

FINAL STATEMENT FROM THE WORKSHOP

In recognition of the country's position as the World's leading cocoa producer, 120 participants from 14 countries involved in the commodity, met in Abidjan, Cote d'Ivoire from 17th- 20th July 2007. The aim of the workshop was to discuss the increasing threat from the globalization of cocoa pests and diseases and to decide on a strategy to minimise the risks of this globalization occurring and how should the cocoa stakeholders and authorities respond should an alien pest or pathogen be introduced into a new region. The participants, many of whom are experts in their chosen areas of cocoa breeding, pathology, entomology, agronomy, farmer training etc, came from SE Asia and the Pacific, Latin America and Africa as well as from Europe. They shared their collective experience in scientific presentations and in brain storming sessions to determine strategies for containment of these biotic constraints.

The workshop was held under the distinguished patronage of his Excellency, the President of Cote d'Ivoire, the patronage of the Prime Minister and the co-presidency of the Ministry of Agriculture and Minister of Higher Education and Scientific Research. Now follows a synthesis.

The workshop was formally opened by his Excellency, Mr Amadou Gon Coulibaly, Minister of Agriculture who made a keynote address where he expressed his concern about the impact of these cocoa pests and diseases on the social and economic development of the country.

The first scientific session (Session 2) involved presentation of work that had been conducted in Brazil on Witches' Broom disease since 1989 when the disease had been introduced into Bahia, the main cocoa producing area of Brazil. Use of surveillance techniques, adoption of *cordon sanitares* and attempts at eradication when the disease was first introduced and the subsequent development of resistant germplasm produced through breeding programmes enhanced using molecular techniques and in conjunction with biocontrol as a management strategy was very useful as a "lessons learnt" approach for participants from other regions.

In Session 3, 5 presentations concerning the current status of 5 other major constraints to cocoa production, were presented. Frosty pod, a fungal disease confined currently to Latin America is a devastating disease and probably represents the most serious threat to cocoa production globally, having replaced Witches Broom in all countries where both co-exist. The spores are long lived, can travel long distances and withstand environmental extremes. Other constraints discussed included, Cocoa Pod Borer, a pest confined to SE Asia and PNG and some mirid species, *P.megakarya* and CSSV (Cocoa Swollen Shoot Virus) which are confined to West Africa. Management practices are available for the insect pests but *P. megakarya* (aggressive Black Pod) and CSSV remain as major challenges for West Africa and to other regions, should they escape to other cocoa producing regions.

In Session 4, presentations examined how to prevent the globalisation of these pests and pathogens and included the concept of Pest Risk Analysis; comparisons being made to other crops. Here, pathways by which alien organisms can invade countries can be identified and once identified, management of these pathways can be undertaken. The concept of Biosecurity planning was discussed with countries now planning pre-emptive action to exclude pests rather than try to manage the situation after the alien pest arrives; each industry within a country will have its own Biosecurity plan. One potential pathway for introduction of alien pests and pathogens could be via the exchange of germplasm for breeding programmes but mechanisms for the safe movement of germplasm are in place. Participants were alerted to the need for third country quarantine (often in Europe) which allows the safe movement of cocoa material from one cocoa producing area to another and which has been a crucial part of some of the global breeding programmes that are currently on-going. Post-entry quarantine in-country is also needed with phytosanitary certification under the auspices of national and regional phytosanitary organisations. The final presentations in this session dealt with the need for improved surveillance and quarantine for disease free countries and with mass methods of information dissemination for sensitizing farmers to the symptoms of major pests and diseases so that rapid detection will occur. This is vital since if the pest is introduced then the more rapidly the authorities are alerted to the

problem, the greater the chances that rapid action can be undertaken to eradicate the alien pest or disease.

In Session 5, the potential of resistant germplasm in the management of these pests and diseases was discussed. Major advances have been made over the last 10 years or so with networks of breeders being established worldwide and improved material (for disease resistance, yield and other traits) being developed in the International Cocoa Collections in CATIE, in CRU (Trinidad) and in Brazil such that material is now being passed through third country quarantine and will be available to other national and regional breeding programmes. This material provides an opportunity for preventative breeding with this improved germplasm being imported into many cocoa producing countries to be tested under local conditions including how they respond to indigenous pests and pathogens.

In the final scientific session, participants took part in facilitated group discussions about the components of a strategy for preventing the globalization of cocoa pests and diseases and if the worst case scenario should occur, how best to manage the situation. Some of the key points were :-

- Prior to any introduction and in preparation for such an event, it was considered that commitment and co-operation from all stakeholders in-country was essential and bio-security planning by the whole cocoa sector was needed – including preparation of PRAs to identify key pest pathways into cocoa producing countries. Once identified, then these risks can be managed. Linked to this was the urgent need for preparation of emergency response plans and contingency planning involving all cocoa stakeholders and the relevant Government authorities.
- Linked to the above, improved surveillance about threats both regionally and globally with international collaboration needed to share expertise and experiences of management practices elsewhere.
- New legislation may be needed in-country to enforce any action that may have to be undertaken including setting up of *cordon sanitares*, eradication of infected material, compensation to growers and that would mean a commitment of finances in some sort of national action plan which would involve all key Government agencies.
- Raising awareness of these issues in policy makers was essential so they recognise the threats and commit the necessary finance and resources before the event occurs and after introduction (should this happen).
- Raising awareness in producers and all stakeholders in the cocoa supply chain to alert them of the symptoms so that early detection is possible should the pest be introduced.
- Raising awareness in all stakeholders along the supply chain that if the pest invades, stringent measures may be needed such as eradication but that some form of compensation will be made available.
- Raising awareness to encourage producers to obtain improved material from certified sources and discourage growers from using “unofficial germplasm”.
- Implementing preventative breeding so that all local breeding programmes receive resistant material that can be tested under local conditions in conjunction with other management practices such as cultural, chemical and bio-control and can be multiplied for distribution to growers.
- Raising awareness of the threat in the plant health authorities of the country, about how to recognise the symptoms, how to control these pests and diseases and to alert port authorities, customs staff and border posts etc to be vigilant. Improvement of post- entry quarantine also recommended
- Finally a large amount of training and capacity building was needed– from producers, through the supply chain, port and border officials, plant health officials etc. Recognition of the symptoms to aid early detection and training in management techniques were two aspects highlighted

The proceedings will be made available to participants and the outputs of the workshop will be used as the basis for a project proposal to the CFC facilitated by the ICCO.

The participants would like to thank the Government of Cote d'Ivoire for its hospitality in hosting this workshop.