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OUTLINE OF A COCOA SUPPLY CHAIN MANAGEMENT PROGRAMME
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INTRODUCTION

1. In 2001, the ICCO Expert Working Group on Quality, under the chairmanship of Mr. Tom Harrison, initiated the first field work in Côte d'Ivoire on a Cocoa Quality Project. The project departed from a concept of good physical quality and from there evolved to an articulated concept of “Total Quality”. In the course of implementation of pilot operations in Côte d'Ivoire, it became increasingly clear that “supply chain management” was the most basic feature of the activities.

2. As the pilot operations in Côte d'Ivoire were successful, it was decided to expand the scope and coverage of the project. To that effect, a draft project profile on “Supply Chain Management for Total Quality Cocoa” was presented to the Expert Working Group on Quality at its 17th meeting of March 2006 (contained in document EWG/Q/17/2). At the same meeting, the Chairman of the Working Group presented a note to the Executive Committee on the “Preparation of a Full Project Proposal”, contained in document EX/128/10/Add.1.

3. Simultaneously, the profile document was presented to the Common Fund for Commodities for informal consultations. The reaction from the Common Fund was very positive, encouraging the ICCO to turn the Project into a Priority Area or Programme. At around the same time, the ICCO secretariat was informed of the plans in the Common Fund to develop a “programmatic approach” for the submission and approval of CFC projects. One of the four priority areas selected by the Common Fund for the programmatic approach in the period from 2008 to 2012 was “Supply Chain Management”. Hence the present outline would seem to fit in well with the new programmatic approach of the Common Fund. It is envisaged to present this document to the Common Fund for an informal review by the secretariat of the Fund.

EXPERIENCE WITH PILOT OPERATIONS IN CÔTE D'IVOIRE

4. In the late nineties, the Association of the Chocolate, Biscuit and Confectionery Industries of the European Union (CAOBISCO) formulated quality criteria for cocoa beans that would allow the manufacturers to produce chocolate of the quality needed to satisfy both prevailing consumer tastes and changing legislation on food hygiene and safety. The quality criteria formed the basis for the implementation of an ICCO “Pilot Project” which started in October 2001 in Côte d'Ivoire. Until the present day, these pilot activities have been made possible by financing and support in kind from the private sector and (semi-) public agencies in Côte d'Ivoire. The activities of the pilot project have been guided by a Task Force of the Expert Working Group on Quality. The Task Force consisted of representatives from (organized) trade and industry and from Côte d'Ivoire.

5. The first activity in the pilot project was a field study on farming practices to identify and better understand the motivations and constraints which farmers faced in producing cocoa of liquor quality. Based on the findings of the field study, a detailed training programme was developed, which included the design and production of instruction sheets and posters. In the meantime, the CAOBISCO quality criteria were broadened, as they evolved into what was coined by the Task Force of the Project as a “total quality” concept. The Task Force concluded that a comprehensive quality concept should also include aspects of food safety, ethical considerations, including the absence of the worst forms of child labour in cocoa production, and environmentally-friendly production methods. The Task Force arrived at this concept by considering that consumers (and governments) increasingly demand foodstuffs,
including cocoa, which have been produced in a socially acceptable way, without undue damage to the
environment and which meet the highest standards of food safety.

6. Once the “total quality” concept had been developed, a basic question became how to control the
supply system to ensure that these total quality criteria were observed. To effectuate this, an essential
requirement became that the cocoa would have to be traceable to its origin, as the only way to ensure
the credibility of the total quality criteria. When collecting cocoa from the selected farmers, the co-
operative participating in the project would keep the cocoa from each of the farmers separate from
other cocoas. At the warehouse of the co-operative, the cocoa would be checked for physical quality
against the high standards of the project. If the quality criteria were met, the cocoa would be put into
export bags, closed and labelled. The cocoa would then be transported to port, once again checked for
quality and then shipped. This system would ensure not only full traceability back to the village level,
but also full integrity of the cocoa between co-operative and shipment, through to the overseas
manufacturer.

