



ICO Council Meeting
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CFC/FAO/ICO/06 Enhancement of Coffee Quality through Prevention of Mould Formation

Project Update

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Enhancement of Coffee Quality through Prevention of Mould Formation

Context

Built on pilot study funded by ISIC in response to concern over OTA in coffee
EC discussion on introduction of maximum limit for OTA in coffee
Comprehensive programme of prevention recommended to limit and control OTA
Global project approved by CFC in 2000



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Context

Core activities in Brazil, Colombia, India, Indonesia, Côte d'Ivoire, Kenya, Uganda

Total financing:

- CFC - \$2,586,000 (incl. Ecuador - CFC/ICO/25FT)
- Dutch Govt. - \$1,500,000
- ISIC - \$367,000
- CIRAD Counterpart - \$200,000
- National Counterpart - \$1,588,997

Associated FAO funded Technical Cooperation Projects - \$1,162,000 (Thailand, Uganda and Vietnam)



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Collaborating Centres

Brazil - *Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA)*

Colombia - *Federación Nacional de Cafeteros de Colombia (CENICAFE)*

Côte d'Ivoire - *Centre National de Recherche Agronomique (CNRA)*

India - *Coffee Board of India (CBI)*

Indonesia - *Indonesian Coffee and Cocoa Research Institute (ICCRI)*

Kenya - *Coffee Research Foundation (CRF)*

Uganda - *Uganda Coffee Development Agency (UCDA)*



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Key Project Aims

Improved understanding of factors causing OTA contamination in coffee

Guidelines established for the application of GAP, GHP, GMP and HACCP to the coffee chain

Producers and processors able to sustainably apply appropriate technologies and improved practices consistent with GAP, GHP and GMP

Increased amounts of coffee free from, or with significantly reduced risk of, OTA contamination



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Project Philosophy

Commitment of collaborating centres is key:

- Degree of autonomy in deciding national priorities
- Both technically and financially committed (via counterpart contributions)

Field trials/investigations under diverse geographical and climatic conditions - collaborating centres deliberately selected in different regions

Emphasis on capacity building to enable project partners to become centres of expertise in all aspects of OTA reduction, and facilitating building of capacity in neighbouring countries

Risk-based approach to reduction of OTA through application of good practices



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Capacity Building – Good Practices

Sustainably reducing OTA contamination of coffee in producing countries relies on effective programmes of training involving all in the coffee sector

Training and awareness raising activities include:

- Two-week Training of Trainers' (ToT) courses - 'Application of food hygiene and HACCP principles to the coffee chain'
- Sensitization of Stakeholders events
- National follow-up training activities

ToT programme has so far benefited participants from 17 producing countries

ToT courses scheduled in 2004 will involve a further 17 producing countries in Africa, Central America and the Caribbean

Additional Sensitization events scheduled for Central America and the Caribbean in 2004



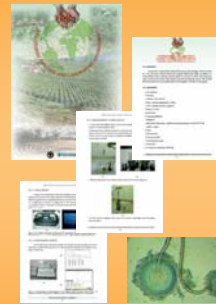
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Capacity Building - Analysis

National capacity building in OTA analysis is necessary to support national programmes for prevention and control of OTA-contamination of coffee

Related training activities include:
Study tours to Nestlé and LACQSA labs
In-country OTA analysis lab training using experts from collaborating centres
Mycotoxin Analysis and Laboratory Management training manual completed
Field mycological training courses

Related investments include:
HPLC / TLC equipment (refurbishment / new equipment) for Colombia, Côte d'Ivoire, Indonesia, Kenya and Uganda
Laboratory infrastructure improved in Colombia, Côte d'Ivoire, India, Indonesia, Kenya and Uganda



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Towards a Code of Practice

Field trials based on examining existing good practice recommendations (ref: PSCB No. 36/02) to refine where specific cautions may need to be exercised

Results are not yet definitive yet - ongoing trials to finalise recommendations include:

- Drying surface comparison** – compacted soil / tarpaulins / cement
- Delayed drying** – assessing risk of OTA production if a delay between harvesting and processing occurs
- Wet processing** – to determine whether the fermentation step may inhibit growth of OTA-producers
- Defects investigations** – to assess whether a correlation between OTA development and certain defect classes exists
- Storage** – stability during storage of parchment coffee and identification of limits of dry storage



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Towards a Code of Practice

Traditional / cultural practices and simple innovations that might be effective in reducing OTA contamination being examined

Trials to establish basis for estimating additional risk of certain practices include:

- Tree drying (*boia*)
- Cherries harvested from the ground
- Spilt cherries

Investigation of performance characteristics of locally designed drying technology (old and new)



Testing Colombian parabolicos



Testing locally designed solar dryer



Tensionable drying rack



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Towards a Code of Practice

Proposed technology recommendations, feasibility and potential take-up by smallholders, being critically assessed in **socio-economic studies**

Tentative recommendations of good practices subjected to **cost/benefit analyses** before final selection

Studies examining potential **impact of EC standards** on market chain structure, producers' income, prices etc

Sustainable application of good practice recommendations will invariably be effected by price situation



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Resource Materials in Development



Project website is currently under development, and is scheduled for completion by mid-2004.

Interactive CD-ROM training resource, focusing on GHP along the coffee chain, to be finalised in 2004, and also available from website.



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Global Project 2004

Detailed workplans and experimental protocols established for each collaborating centre for 2004 to determine final good practice recommendations...

Significant and varied training programme being implemented, and training resources being finalised...

Involvement of all major stakeholders ensures project remains on focus and has high visibility...

Application of prevention strategies still the only available method at farm level to combat OTA...

