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Capital Formation in Agricultural Cooperatives

Report of COPAC International Technical Meeting
Rome, 8-10 November 1995

COMMITTEE FOR THE PROMOTION AND ADVANCEMENT OF COOPERATIVES
(C O P A C)
15, Route des Morillons, 1218 Grand Saconnex, Geneva, Switzerland
Tel +41 22 929 8825 ~ Fax +41 22 798 4122 ~ E-mail: copac@coop.org ~ Web Site: http://www.copacgva.org

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Introduction

In late 1992, with special financial and technical support from FAO and from sister member organizations, COPAC launched a global study to examine the problem of capital formation in agricultural cooperatives in developing countries.

The main purpose of this research effort was to undertake research in selected developing countries and transitional economies aimed at identifying successful strategies for mobilizing cooperative capital to finance cooperative business growth. Research on this issue was conducted in India, Kenya and Guatemala. During the 1993-1995 period, COPAC held three international open fora and workshops on the subject. The third meeting, held at FAO Headquarters in Rome, Italy, 8-10 November 1995, is the topic of this report.

Organization of the Meeting

The meeting was held in the Lebanon Room of the FAO Headquarters Building in Rome and was attended by 51 participants from 13 countries, representing 22 organizations.

The opening and closing sessions were chaired by the Vice-Chairman of COPAC, Mr. Christopher E. Baker. Intermediate sessions were chaired by distinguished persons selected from amongst the participants (see Annex 1 for listing). FAO was represented by Ms. Leena Kirjavainen, Director, Women and People's Participation Division, by Ms. Jennie Dey-Abbas, Chief, People's Participation Service and by Mr. John Rouse, Senior Officer, People's Participation Service, who had been the moving force in this initiative to examine capital in agricultural cooperatives in collaboration with COPAC members. A number of technical officers from several concerned FAO divisions also participated. The programme of the meeting and the list of participants are given in Annexes 1 and 4 respectively.

Mr. Gustavo Gordillo de Anda, Director, Rural Development and Agrarian Reform Division, speaking on behalf of Mr. Henri Carsalade, Assistant Director-General, Sustainable Development Department, opened the workshop and presented the welcome address. The text of the welcome address is given in Annex 2.

The keynote paper "Capital Formation in Agricultural Cooperatives in Developing Countries: Research Issues, Findings and Policy Implications for Cooperatives and Donors" summarized the main findings of the India, Kenya and Guatemala studies. It was presented by the author, Mr. J.D. Von Pischke. This was followed by individual reports on the research findings in each of the study countries by the participating researchers: Prof. M.S. Sriram, Institute of Rural Management (IRMA), Anand, India (India Study); Mr. Richard Wamakau, President, Kenya National Federation of Cooperatives and Mr. Pekka Jamsen, Finnish Cooperative Centre (Kenya study); and Mr. Peter Marion, consultant (Guatemala study).

Two special papers were also presented on related topics: on "Capital Formation in U.S. Agricultural Cooperatives – Recent Developments" by Prof. Michael Cook, Department of Agricultural Economics, Missouri University, Columbia, Missouri, USA, and on "Financial Capital in Cooperatives: Specific Nature and Efficiency Analysis" by Mr. G. Deshayes, Consultant.

Sessions on the above papers were held in plenary, with half-a-day devoted to work in discussion groups at the end of the meeting to arrive at final conclusions and recommendations.

Flipcharts were placed in the plenary hall, and from the outset participants were invited to write down any subject or issue they were interested in discussing. All the points found on the flipcharts were taken into consideration in the discussions, and particularly in the group work. This started at mid-day on Thursday, the two groups being composed of about 20 participants each. Chairpersons for each group were elected, and two rapporteurs were selected. These met in a drafting committee with Mr. Bjorn Genberg and Mr. Tristram Eastwood on Thursday evening. The two group reports were presented verbally at the closing session of the meeting, accompanied by photocopies of the two handwritten reports. These have been edited and appear as a part of this report.

Logistics of the meeting were handled by Ms. Vittoria Zaffarano, Office Manager of the COPAC Secretariat. Mr. John Rouse was responsible for overall planning and coordination of the meeting, with the assistance of Mr. Tristram Eastwood, COPAC Executive Secretary. FAO hosted a reception for the participants on Thursday, 8 November.

Report of the Meeting

I. Why Capital, Why Cooperatives?

The nature and role of capital in cooperatives has been of interest ever since modern cooperatives were first established. The subject has an inherent fascination because it illuminates a distinguishing difference between cooperatives and other forms of business organizations, i.e. as member user-owned rather than as investor-owned firms.

Today, a number of developments have occurred that give new importance to the question of cooperative capital. These include: (a) the dissolving of the bi-polar world composed of two competing ideological and economic block systems and the resulting transition of many economies from centralized control to market orientations, and (b) the related globalization of markets through trade deregulation and liberalization, privatization and structural adjustment. These changes are operationalized through withdrawal of government, removal of subsidies and the opening-up of national markets to broader local and foreign competition.

In agriculture, a fast-moving technological revolution is now underway in the industrialized countries. This aims at the industrialization of major farm production activities on a huge scale and the creation of a vast volume of low-cost standardized food products for global markets. It is made possible by new bio-technology permitting substantial increases in yields, uniformity of product, and computerization of high volume operations. This is a highly capital-intensive development which is likely to drive traditional producers and many agricultural cooperatives out of business.

II. Cooperatives, Change and Capital

What are the implications of these changes? How do they affect farmers and their cooperatives? What is to be done? What are cooperatives actually doing? What success have they had?

For those who see farming as "a way of life" as well as a business, for those who value rural communities and traditions, and for those who look at national and regional food production and security as strategic imperatives, the changes taking place must raise a few questions.

