

Case Study
Risk management by farmers in Ethiopia
Need assessment¹

Instructions for the participants

Read the text of the case study: it is an excerpt of a study made in March 2006 in Ethiopia. Besides a short introduction, only the information strictly relevant to risk and risk management is reported.

- a. Try to make your own analysis on the tables related to the sample characteristics and their exposure and attitude towards risk.
- b. State your opinion on the role of cooperatives

¹ Excerpt from: *Financing coffee farmers in Jimma zone, Ethiopia: challenges and opportunities*, a paper prepared by Anne Bastin for Giordano Dell'Amore Foundation, March 2006. Adapted by Laura Viganò and Luciano Bonomo

INTRODUCTION

Ethiopia is well known as the country of origin of “Buna” (coffee in Amharic) but it is also one of the poorest countries in the sub Saharan region, with a per capita income of about US\$ 100², which is one of the lowest in Africa.

Coffee as a cash crop has always been very important for the Ethiopian economy. In the past, its weight on the total export surpassed 60%, while in the more recent period its share is estimated to have fallen under 40%, due to the drop in the coffee price³. Coffee is a main component of the primary sector’ output; taxes collected on coffee export also constitute a main part of the state revenue⁴. 700.000 households are involved in production, and around 15 million people (approximately 25% of the population) depend on coffee for their lives. 95% of output is from small landholders, many of them are desperately poor. Typically, each smallholder has around 0, 5 hectare (ha) of coffee, yielding below 400 kg of green coffee. The remaining is produced on State farms⁵. Small coffee farmers live in remote rural area of Ethiopia. They are characterized by a low income, low levels of education, big family size and no tangible assets. Moreover, being highly dependent on coffee production, they are highly exposed to the price cycles and shocks occurring in the (international) markets of the agricultural commodities.

In the region of Jimma - which is also where our present study was conducted - the Oxfam study found that farmers could not cover their basic production costs and were operating at a loss. After the harvest in September 2001, farmers sold red cherry at between Birr⁶ 0.5-1.00/kg, while average production costs were approximately Birr 0.53/kg. This evidence points to the high instability implicit in coffee production and in its entire value chain. The situation could be even aggravated if appropriate financial and risk management services were absent in the local market, as is typically the case in most developing countries.

Concerning the coffee marketing value chain, the coffee producers have got two options:

- Either, the producers sell their red cherries to the primary cooperatives, which are going through the washing process and then the cooperatives sell to the Union in Addis Ababa. The Union, after verifying the quality, sells the coffee to the exporters directly in the international market and bypass the auction. First, the farmers receive the market price for their goods sold to the cooperatives. If the coffee has been sold at a good price, 70% of the profit will be repaid to the primary cooperatives and the members should receive their dividends.
- The second option for the coffee farmers is to sell the sun dried coffee (also called Jenfall⁷ in the local market), directly to the merchants, also called sebsabies⁸. Then these private collectors sell the coffee to the akrabies, who are the local registered private suppliers. Most of the time, the akrabies

² Cf. UN, (2004), *Human Development Report*, Economica, Paris.

³ Cf. Mekuria, T., Neuhoff, D., Köpke, U., (2004), *The Status of Coffee Production and the Potential for Organic Conversion in Ethiopia*, paper presented at the Deutscher Tropentag, 5-7 October, Berlin.

⁴ Cf. LMC International, (2000), *ICO/CFC Study of Marketing and Trading Policies and Systems in Selected Coffee Producing Countries*, February, London.

⁵ Cf. LMC International, (2000), *Ethiopia, Coffee Profile*, Oxford.

⁶ ETB or Birrs is the Ethiopian currency, USD\$ 1= 8,65 Birrs (August 2005)

⁷ Jenfall mean dry coffee, it is important to note that 1kg of dry coffee is equivalent to 3kgs of red cherries.

⁸ The “sebsabies” are primary licensed private collectors of coffee.

have their own hullery and equipment useful for the coffee processing. However, the state farms (covering about 5% of the country's production) wash their coffee, hull it and send it directly to the auction centers.

Jimma zone in the Oromia Regional State

In Jimma zone, the main part of the farmers depends on coffee: the farmers producing “Arabica” coffee in the region are 424,309 and 95% of the production is done by small farmers. 85% of the coffee in the region is sun dried (unwashed) coffee. Out of the 13 woredas in this zone, only 7 focus on the coffee production. Goma and Mana, where the study was conducted, are two major growing coffee areas. (cf. figure 2 below with the map of the study area).