7. This system was first tested in 2003/04, starting with the training of selected farmers and staff
from eight co-operatives in quality control and best farming practices for the production of high
quality cocoa. The co-operatives were supplied with quality control equipment, including a moisture
meter, a small scale and sampling spears. At that stage, it was considered highly important to pay a
Project Participation Incentive (P.P.I.) to the participating farmers and to pay the co-operatives for the
extra effort made. The system functioned through groups of participants, each consisting of one
exporter, one to three co-operatives and one to three chocolate manufacturers. The chocolate
manufacturers paid the P.P.I., which, from the beginning, included a payment to a Social Fund for the
benefit of the farming community.

8. The pilot operations in Côte d’Ivoire were repeated in the 2004/05 and 2005/06 cocoa seasons.
They involved somewhat different groups of participants, but the chocolate manufacturers and
exporters remained with the project from the very beginning, while other chocolate manufacturers
joined later. In the course of operations, the Bourse du Café et du Cacao (BCC) in Côte d’Ivoire
assumed an increasingly important institutional role in the project. In 2005/06, BCC took full
responsibility for guidance and monitoring of the project in the field. The incentive payment (the
P.P.I.) proved to be important, particularly in the early stages. However, experience showed that of
equal if not greater importance was the development of mutual trust and a lasting relationship between
the participants in the chain. In particular, the relationship between the co-operative and the exporter
proved of eminent importance. In this connection, it is also noteworthy to observe that, over time, the
P.P.I. was reduced, but an increasing share of the incentive payments went to the Social Fund.

9. The process of preparation and implementation of the pilot operations were driven throughout by
the activities of the private sector. The field work, training (including development of training
material), formulation of activities and operation of the pilot scheme has been (financially) supported
by the cocoa trade and industry associations (the BCCCA, CAOBISCO, the FCC, the BDSI and the
ICA), while the operations were supported and implemented by a number of private sector companies
(Cadbury, Ferrero, Kraft, Masterfoods, Nestlé and Armajaro, Ecom-Zamacom and Noble Cocoa)
together with a number of local co-operatives. Training, as well as logistical, institutional and
managerial support was provided by a number of institutes in Côte d’Ivoire, including the Ministry of
Agriculture, ANADER and the BCC.
10. The major lesson from the pilot operations is that the developed system does work, albeit with some deficiencies, which have to be improved upon. The farmers are, under proper conditions, willing and capable of producing cocoa which meets high physical quality standards. The system also provides full traceability. This makes it impossible to tamper with the integrity of the cocoa between the co-operative warehouse and the port, thereby eliminating the practice of blending bad cocoa with good cocoa. Through this full traceability, the system allows for the meaningful introduction of quality aspects which go beyond the physical characteristics of the cocoa.

11. The system also resulted – although this was not a prime objective at the start – in a more efficient and effective supply chain. The resulting savings amounted, according to preliminary estimates, to at least US$ 30 per tonne. All agents between farmer and exporter are eliminated, which increases the part of the value added going to the farmers. The farmers are therefore paid for performing the trade function from the farm gate to the port of export. The farmers are further paid for putting the cocoa in export bags and also for the savings resulting from not having to condition the cocoa at the port warehouse. In this way, the system has become an effective cocoa supply chain management tool, with the potential of maximizing the share of the farmers in the export proceeds.

RATIONAL FOR A PROGRAMME ON SUPPLY CHAIN MANAGEMENT

12. The pilot operations in Côte d’Ivoire have been successful. However, the full potential of the system, in terms of realizing the quality aspects which go beyond the physical characteristics of cocoa, remains to be achieved. Through the further development of the system, traceable cocoa could be produced and marketed, which meets all the criteria of sustainable cocoa, including economic, social and environmental aspects.

13. The other limitation of the pilot operations so far is that they have been limited to Côte d’Ivoire. If the system can potentially bring substantial benefits to farmers in Côte d’Ivoire, it is likely that this could, perhaps with certain modifications, also be the case for other cocoa producing countries.

