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# Diversification in coffee exporting countries

## Background

1. The economic performance and development prospects of many developing countries are largely dependent on commodity exports. The heavy dependence of these developing countries on a few commodities exposes them to adverse economic impacts, sometimes with harmful consequences for growth and the reduction of poverty. Coffee, which is one of the commodities that provides the main part of the export earnings of developing countries, has been experiencing a significant market imbalance for more than two years, resulting in a sharp fall in prices. This situation has led to a serious deterioration in the living conditions of a large number of coffee growers who depend on coffee for most of their income. Diversification provides an opportunity to bring about changes compatible with existing comparative advantages.

2. The purpose of this report is to help Members to explore the possibility of carrying out diversification programmes within the framework of the fight against poverty in coffee producing areas.

## Action

The Executive Board is required to take note of this report.

## INTRODUCTION

1. The aim of this report is to initiate discussion on the concept and strategy of diversification. It will explore opportunities and conditions for carrying out diversification programmes within the framework of the fight against poverty in coffee exporting countries. Programmes of this nature were carried out by the International Coffee Organization in the late 1960s and early 1970s. As a preliminary document for discussion by Members, this report will confine itself to presenting the concept and rationale of diversification, indicating how the International Coffee Organization dealt with this issue in the past. The following points will be covered:

I. Concept and objectives of a diversification strategy
II. The crisis in the coffee economy and the need for diversification
III. Diversification experience within the framework of the ICO
IV. Prospects

## I. CONCEPT AND OBJECTIVES OF A DIVERSIFICATION STRATEGY

### A. Modern portfolio selection theory

2. The concept of diversification gained importance with the modern theory of portfolio management developed by the Nobel Prize winner Professor Harry Markowitz. According to this theory, all investments carry risks which can be divided into two categories: the specific risk associated with each investment, and the systematic risk associated with market movements. In making up an investment portfolio, investors choose a range of investments in different proportions. One of the principles of portfolio selection is based on the common sense adage: *"Don't put all your eggs in the same basket"*. Markowitz demonstrated the truth of this proverb in mathematical terms, establishing that the total risk of an investment set is lower than the sum of the risks entailed in the individual investments. According to this modern portfolio theory, investing in a set of investments (diversifying investments) makes it possible to limit risk without loss of returns. This theory is based on the fact that above a given number of investments the specific risk of each investment affect each other and end up disappearing altogether. The only remaining risk for this type of portfolio, i.e. a properly diversified portfolio, is the combined systematic risks associated with the various investments.

3. Portfolio selection theory explores possibilities for risk-averse investors to select financial portfolios that optimise market risks against anticipated returns. The theory has been used to quantify diversification benefits. Diversification is a means of reducing portfolio risks without reducing total income.

4. Inspired by modern portfolio selection theory, diversification strategy has been successfully applied in the field of agricultural and mining commodities. Diversification has come to be regarded as a means of reducing a country's dependence on a particular product or a very restricted range of primary products generally exported before processing. Many developing countries find themselves in this situation, particularly those with low economic growth rates and still heavily dependent on commodities for trade, income and employment. A large number of producing countries fall into this category, some with coffee as their main source of export earnings.

**B. Dependence of coffee exporting countries**

5. The degree of flexibility in producing a primary product in a producing country is determined by a number of economic, social and political constraints which can be grouped under a number of headings relating to the domestic economy and costs. The importance of the product in the national economy can be gauged in terms of the gross domestic product (GDP), income, external trade, foreign indebtedness and the State budget. The cumulative impact of the direct and indirect effects of exploiting a product can be crucial for the country's economic, social and political situation. The dominant role of a particular product in a country's exports is a factor responsible for creating serious rigidity in production, both in terms of the development of production capacity and at the level of production techniques. In general, the lower the country's per capita income and development level, the more serious will be the constraint on export earnings. In a number of coffee exporting countries, the concentration of export index is very high in relation to coffee.

6. The exceptional economic importance of coffee for producing countries is widely recognised. Coffee accounts for more than half of the export earnings of certain producing countries. Moreover, to the extent that coffee is a source of income for coffee farmers lacking other resources, it is an engine of social and economic development. As such, it plays an important role and can help to alleviate poverty.

7. Export dependency is a classic indicator of dependence on commodities. The dependency coefficient is measured in terms of a product's importance in the structure of exports or its contribution to GDP. The table attached as an annex shows the percentage share of the value of exports (f.o.b.) of green coffee in the total value of commodity exports and GDP.