Source of information

Primary information was gathered by interviewing 87 farmers and semi-structured questionnaires were administered in data acquisition. They were two types of questionnaires, one for the farmers having received financial service in the past and a second questionnaire for the farmers who never had any kind of financial service before (formal, nor informal financial service). In both questionnaires, there are similar questions regarding the social and economic aspects of the coffee producers. Before the questionnaire was made ready for data acquisition, pre-testing was carried out and some adjustments were done on the questionnaire, to make sure that it fits the local situation. In order to interview 87 farmers within a short period of time, the NGO FCE (Facilitator for Change Ethiopia), based in Jimma, provided eight enumerators and a senior assistant for translation and facilitating the research work.

SOME DATA ON THE FARMERS EXPOSURE TO RISK

The following tables report the main findings related to the farmers exposure, attitude and reaction to risk.

Table 1: Selected Background Information

	N°	Minimum	Maximum	Median	Mean	Std. Deviation
Age	87	25	73	45	46	10.7
Family size	87	2.0	14	7	7.2	2.8
Children below 5	87	0.0	4	1	1.2	1.2
Working people	87	0.0	14	5	5.4	2.3
Elder people	87	0.0	5	0	.54	.9
Children going to school	87	0.0	9	2	2.5	1.7
Children never go to school	87	0.0	6	0	.80	1.7
House road distance in Km	86	0.0	12	1	2	2.3
House market distance	86	0.0	15	5	4.7	4
Size of land in Ha	87	0.56	5.5	1	1.2	0.8
Coffee land	87	0.07	3.2	0.5	0.6	.5
Crop farm	87	-	2.5	0.5	.54	.4
Vegetable land	87	-	.5	0	.08	.1
Grazing land	87	-	.5	0	.02	.07
Proportional income percentage for the first activity of income	87	40	100	70	70.7	13.8
Proportional percentage in income of the second activity source of income	87	.00	50	20	21	9.7

Source: Author's data

Table 2: Coffee cultivation as the first source of income

	N°	(%)
Missing	3	3.4
Yes	83	95.4
No	1	1.1
Total	87	100.0

Source: Author's data

Risk Management

Table 2: Main risks perceived by the coffee farmers⁹

Main Risks	%
Coffee Price Volatility	85.1
Coffee Disease (CBS)	55.2
Lack of access to loans	47.1
Weather Conditions	24.1
Illness/disease of the family	19.5
Scarcity of land	11.5
Fall in other crop income	8

Source: Author's data

Table 4: Risk Coping strategies in the coffee sector¹⁰

Farm's activities diversification (other crops, animal fattening)	44,8%
Coffee quality differentiation (organic)	42,5%
Reduction of operative costs	20,7%
Secondary rural and/or non rural activities	18,4%
Commercial Credit	13,8%
Long-term contracts with buyers	12,6%
Saving	2,3%

Source: Author's data

Table 5: Risk by farmers' size¹¹

Main Risks Encountered	Small	Medium	Big	Row total	Sample incidence
(%)	(%)	(%)	(%)	(%)	(%)
Volatility of Prices	54,1	39,2	6,8	100	85,05
Coffee Disease	54,2	39,6	6,3	100	55,2
Lack of access to FS	43,9	48,8	7,3	100	47,1
Weather Conditions	66,7	33,3	0	100	24,1
Illness disease in the family	52,9	23,5	23,5	100	19,5
Scarcity of land	70	20	10	100	11,5
Fall in other crop income	57,1	28,6	14,3	100	8

Source: Author's Data

⁹ The numbers do not add up to 100 due to multiple responses

¹⁰ The numbers do not add up to 100% due to multiple responses

¹¹ Multiple responses and row percentages. The last column refers to the risk incidence over the total sample (87 farmers).

Table 6: Risks coping mechanisms used by the different farmers size:

Instruments of Risk Management	Small Farmers	Medium	High	Sample Incidence
	(%)	(%)	(%)	(%)
Farm's activities diversification (other crops, animal fattening)	48.7	38.5	12.8	44.8
Coffee quality differentiation (organic)	54.1	37.8	8.1	42.5
Reduction of operative costs	55.6	38.9	5.6	20.7
Secondary rural and/or non rural activities	68.8	31.3	0	18.4
Commercial Credit	58.3	33.3	8.3	13.8
Long-term contracts with buyers	72.7	18.2	9.1	12.6
Savings	0	50	50	2.3

Source: Author's data

COOPERATIVE MEMBERSHIP, ACCESS TO FS AND RISK MANAGEMENT

Co-operative memberships among coffee growers is quite common in the area analysed. The following tables show the main data in this respect.