14. Another rationale for a programme is that achievement of a truly efficient supply chain would require additional or supportive studies and analyses on both the supply and demand sides of the market. The work on the market chain could be based on a more solid foundation if more information could be acquired on potential cocoa supply on the one hand and on the directions of demand development on the other.

15. Full development of the system, with production and marketing of “sustainable cocoa” by cooperatives, is an activity of a different character, as compared to introducing the trading system of traceable, high physical quality cocoa in a country. The third type of activities, consisting of analytical work, again has a different character. For this reason, a programme is needed to keep these different activities under one umbrella.

THE CONCEPT OF A PROGRAMME ON SUPPLY CHAIN MANAGEMENT

16. The programme on Cocoa Supply Chain Management has to take a holistic approach, made up of related elements and simultaneously, has to be pragmatic. None of the elements (or: activities) of the programme should ever be considered in isolation. Each element should be considered as a part of the chain, including the impact of changes on other elements in the chain and the implications on the economics for the relevant stakeholders in the chain. The main drivers of the programme are:
• Mutual economic benefits for all participants in the chain;
• A clear understanding of the role of each segment of the chain and how they inter-relate with each other;
• Clear, communicable “total quality” standards, linked to economic benefits on achievement;
• The use of simple, clear “best known practices” in problem solving and the avoidance of “high-tech” solutions in “low-tech” situations;
• A considerably expanded role of farmers’ co-operatives (farmers’ associations or farmers’ groups); and
• The involvement and commitment of the commercial partners in the cocoa chain.

17. The most basic characteristic of the programme will be that all activities initiated by the programme will have to be adopted by the private sector. The whole programme must, in other words, be driven by the commercial, economic and social interests of the partners in the chain. Only attempts to introduce changes which, possibly after “gestation periods”, are attractive, economic or otherwise, for the participants in the chain, will be adopted.

18. The other basic characteristic is that the developed system of traceability and improvement of the efficiency of the supply chain can only function through organizations of farmers (through co-operatives, farmers’ associations or groups of farmers). Traceability as such could also work through local traders, provided a reliable system could be developed. However, in that case, the opportunity of directly increasing the share of the farmer in the value created in the chain is lost. Arrangements could perhaps be made with local traders to pass on to the farmers at least part of the advantage of the traceability system. The most certain way to maximize the advantage for the farmers and their communities would, however, be to work through organizations or groups of farmers.

19. In the final analysis, to be successful, the programme will have to be designed and implemented in such a way that it will deliver cocoas which will meet future demand requirements in a sustainable way. In so doing, it will only succeed if it provides fair and mutual economic benefits to all the participants in the chain; operates in an efficient and competitive manner and makes a positive contribution to addressing environmental issues, whilst providing for social development in the poorer segments of the cocoa chain.

COMPONENTS OF A COCOA SUPPLY CHAIN MANAGEMENT PROGRAMME

20. The Supply Chain Management Programme is envisaged to comprise a number of projects plus a number of related studies and analyses. The projects would seem to be suitable for financing by the Common Fund, with possible co-financing by other institutes. The studies and analyses could, with co-operation from the relevant actors in both producing and consuming countries, mainly be conducted by the ICCO secretariat. Certain studies or parts of some studies could possibly be financed by the Common Fund and/or other donors, in particular when field work is included.

Projects

21. The first cluster of projects to be implemented would consist of determining the baseline situation in cocoa producing countries (other than Côte d’Ivoire) and the introduction on a pilot scale of an (adapted) system of chain management and traceability. Two stages of activities could be considered:
• **Stage 1.** Determination of the current system and changes required. The studies related to individual countries would comprise: baseline studies of the operations and logistics of the cocoa supply chain in producing counties; field studies of current farming practices in producing countries, including determination of quality achieved and yields per hectare; and, from the foregoing, to determine how to achieve traceability and to improve the functioning of the supply chain, and in the process better meeting market requirements.

