Mozambique, such interaction particularly took place at the time of determining the minimum price to farmers.

In Brazil, the Government has launched a public consultancy through internet about the issue of GMO. In India, regarding the same, the government has decided to move toward transparency and to permit public access to the information related to the bio-security tests.

Paraguay is still far from these considerations but its government is contemplating to set up an information system on the cotton growers and their areas, as a tool to implement and follow its cotton policy.

4.5. Commitment in infrastructures

There are not many examples of governmental commitment in the infrastructures to permit or improve cotton production. Angola is settling irrigation schemes thanks notably to the aid of the Chinese Government. To some extent, the Australian government has the same target by assisting cotton growers to update their irrigation systems.

4.6. Diversified options of setting up special funding mechanisms

In many countries, new funding mechanisms are taking place mainly to provide pluri-annual support to cotton growers or farmers in general.

There might be occasional funding, to permit seed production (Uganda) or to compensate the effects of unfavourable exchange rate (Brazil).

The pluri-annual support frequently expresses itself in new subsidy actions, but not exclusively. China has launched a quality seed subsidy program. Mexico's subsidy program is meant to reduce input and production costs in general. Brazil keeps on implementing its minimum price policy. Nigeria has funded a program for the revitalisation of the whole cotton and textile sector, although the disbursed money has vanished before reaching the beneficiaries. China is particular
in addressing the issue of income gap and purchase power of the farmers, by contemplating a subsidy program to house appliances.

Many other funding mechanisms are not related to real subsidy. Brazil has engaged funds to alleviate farmers' credit burden, to enhance diversification of productive activities in family agriculture.

The mechanisms encountered or contemplated in a few countries pertain to compensate the effects of Free-Trade Treaties (Mexico, Peru and Colombia) or the macroeconomic effects, to compensate inflation (Venezuela) or to permit price stabilisation (Mali).

Finally, Brazil has launched a mechanism to permit family farmers to benefit from crop insurance.

4.7. Commitment in regional cooperation

There are not many actions of this kind being identified. The most conspicuous is the joint initiative of Brazil and Argentina to trade without dollar, so as to depend less on the vagaries of the US currency. This initiative is not specific to cotton but it is the unique concrete action to address the issue of trade dependence on currency fluctuations.

5 What are private-monitored actions

The actions originated from the private operators can be categorized according to their positions in the cotton sector. They can be directly involved in the cotton sector operation, or not at all. The scope of the implemented actions can be very diverse and the most powerful players, from the financial viewpoint, are not necessarily committing in the most meaningful actions. Globally, the actions or solutions implemented or monitored by the private operators are much more reduced than the public ones.

5.1. Farmers’ monitored actions

Farmers mainly pass through the solution of organisation, at national or regional level to defend their cause in the cotton sectors. This is notably the case in Francophone African countries, with sometimes financial assistance from the international community, like Burkina Faso by the European Union.

In the USA, the farmers' organisation process has led to real lobbying power, so as to effectively influence policy making by the Government.

In Brazil, the cooperation approach has recently dealt with the defence of the cotton image of the country. A cotton seal for non-slavery has been set up to inform that cotton production is not based on labour exploitation.

5.2. Non-farmer monitored actions

Actions can be observed from the input suppliers and from ginners, either positive or negative ones. In India, a few seed distributors have decided to challenge the governmental decision to exercise price control on seeds. In Pakistan, the extent of illegal use of Bt-cotton seeds likely has benefitted from the complicity of a few seed distributors. In the opposite, in Australia, it has been set up an innovative risk sharing procedure, a kind of safety net program, which permits cotton growers to reduce the cost of Bt-cotton seeds in case of unfavourable climatic conditions.

In Africa, ginners have committed in supplying input and technical assistance to smallholders, notably in out-growers schemes, but this is now endangered by the non-controlled entrance of new ginners (Zimbabwe, Zambia). In Spain, the ginners have succeeded to make modify the subsidy payment modalities so that they can expect having more cotton to gin.
5.3. Textile industry-monitored actions

In India, both to secure raw material provision and to ensure better income to cotton growers, some textile industries have moved towards contract farming in India. In Pakistan, the concern for the issue of fibre contamination by foreign matters is pushing the textile industry to advocate an industry alliance for contamination-free initiative.

In China, the textile industry is more involved in the decision of establishing a black-list of dishonest cotton contractors.

5.4. External actor-monitored actions

One of the most exciting actions the ISSCRI Newsletter has reported pertains to the initiative of a University in Argentina to provide backing up to smallholders, helping them get access to production inputs at better costs and to better command production technique.

In Uzbekistan, a group of external people is assuming an activism role by warning against the abuse of child work and calling for the boycott of the Uzbek cotton.

In Nicaragua, external actors are advocating a change in the production mode of cotton, after the disaster of the 1970s (documented cases of health troubles related to excessive chemical use on cotton). It is expected that a cotton revival could be possible through the shift to organic production.

6 Conclusion

Cotton sectors are facing many issues which are quite well reported by online newspapers because the cotton sector stakeholders find convenient to use mass media to make their viewpoints known to a large audience.

Many issues are internal to the running of cotton sectors. They are little related to the international issue of market distortion, pertaining to the "cotton file" of the WTO. The ISSCRI Newsletter has willingly not dealt with this file but it has contributed to demonstrate that no country is perfectly virgin in terms of support to cotton production. Brazil, in spite of appearing as the "White Rider" is implementing a minimum price policy which is little known.

A lot of issues impeding the development of cotton sectors are common to many countries. The lack of supply of basic services is not specific to LDCs. Cotton is generally suffering from high production cost, either transgenic varieties are used or not. This global observation should lead us to question the dominating production mode. It is amazing to find that many countries are facing serious seed issue in many forms. In some countries, this seed issue has been exacerbated after the adoption of transgenic varieties.

Towards the very wide range of issues, a very wide range of possible responses is mobilized, mainly from the governments. There might be reactions monitored by private operators, but their scopes and their scales are far much limited. Some measures are very innovative or imaginative, they are observed in emerging countries like China, Brazil and India, in fact in countries which can afford the policies they decide on.

From the perspective of social scientists, cotton sectors in the world are vivid systems really worth being closely observed so as to identify sources of issues and understand the mechanisms of solution finding and appropriation. The diffusion of the ISSCRI Newsletter is a contribution towards this direction. It has recorded so far several very positive feedbacks which encourage us to keep on, even after the completion of the ISSCRI Project, under modalities still to be determined.