



International Coffee Organization  
Organización Internacional del Café  
Organização Internacional do Café  
Organisation Internationale du Café

NÉSTOR OSORIO, EXECUTIVE DIRECTOR

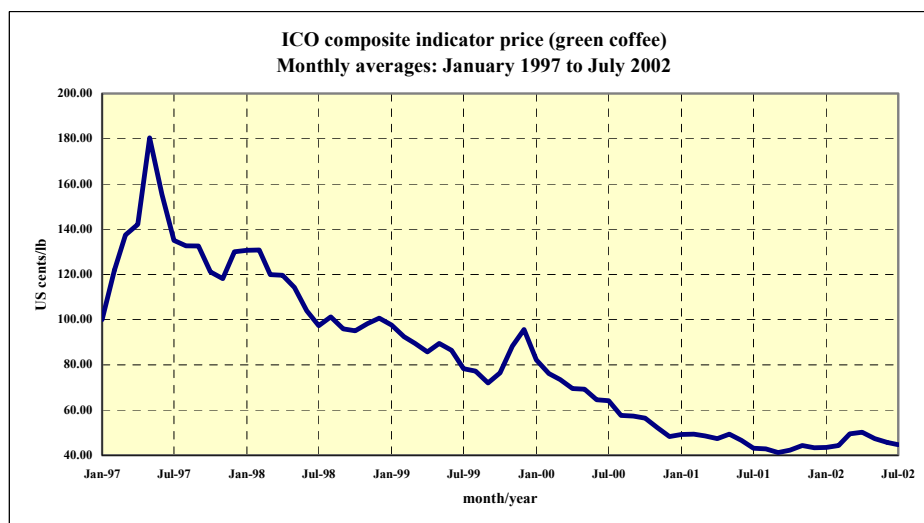
## TECHNOLOGICAL DEVELOPMENT IN COFFEE: CONSTRAINTS ENCOUNTERED BY PRODUCING COUNTRIES

*Presentation to the World Food and Farming Congress, London, 26 November 2002*

### The coffee crisis

1. I should like to start by saying a few words about the current economic conditions affecting coffee producers. The key reality we face at present is that, although the coffee business is booming in consuming developed countries, current rock bottom prices are causing immense hardship to countries where coffee is a key economic activity, as well as to the farmers who produce it.

2. In the early 1990s earnings by coffee producing countries (exports f.o.b.) were some US\$10-12 billion and the value of retail sales of coffee, largely in industrialised countries, about US\$30 billion. Now the value of retail sales exceeds US\$70 billion but coffee producing countries only receive US\$5.5 billion. Prices on world markets, which averaged around 120 US cents/lb in the 1980s, are now around 55 cents, but this year reached their lowest point in real terms for 100 years. The fall in prices over the last five years has been dramatic and is illustrated in the graph below. The drop in earnings is particularly severe for those countries such as Uganda where coffee provides a large portion (over half in this case) of export revenues.



3. This situation is caused by the current imbalance between supply and demand for coffee. Total production in the crop year beginning in 2002 is estimated at around 119 million bags (60-kg bags), up 9 % on crop year 2001/02 while world consumption, estimated at end September 2002 is 108.3 million bags. On top of that, world stocks amount to some 44 million bags. Coffee production has been rising at an average annual rate of 3.6%, but demand has been increasing by only 1.5%. At the origin of this coffee glut lie the rapid expansion of production in Vietnam and new plantations in Brazil, which is harvesting a record crop in the current season.

4. It is estimated that over 125 million people worldwide are dependent on coffee for their livelihoods. But since it is a perennial crop it is not easy to switch to an alternative when prices are at today's levels. The consequences of the current situation vary but in many cases prices do not even cover the costs of production. The consequences can be summed up in three categories:

- (a) Where costs of production are low, technologies are well developed and exchange rate movements have favoured exports, coffee farmers can still make a living. This is the case in much of Brazil. Even here low returns have had an adverse effect on rural economies in terms of reduced farmer spending and rising unemployment.
- (b) Where coffee represents a cash crop element in a subsistence farm, substantially less money is available for expenditure on medicine, communications and education. This is the case in many African and some Asian countries.
- (c) Where farmers depend largely on coffee for income, including food purchase and where indebtedness has been incurred, farmers are either more heavily in debt or have been forced to abandon their farms or switch to alternative crops. Options for the latter may be reduced and may include proscribed drugs like coca. In Vietnam, there are reports of farmers selling their possessions to satisfy debt collectors. In Guatemala, for the 2001/02 crop, the harvest labour force has been reduced from 500,000 to 250,000. In Colombia, coca plantations can now be found in coffee areas. Coffee farmers from Mexico have died trying to enter the USA illegally after abandoning their farms, and indebted coffee growers have been committing suicide in India. In general the situation stimulates emigration to cities and to industrialised countries.

### **Consequences for consumers**

5. Although consumers could be expected to benefit from low prices this is not the case in coffee. Firstly, the amount accruing to the farmer from the retail sales price of a cup of coffee in a coffee shop is probably less than 2%. Secondly, excessively low prices lead to lower quality. An example is the farmer who normally pays harvesters to go through the coffee trees three times during a harvesting season to pick the ripe cherries and now sends them through once only, picking unripe and overripe beans with the ripe ones. Another is the fact that the highly appreciated mild Arabica coffees are usually produced at a higher cost than natural Arabicas or Robustas so the percentage of the former is decreasing in blends as farmers find it increasingly hard to stay in business.