8. Unlike many developing countries in Asia and, to a lesser extent, in Latin America, African countries have not managed to diversify their exports over the last three decades and their economy continue to be extremely dependent on commodities. Burundi, Rwanda, Uganda and Ethiopia have a high level of dependence on exports of green coffee. In these countries coffee continues to account for a large share of GDP. Dependence on coffee exports exposes exporting countries in Africa to economic crisis and also increases instability in their export earnings.

## II. THE CRISIS IN THE COFFEE ECONOMY AND THE NEED FOR DIVERSIFICATION

9. When the International Coffee Agreement 2001 entered into force on 1 October 2001, the world coffee economy was suffering from a serious imbalance between supply and demand, entailing record falls in prices which were at their lowest in more than 30 years. This situation recalled the background against which the 1968 Agreement came into effect, when the coffee market was characterised by excess supply. As a consequence prices were very low and Members decided to alleviate the difficulties of exporting countries by establishing a Diversification Fund.

10. In October 2001, the average ICO composite indicator price was 42.21 US cents/lb compared with 56.40 US cents/lb in October 2000 and 76.36 US cents/lb in 1999. This average was 95.01 US cents/lb in 1998 and 121.09 US cents/lb in October 1997. As a consequence of the slump in world coffee prices, a number of exporting countries are experiencing one of the most serious economic crisis since the 1960s. In exporting Member countries export earnings from all forms of coffee fell to US$5.8 billion in coffee year 2000/01 compared with US$8.6 billion in 1999/2000 and US$9.7 billion in 1998/99. Average export earnings in 1997/98 were around US$12 billion. Africa, which has the largest number of countries dependent on exports of primary products in general and coffee in particular, record coffee export earnings of only US$763 million in 2000/01 compared with US$1.2 billion in 1999/2000 and US$1.4 billion in 1998/99. Export earnings from coffee were US$1.8 billion in 1997/98 and US$1.9 billion in 1996/97.

11. Despite widely varying degrees of dependency, almost all coffee producing countries have experienced serious economic difficulties as a result of the fall in coffee prices. In many cases coffee producing costs have far exceeded earnings. This situation, which has lasted for three years and has contributed to the impoverishment of rural areas, has had a number of consequences. The abandonment or neglect of coffee farms affects coffee quality and encourages rural exodus. In addition, the coffee crisis creates social problems and political instability in a number of exporting countries.

12. In addition to measures designed to improve the situation, in particular the Coffee Quality-Improvement Programme adopted by the International Coffee Council in February

2002, other strategies may be complementary. Among these measures, a diversification programme would help to alleviate the sufferings of coffee farmers and reinforce the fight against poverty in coffee producing areas. A strategy of this nature would have two main objectives: diversification considered, on the one hand, as a means of ensuring additional income for coffee farmers by adopting other crops capable of providing them with substantial income and, on the other hand, as a means of increasing the added value obtained from coffee.

## III. DIVERSIFICATION EXPERIENCE WITHIN THE FRAMEWORK OF THE ICO

13. The purpose of the Diversification Fund established under the International Coffee Agreement 1968 was to encourage mainly horizontal diversification in coffee exporting countries in order to alleviate the serious hardship caused by the marked imbalance between supply and demand consequent upon the existence of excess supplies in relation to requirements. Under the provisions of the 1968 Agreement, Members undertook to adjust their coffee production to the amount needed for domestic consumption, exports and stocks. The experience gained during the early years of the first Agreement led Members to the conclusion that more binding provisions concerning production were necessary if any progress were to be made in achieving the objectives of Article 48 on production aims. It would be desirable to find means of encouraging other forms of agricultural or agriculturally-based activity as an alternative to coffee production. A fund was created to channel part of the earnings from coffee exports into the strengthening and diversification of the agricultural sectors of the economies of Member countries[1].

14. The main purpose of the Fund was to limit coffee production in order to bring supply into reasonable balance with world demand and to maintain such balance. The Fund was established to divert resources from the cultivation of coffee to activities such as the cultivation of other crops which would not only enhance the country’s economic position but would also enable coffee growers to increase their income. It was necessary, therefore, to establish measures to encourage producing countries to adopt coffee policies to rationalize production and marketing methods in order to safeguard the world coffee industry.