• **Stage 2. Pilot operations,** consisting of: identification of trade partners to form “commercial groups”; preparation of appropriate training procedures and the development of programmes with the involvement of the relevant government authorities; implementation of new procedures on a pilot scale; assessment of benefits achieved by various participants through measurement of economics and other efficiency parameters; reiteration of trials to achieve sustainable procedures and to firmly establish the economics of the system; and institutionalization of the system in each of the countries concerned.

22. The activities referred to under Stage 2 above could be implemented as separate projects in different regions: one project in Africa; one in Latin America and one in Asia, or one in Latin America and Asia combined. In each region, stage one and stage two activities could be included in one project proposal, starting with the financing and implementation of Stage 1, before embarking on Stage 2, after having incorporated the findings of Stage 1 in the final proposals for Stage 2.

23. The second cluster of projects would consist of activities to achieve the production and marketing of “sustainable cocoa” by farmers and farmers’ organizations/co-operatives. The cocoa delivered would need to meet criteria of economic, social and environmental sustainability and be traded in an efficient supply chain. A project of this nature could first be implemented in Côte d’Ivoire, as the pilot trade operations have successfully been implemented in that country. Subsequently, projects of this nature could be implemented in other cocoa producing countries, after the pilot trade operations have also been completed in these countries (the second stage of the first cluster of projects, mentioned above).

24. The envisaged components for a project in this cluster include:

- Identification of farmers’ groups which, through the project, can be transformed into “model co-operatives” by applying “best known” practices in production, handling and trade in cocoa;
- Collecting and evaluating “best known” practices from previous and current results obtained by other activities and practitioners in these areas;
- Determination and introduction with farmers of “best known” practices in various agronomic and logistical activities, including genotype selection and introduction of planting material; optimal tree density; pest and disease control; shade management and pruning; soil fertility and improvement; inter-cropping; harvesting and post-harvest techniques; and measurement of yields;
- Economic assessment of the impact of the introduction of “best practices”, with forecasts of the implications of extension of these practices; and
- Production of a field guide, suitable for use by farmers and co-operatives, on best known practices for sustainable cocoa production and trade.
25. The **third cluster** of activities would, as indicated above, consist of support studies, surveys and analyses, mainly related to demand and supply of cocoa. On the demand side, it would seem important to determine current and projected demand for cocoa in both quantitative and qualitative terms. Two obvious areas of study are: analysis of current and future demand for cocoa beans by type of beans and product use; and studies to estimate future market needs, by analyses of trends in consumption of cocoa-based products, including organic cocoa, fine/flavour cocoa etc. It is noted that only limited data exist on current demand, specified by these categories. Information would have to be obtained by surveys of buyers and manufacturers, indicating present uses and their future requirements. The cooperation of buyers and manufacturers would be essential to obtain the information required.

26. The indicated information on demand would have to be complemented by information on current crop resources, including: global tree stocks; average (trends in) yields per hectare; trends in new plantings; estimates of availability of land for cocoa; and analyses of supplies of cocoa beans, by type, quality grade and product use, as a complement to similar information on the demand side. It is underlined that this information would appear essential for economic and social planning in any major cocoa producing country.

27. Most of the work in this third cluster can be done by the ICCO secretariat, provided there is full support from the Member countries and from the private sector in both producing and consuming countries. In a number of cases, the secretariat will need support in cash or in kind together with assistance from specialized experts in trade and industry.

**FINAL REMARKS**

28. It will be essential, in undertaking a programme of this nature, to recognize its long-term nature and to obtain the commitment required from the key participants in the cocoa chain. Without the operational and financial involvement of both producers and consumers, little will be achieved. Successful implementation of the programme also requires the co-operation and support from the private sector, researchers and field workers.

29. It is evident that changes in the cocoa supply chain are necessary. These can only be achieved by changes in the behaviour of the key participants in the chain. The Executive Committee may wish to consider how best to engage the key private and public bodies involved to obtain their support.