### **The role of technology**

6. There is no doubt that technological advances can play an important role in lowering production costs as well as contributing in other areas such as quality improvement and plant

protection. Nevertheless technological advances require investment, both in maintaining an adequate research and extension infrastructure and in terms of capital expenditure and appropriate use of improved inputs. Both these areas are jeopardised under present price conditions.

7. The economic weakness of the coffee sector in producing countries today has had a serious effect on research and extension. Budgetary cuts, sometimes of a nature to seriously affect research capacity have been imposed on some of the producing countries' key research institutions such as the Coffee Research Foundation in Kenya and Cenicafe in Colombia. The value of such institutions is not only their location in coffee-growing areas but their potential to reflect producing-country priorities. Economic constraints facing such institutions are felt in many ways. An example is the concept of a global research network promoted by the International Coffee Organization (ICO) to allow institutions in producing countries to share research results, with a view to avoiding duplication and accelerating the pace of work undertaken. This has proved difficult to initiate operationally, probably as a result of resource cuts.

8. Current structures of marketing and world trade are largely determined by developed countries, and can have knock-on effects in other areas such as research. In several cases the push for liberalisation of marketing has led to weakening of research and extension, with Kenya a case in point.

9. Conditions also favour development of new scientific advances in the North so it is increasingly likely that research agendas will be mainly determined there. Indigenous research institutions often operate in relative isolation and are less able to compete for funding with North-based bodies.

10. Coffee-research priorities may also differ according to the perspective of the funder. For example CABI (based in the UK) identifies research developments in the areas of high yielding and resistant varieties, mechanisation, integrated pest management (IPM) and post-harvest treatment. CIRAD (based in France) looks at genetic improvement, plant protection, and quality. In producing countries many of these aims are shared but greater relative emphasis is likely to be placed on value-added, cost-cutting and quality relative to yields and plant resistance.

11. Inevitably the question of GMOs will be a factor in the future. In the coffee area the key issues for producers will be how these might affect marketability and production costs. European consumers remain substantially opposed to genetically modified foodstuffs and the costs of buying genetically modified seeds could pose a serious problem, particularly to small farmers, which could have adverse socio-economic consequences. Having said that, the main areas of potential for genetically modified coffee currently lie in areas such as pest and disease resistance and reduced caffeine content.

### **The way forward**

12. The process of technological development and its transfer to farmers in developing countries must be seen as an aspect of sustainable development. One of the key aims of the ICO is to work for the development of a sustainable coffee economy and I believe this is a *sine qua non* to enable progress to be made in technology transfer. I shall therefore conclude by mentioning some of the actions being pursued by the ICO to restore a healthier balance to the coffee sector.

13. The ICO is an intergovernmental organization established by the United Nations in 1962, including both producing and consuming Member countries, but with representation

from the private sector through its Private Sector Consultative Board. It exists specifically to address world coffee problems and issues in view of coffee's exceptional economic importance and developmental implications.

14. Within the framework of the International Coffee Agreement 2001, which entered into force on 1 October 2001, the ICO has identified a number of ways both on the supply and the demand sides in which the coffee crisis can be addressed through international cooperation to create a healthier balance between supply and demand without regulating the market itself.

- On the supply side these are:

#### *Quality improvement*

15. In February 2002 the ICO introduced a new global Coffee Quality-Improvement Programme (CQP) which took effect on 1 October 2002. This sets minimum grading standards and maximum moisture content for coffee exports<sup>1</sup>. The consumer will benefit from higher overall quality standards in coffee blends and the producers from the reduction in the current surplus through elimination from the market of sub-standard coffee. Both Governments and the coffee trade can play their part in supporting and implementing this Programme, which must be in their own long-term interest.

#### *Diversification*

16. Where possible promoting action to diversify farmers' over-dependency on coffee through encouraging additional or alternative activities and greater coffee product segmentation. Such a programme needs support from Governments and other donors, but the first new projects in this area have already been defined.

#### *Production monitoring*

17. The ICO will act as a centre for information on Member country production programmes so that such programmes would be discouraged if likely to lead to imbalances. In addition, the ICO will ensure that multilateral and bilateral donor institutions are informed of the coffee balance in order to avoid inappropriate projects.

#### *Sustainability*

18. The identification and dissemination of optimal systems for sustainable cultivation and processing systems.

- On the demand side they are:

#### *Promotion*

19. The ICO will seek to build on highly effective promotion activities in new markets, such as China and Russia, to promote consumption of coffee particularly in partnership with the private sector and in producing countries themselves as well as new and existing markets.

---

<sup>1</sup> See the ICO Website [www.ico.org](http://www.ico.org) for full details.

### *Barriers to trade*

20. Within the framework of WTO negotiations to seek the elimination of tariff and other barriers to all forms of coffee, together with those affecting all agricultural products originating in developing countries, in order to reduce remaining barriers for coffee and to improve market access for alternatives.

### **Conclusion**

21. The International Coffee Agreement as a commodity agreement is still often associated with price regulation using export quotas or buffer stocks. However, such mechanisms have not been in force since July 1989 and the ICO today works to foster international cooperation on coffee issues in ways which do not intervene directly in the market. The ICO already has a 100 million dollar coffee projects programme and should be regularly consulted with respect to any projects and programmes addressing or affecting the coffee sector in such countries or globally. In coffee, which remains of key importance to a substantial number of developing countries, the ICO, because it brings together both concerned governments and the private sector, constitutes a fundamental instrument for cooperation and coordination.