Table 7: Membership in the Primary Cooperative

	N°	(%)
Cooperative	62	71.3
Non cooperative	25	28.7
Total	87	100

Source: Author's data

Table 7 shows that majority of the sample belongs to primary cooperatives. This fact can be explained by at least two factors: first, in the original survey design, we stratified two identical groups (50% each), according to the membership. However, for historical reasons, most of the farmers belong to cooperatives even if they are not always active members. Therefore, an over representation of members on the sample goes in the right direction.

Table 8: Access to Financial services and Membership in Cooperative (absolute values)

		Membership		Total
		Cooperative	Non cooperative	N°
Financial services	Yes	53	3	56

Non Financial Services	No	9	22	31
Total		62	25	87

Source: Author's data

Table 8 suggests positive relation between the farmers having access to FS and those organized in cooperatives. Among people having access to FS (56), 53 belong to cooperatives (94.6%). Instead, among the 31 farmers who did not receive any FS, only 9 belong to cooperative (5.4%). So, it seems that participation in a cooperative gives a higher probability of access to FS.

Table 9: Benefits from Cooperative membership

Being a cooperative member offers advantages	N°	(%)
Yes	48	77.4
No	11	17.7
Missing	3	4.8
Total	62	100

Source: Author's data

Table 9 is based on the experience of the members and the support they got from their cooperatives, whereas table 10 is a summary, according to the cooperatives members, of what should be the advantages to receive from the cooperatives.

Table 10: Main (actual) advantages of cooperative membership (multiple choice)

Services received	N°	(%)
Provide advises	41	66.1
Provided training / information	33	53.2
Offered new friendship	17	27.4
Providede business ideas / contacts	12	19.4

Source: Author's data

Table 10 shows the important role played by the primary cooperatives in providing information, contacts and training to the producers. In this aspect, cooperatives bring advises on how to grow organic coffee and to protect the plants from the CBS disease. These services are relevant in these kebeles often located in remote areas where it is difficult to get information and contacts.

Table 11: Main (hypothetical) advantages of cooperative membership (multiple choices)

Expected Services	N°	(%)
Regulate and stabilize prices	35	56.5
Help to maintain quality of coffee	26	41.9
Help to access financial services	25	40.3
Provide information on the markets	24	38.7

Improve income by exporting coffee	16	25.8
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Source: Author's data

Even if the cooperative members are satisfied with the advices provided by their respective cooperatives, they expect more support and other services in the future. For the majority of the sample interviewed (56.5%), the primary cooperatives should regulate and stabilize coffee prices on the markets so that all producers would get advantages to sell directly to the cooperatives instead of selling to the merchants (also called akrabies). Access to financial services ranks in third position (40.3%), just before providing information on the markets (38.7%). During the field trip, many of the coffee producers were complaining about the fact that they could not have any information on prices and had no power of negotiation with the merchants; however, they reported that in most cases, they were receiving a higher price (up to 20% difference) by selling their dry coffee directly to the merchants coming to the villages.

Table 12: Trends of income in relation with cooperative membership

Trend of income	Decreased (%)	Stayed the same (%)	Increased (%)	Total (row) (%)
Membership	9.7	20.1	69.3	71.3
Non Membership	8	36	56	28.7
% of Total	9.2	25.2	65.6	100.0

Source: Author's data

Table 12 (last row) indicates that a majority portion (65.6%) of the sample experienced an increase of income, while a minority share (25.2%) a steady pattern of it. The explanation is that 2004 was a good year for coffee prices; since there is a high dependence of the farmers towards coffee production, they are directly affected, in a positive or negative way, by the price fluctuation of coffee. However, within the two groups (with and without membership), the situation of the members seems to be slightly better than those without, especially with respect to the group “increase of income” (almost 70% for the first, against only 56% for the latter). So, this evidence suggests that there should be a light positive relationship between producers' membership in cooperative and income dynamics.

This idea is substantially reflected in another specific demand we posed to the 62 cooperative members, concerning the perceived advantages of being member: 77.4% said they benefited from the cooperative, while 17.7% said they did not get any advantage and 4.8% did not give us any answer.

REFERENCES:

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