

**WORLD COCOA CONFERENCE, ABIDJAN, COTE
D'IVOIRE, 19-23 NOVEMBER, 2012**

**COCOA TRACEABILITY AND
CHOCOLATE QUALITY**

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Outline

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Background and Definition

- Prior to arrival at the factory for processing, cocoa beans pass through a chain of custody by various actors (i.e. farmer, buyer, transporter and the shipper).
- During this period, it is essential the beans are handled with absolute care to preserve total quality and ensure they are safe for human consumption.
- Traceability is an excellent strategy of quality assurance as the procedure tracks the movement of cocoa along the supply chain and leaves a transparent trail of actions taken that can
 - be verified,
 - expose lapses in its handling at any point; and/or
 - allow the consumer to contribute to improve the quality of life in the source community (sustainability).

Traceability: Definition and Objectives

- A parcel of cocoa beans whose origin can be verified by the end user or any other interested party and satisfies internationally acceptable production and handling standards, may be described as traceable cocoa.
- The objective is to assure consumers that production practices and handling mechanisms paid attention to:
 - ethical standards on social issues i.e. no child or slave/forced labour, wars, etc.
 - environmental conservation standards
 - fair pricing for the producer.
 - food safety standards (e.g. use of unapproved chemicals)
- These are essentially the key principles underlying cocoa sustainability.

Traceability in Ghana (conventional cocoa)

- The structure of Ghana's internal marketing system makes it possible to trace every bag of cocoa to a district, month graded with grader details. Premium on Ghana cocoa is partly attributable to the inbuilt traceability in this supply chain.
- This system imposes responsibility on the grader to enforce all quality assurance standards prior to sealing of the bag. And once a bag of cocoa is sealed, it is a criminal offence to de-seal or tamper with it.
- On arrival at the ports, quality parameters stated on the accompanying purity certificate must be consistent with the results of quality tests performed by quality control officials.
- The waybill, manifest and grader identity with date on the seals present evidence of origin and allow traceability.

Traceability in Ghana (conventional cocoa)

- Prior to the loading of cocoa on vessels for shipment, the observed quality parameters are reconfirmed.
- This is Ghana quality assurance standard. It satisfies the cocoa market's requirements and represents our trademark.
- However, the system as described is not the ultimate in traceability. Continuous improvement in our warehousing operations, particularly in managing stock, and additional documentation could make it possible to trace cocoa at the warehouse further down to the origin.
- To achieve this:
 - the industry must reach a point where cocoa labeled at origin is properly documented and ensure that information on the stock is secured at all levels of the supply chain; and
 - where it is desirable, it should be possible to provide information on bean fat content and other characteristics.

Traceability in Ghana (conventional cocoa)

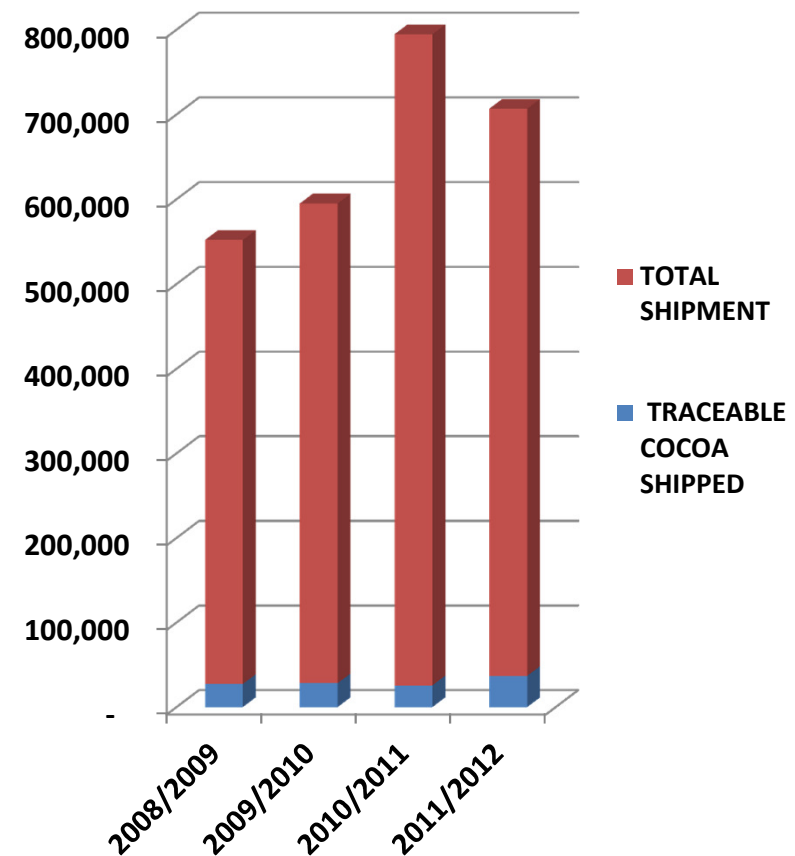
- This transparent process stands to reassure the consumer of the bean quality and promotes efficiency in the utilization of storage space.