15. Contributions to the Diversification Fund were compulsory for the 30 exporting Members with export entitlements of over 100,000 bags. These Members, referred to as Participants, were required to contribute to the Fund in quarterly instalments an amount equivalent to US$0.60 for each bag of coffee in excess of 100,000 bags exported to quota markets. Contributions of compulsory Participants were divided into three parts. Portion A, corresponding to 78 percent of the total contribution payable either in US dollars or in the currency of the Participant, was to be held solely for financing projects to be carried out

[1] *Report on the Diversification Fund of the International Coffee Organization, document EB-1704/79.*

within the territory of the contributing Participant. Portion B, corresponding to 2 percent of the total contribution to be paid in US dollars, was to be used to cover general expenditure and the administrative expenses of the Fund. Portion C, corresponding to 20 percent of the total contribution and payable in US dollars, was to be used to finance projects to be carried out within the territory of any contributing Participant which was an exporter. Total contributions paid amounted to US$111.4 million of which US$92.6 million were committed for 36 diversification projects. These projects were financed in the form of loans. Provision was also made for voluntary participation by importing Members. Four importing Members made significant contributions to the Diversification Fund, namely the USA (US$15 million), the Federal Republic of Germany (US$3 million), the Netherlands (US$875,000) and Norway (US$600,000).

16. The Fund cooperated closely with other international lending institutions, in particular the World Bank, the Inter-American Development Bank, the United Nations Development Programme and the Food and Agriculture Organization of the United Nations. The international institutions sent members of their staff to assist in the organization of the Fund and provided support to facilitate its operations and to assist in the appraisal of projects presented for financing by the Fund. The projects selected fell into the following categories:

***(a) Projects for the development of alternative agricultural activities:***

- i) Projects for the development of specific crops including tea (Burundi, Ethiopia, Rwanda and Tanzania); bananas (Cameroon); cocoa (Colombia and Uganda); oil palm (Madagascar); fruit (Togo); horticulture (Kenya); cassava (Nicaragua); rice (Côte d'Ivoire); and cloves (Indonesia).
- ii) Projects for the development of activities related to livestock: dairying (Kenya) and meat production (Kenya and Mexico).
- iii) Projects for the provision of credit for diversification into a number of different crops (Colombia, Guatemala, India and Costa Rica).

***(b)*** ***Projects forming part of an overall programme for the strengthening of the agricultural economy*** and contributing directly to diversification of crops in coffee producing areas. Four such projects were financed in Brazil linked to the "Export Corridor Programme".

***(c)*** ***Projects for agricultural development and diversification*** in specific regions (Dominican Republic and Ecuador).

***(d)*** ***Projects for the improvement of statistical information on coffee sectors.*** Such projects were financed in Ethiopia, Indonesia, India, Uganda and Zaire (now the Democratic Republic of the Congo).

*(e)* ***Projects for the storage of coffee.*** Such projects were financed in Angola, Costa Rica, the former Central African Empire, Tanzania and Zaire.

**Scope and limits of the Diversification Fund**

17. For some Participants the availability of finance from the Fund made it possible to improve and expand economic development programmes which were already in existence. Other Participants were able to use resources from the Fund to finance part of the projects and development programmes for which finance was not available from banking or business sources or from other financial institutions. In some cases the fact that the resources of the Fund were available for this type of financing induced banks or consortiums of business firms to provide supplier credit to finance part of the project.

18. The diversification programme stimulated Governments to examine closely the manner in which they were implementing their coffee production and marketing policies. The programme also enables Participants to consider the possibility of developing production of crops which would otherwise be imported. In this way the resources of the Fund were used to assist Participants to reduce the amount of foreign exchange spent on imports. It should be noted, however, that the Fund was reluctant to finance projects for the development of a crop which was in surplus supply on world markets unless it could be shown that it would be destined solely for domestic consumption.

19. Despite the reluctance of the Fund to finance projects which could create a surplus on the market for other diversification crops, the programme contributed to the appearance of a number of dysfunctional features in some agricultural markets.

20. Vertical diversification, in particular the encouragement of local processing designed to increase the added value of the product, was not covered by the Fund. Certain countries managed to carry out vertical diversification programmes outside the activities of the Fund, enabling them to expand the bases of their economies. The example of Brazil illustrates the success of the strategy despite the tariff barriers encountered in importing countries.

## IV. PROSPECTS

21. Commodities continue to be an important source of foreign exchange earnings for developing countries and can provide significant added value. On the whole, agricultural products create a large number of jobs and can contribute to the fight against poverty. The coffee crisis in exporting countries has reached proportions which are worrying for the survival of those involved in the coffee chain and for the economies of those countries. The slump in coffee prices, which has now lasted for three years, is one of the

major concerns of economies heavily dependent on coffee. In the absence of appropriate measures, it is unlikely that the conditions for coffee growers will show any durable improvement.

22. From the experience gained under the International Coffee Agreement 1968, it is evident that the diversification programme played an important role in the economic development of many coffee exporting countries by expanding and improving the agricultural sector in countries heavily dependent on coffee. Against the current background of marked volatility in coffee prices and a serious imbalance between supply and consumption requirements, a new diversification programme should take into account not only a strategy of vertical diversification backed by a programme to promote an increase in domestic consumption but also the concept of assuring food supplies (food security) as a factor for reducing poverty.

23. It would be desirable for vertical diversification to be reinforced by the promotion of domestic consumption. Brazil provides the best example of a coffee exporting country which has succeeded in diversifying its economy. The value of green coffee exports accounts for less than 5 percent of total export earnings from primary products and less than 4 percent of GDP. However, this vertical diversification policy has encountered obstacles, particularly in the unequal tariff treatment applied on early into the markets of a number of importing countries.

24. In terms of coffee consumption, Brazil is the world's second largest consumer after the USA. Brazil's experience in the promotion of domestic consumption merits sharing with other exporting countries.

25. Horizontal diversification should be envisaged not only as a means of replacing coffee growing by new cash crops. Programmes of this nature could lead to social upheavals in coffee growing communities established for many decades. Instead there should be support programmes to enable coffee farmers to grow food crops on part of their plots set aside for coffee in order to assure food security for their families and a marketable surplus to supplement income from coffee. This strategy incorporates the concept of food security. The success of diversification programmes is dependent not only on the existence of a viable market for the alternative products concerned but also on the cooperation of developed countries. The products of diversification require, on the one hand, guaranteed access to markets in developed countries and, on the other, the reduction or elimination of tariff and non-tariff obstacles, in particular agricultural subsidies likely to reduce the competitiveness of products from developing countries.

**CONCLUSION**

26. Over the last decade, the organization of world markets for commodities has been undergoing a profound change characterized by the almost total disappearance of mechanisms for direct intervention in supply and demand. It goes without saying that in these circumstances unfavourable developments in prices and trading conditions for commodities will have a considerable impact on a number of exporting countries. The situation of coffee is even more disastrous when we consider that the ICO composite indicator price has fallen by 46 percent from an annual average of 108.95 US cents/lb in 1998 to 45.60 US cents/lb in 2001. Prospects for correcting this situation seem somewhat gloomy while a sizeable percentage of the population dependent on coffee continues to live in poverty and the survival of the coffee economy in a number of countries is under threat. These countries are faced with the urgent need to strengthen their capacity to adapt to a changing and unstable economic environment. Diversification is one of the ways to cushion the impact of the coffee crisis on the economies of developing coffee-exporting countries and their rural population.

27. A majority of the population in rural areas is directly or indirectly dependent on the commodity sector for its livelihood. It is estimated that, worldwide, one billion people in developing countries earn a sizeable proportion of their incomes from the export of commodities and a large number of them live in the poorest countries. The viability of the commodity sector is, therefore, inextricably linked to prospects for growth, job creation and reduction in world poverty. If the development objectives of reducing world poverty by half by 2015 are to be achieved, commodities must be placed at the centre of efforts to promote economic growth and fight poverty. Analysis of key factors which would encourage or limit diversification possibilities could be the basis of a further report that would take into account possible options in individual countries.

28. Consideration should be given to conditions for carrying out diversification programmes in certain coffee exporting countries. The possibility of adapting the experience of the Diversification Fund with a view to reducing the vulnerability of these countries to external impacts should also be considered. Admittedly, significant changes have taken place in the world coffee industry since the 1960s but the International Coffee Agreement 2001 is entering into force against the same background of a market imbalance and even lower prices than in 1968. Without the Diversification Fund established under the 1968 Agreement, which came into effect at a time when there were large surpluses of coffee worldwide, some coffee exporting countries would not have prepared plans which enabled them to organize and manage their coffee production and undertake projects of vital importance for their economies. The establishment of a similar fund or support programme could encompass efforts to undertake specific projects designed to increase the incomes of coffee growers by other means. Such projects would require contributions from international finance and development institutions. The International Coffee Organization could request these

international institutions and bilateral aid agencies to assist in establishing a memorandum of understanding which would provide a basis for channelling reflections and initiatives. It is the role of the International Coffee Organization, which has the requisite contacts, expertise and experience, to ensure that the cooperation of exporting and importing Members through national and international financial and development institutions is developed under the best possible conditions so as to contribute to the reduction of poverty in coffee producing areas.