Traceability in Ghana cocoa (for the niche market)

- Ghana has initiated a cocoa traceability project for a niche market. It represents an extension of the conventional practice further down to the society and requires additional documentation.
- The project which began in 2008/09 with one licensed buying company is regulated by a MOU signed with COCOBOD.
- The involvement of five other companies in four years, ending 2011/12, has increased the volume of traceable cocoa shipments from 27,213 tonnes to 36,980 tonnes.
- Notably, this volume is a small fraction of Ghana's potential output of 1 million tonnes.

Volume of traceable cocoa in total shipments



Information/Documentation

- Society: Represents the origin. Two sets of information are required on the documentation.
 - Farmer data (name, passbook number, volume and value)
 - essential to track production record and estimate farm inputs requirement for a sustainable production.
 - Build a database on participating farmers.
 - Society drop marks showing details of
 - Company name, Region, district and society identities
 - Waybill (with vehicle particulars and information about the cocoa being evacuated to the district depot)

Information/Documentation

- District:
 - Cocoa is arranged according to society of origin in lots of 30 bags with their detailed identities prior to grading/sealing by quality control officials.
 - The procedure for assessing bean quality is the same for either traceable or conventional cocoa.
 - However, traceable cocoa for a niche market is identified by the additional information captured at origin, documentation style and the handling mechanism.

Information/Documentation

- Take-Over Centre/Port:
 - Cocoa arrivals at the ports are accompanied by the detailed information captured at origin and particulars of the delivery vehicle.
 - During offloading Tally Clerks verify the consistency of information on the manifest by physical counting.
 - Cocoa is offloaded onto stacks and each stack must have a history of all arrivals.
 - This procedure ensures that traceability is not lost along the chain.
 - At the port, a batch being loaded for shipment must have a history showing details of society, arrival date, offloaded date and shipment date.

Effects of Traceability on Chocolate Quality

- Traceability is a quality assurance mechanism. It confirms the physical quality and boost consumer confidence of the beans' intrinsic quality.
 - The supplier is bound by the terms of contract to deliver cocoa of a specific quality for chocolate. This commits the supply to be cautious and meticulous in the discharge of this obligation.
 - The procedure allows both supplier and buyer to audit the system and perform the relevant MRLs tests to confirm the levels of chemical residues (quality specification), and
 - Satisfies the parties that the observed quality is consistent with international food safety standards.
- Traceability is a strategy to promote cocoa sustainability.
 - Cocoa quality has implications for sustainability. Sustainable supply requires that best known practices are observed from the production of cocoa beans through marketing to processing and distribution.
 - Traceability allows consumers to audit sustainability initiatives in the source communities being funded with their premiums.

Challenges

- Key challenges of traceability include:
 - Ability of the supplier to maintain quality record of the process to avoid loss of traceability. Loss of concentration in the recording of information could distort accuracy of information.
 - Field agents preparing to deliver traceable cocoa should be skillful and meticulous in capturing the records and subsequent documentation to avoid loss of vital information.
 - This requires training of the agents with its cost implications.
 - Current practice of warehousing slows progress.
 - Different client requirements of traceable cocoa, for example, buyer preference for cocoa from specific communities, affects warehouse space management. Usually, this type of arrangement is informed by the client's desire to support sustainability initiatives in the source community.

Cost of Traceability

- Cocoa traceability has cost implications for the industry. The main areas which require expenses are:
 - Training of trainers
 - Farmer training
 - Training of suppliers' agents
 - Training materials, logistics and documentation
 - Remuneration
 - Incentives to farmers.
- At current levels of supply, the extra premiums appear quite sufficient to cover project cost

Proposal for creating a fund for traceability

- The reliance on premiums to fund traceable cocoa may not be sustainable. As supply of traceable cocoa outstrips demand, premiums may be lost. This calls for a sustainable source of funding.
- Traceability should be funded from a general Sustainability Fund to be managed by an independent body with clearly defined functions and sources of funding.
- Contributions to the Fund could be a levy on cocoa contracts. The design should capture contributions from profit takers along the value chain and consumers.

Conclusion

- In spite of the challenges identified with running an extensive system, traceability in cocoa is good as it assures consumers of total bean quality.
- Currently, Ghana does not have any significant challenges with quality issues in the marketing of conventional cocoa
- To the extent that premium is paid on Ghana's quality brand is a recognition that consumers desire quality and reinforces the need to maintain quality standards in the cocoa value chain.
- On the global picture, concerns for food safety and the willingness of consumers to contribute towards cocoa sustainability in origin should serve as a sufficient motivation to advance the process.
- It is proposed to this conference to promote further consultations on the subject and arrive at acceptable funding mechanism and implementation action plan.
- For the niche market, ability to trace the origin of cocoa and the desire to contribute towards cocoa sustainability raises the level of consumer satisfaction and a motivation to support sustainability.
- Cocoa sustainability is an important subject in the development of the cocoa economy. Stakeholders would have to work together on a common platform to deliver a sustainable cocoa for today and future generations.



THANK YOU