The implications are global; the process is at an early stage, and the effect will be differentiated according to the type of agriculture practised and the cultural, political, economic, legislative, fiscal and monetary environment in each country or region.

In the free-market industrialized countries, independent farmers will have to compete even harder to survive. Competing often means mobilizing common interest, utilizing well-tried cooperative organizational techniques to set up structures owned, controlled and used by farmer members. It means yet one more challenge to the solidarity and ingenuity of the members of farmers' cooperatives.

Competing also means adopting leading edge technology, and investing in the new wave of bio-technological production, which can be expensive business. Those cooperatives successfully competing at the leading edge have a valuable role to play in advising other farmer cooperatives on how to succeed, so that the new value-added may extend downstream beyond the farm-gate of ownership control, rather than allow the intrusion of powerful non-farmer investor interests into the countryside.

Speaking at the COPAC Open Forum on Cooperatives and Farmers' Organizations, held at the World Summit for Social Development in Copenhagen in March 1995, the President of the International Federation of Agricultural Producers (IFAP), Mr. Graham Blight, warned farmers that they had better cooperate, or they would lose out to the new powerful threats on the horizon of the farm.

Some regard capital as the "Achilles' heel" of cooperatives. According to these, the current challenge facing farmers and their cooperatives is to mobilize enough funds to meet the growing demands of capital-intensive investment in leading edge technology. Either farmers generate enough funds to acquire and use it or they are simply forced out of business.

But as was pointed out in plenary sessions of this technical meeting, farmers and their families, including women farmers, have an astonishing power to rally their collective energies and mobilize capital when they have a strong common interest, a market opportunity and a threat to counter. The history of the cooperative struggle in Europe, the Americas and parts of Asia is filled with references to this.

Authentic cooperatives are born out of such challenges, and are strengthened by them. To give a relevant early example, a flood of cheap imported foodstuffs depressed farm prices in the middle of the last century in Europe, particularly Germany, producing rural misery. But this also served as a stimulus to mobilizing capital through popular participation which ultimately led to the establishment of farmer-owned savings, credit and purchasing cooperatives that became the foundation of the Raiffeisen movement.

Statistics showing that farmers' cooperatives are now increasing their market share in input and output trading in the USA formed part of Professor Michael Cook's interesting exposition of how agricultural cooperatives have developed in the United States. Of particular note was the news regarding the recent establishment of a "new generation" of agricultural cooperatives which have developed innovative and up until now successful methods for mobilizing member capital so they can compete in their rapidly changing agricultural markets.

It is encouraging to learn of the resurgence of agricultural cooperatives in the United States. But what are the implications of the new high-tech, capital-intensive investments for European farmers and their cooperatives, for those in the CIS, for those in Latin America, Africa, Asia and other regions?

In many developing countries, the impact of these changes is closely related to the degree of government financial support and/or control that was exercised in these countries in the previous era of subsidies and direct promotion. In many cooperative movements in developing countries a kind of "winnowing process" is now underway: those that cannot stand without taxpayer support will go under, while those that promote member commitment through the provision of useful member services will survive and should thrive.

III. Research Methodology and Country Findings

The COPAC studies were designed to test several hypotheses on cooperative capital. Many cooperatives in developing countries have low levels of member financing. Yet with government and donor-financing to the cooperative sector declining and with commercial bank financing of rural cooperatives still in its infancy, it is clear that most capital for investment in the near future will have to come from the members themselves. The problem is that, at least in the agricultural cooperative sector, there is little tradition or desire for member financing of cooperatives' business activities. Accustomed to decades of government financial and technical support and guidance, many cooperative leaders and members are not ready to make the change. To change attitudes, these same individuals have to be shown, empirically, that member-based cooperative financing strategies are essential to survival under the new, rapidly liberalizing market conditions.

Is it possible to demonstrate a positive correlation between member support in the form of capital contributed, member control and participation on the one hand, and improved cooperative business performance in the market, greater member satisfaction, and growth on the other? If so, it would then be much easier to convince skeptics of the positive value of member-based cooperative financing schemes.

The main hypothesis advanced by FAO and the key architect of the research effort, Mr. Von Pischke, is that cooperative capital has an important "quality dimension" and that higher proportions of member capital (including indivisible reserves, share capital, loan-deposit ratios, etc.) are positively correlated with higher levels of member commitment, participation and control and with improved cooperative business performance and growth.

This main hypothesis is elaborated into a series of working sub-hypotheses. The methodology for the research exercise design involved the collection of quantitative and qualitative data (cooperative records going back for 10 years, for example), precise quantitative treatment of data wherever possible, supplemented by interviews, and the consideration of a large number of business indicators. Case studies were carried out in Guatemala, Kenya and India to test these hypotheses.

The overall results of the three country studies are synthesized by Mr. Von Pischke in his paper "Capital Formation in Agricultural Cooperatives in Developing Countries; Research Issues, Findings and Policy Implications for Cooperatives and Donors" (see Annex 3). Mr. Von Pischke summarized the main findings of this paper at the beginning of the meeting, providing an overall analytical framework for the subsequent presentations by the authors of the country case studies and the discussions of the main issues raised.

The original sub-hypotheses were found most likely to apply in mixed economic/policy environments characterized by a degree of free market and some government intervention in cooperatives. For example, in India, a country which exhibits characteristics of such a mixed environment, the hypothesized relationships generally seemed to apply. As a bonus from the Indian study, the important dimension of federal relations (between primaries and unions) was also explored.

In Kenya, where government intervention and control of cooperative product markets and financing was more extensive, however, the findings showed that member control and growth of the cooperative did not seem to have a clear positive association with increased members' financial stake in the cooperative. According to the report, "government control and guidance with good intentions" was the distinguishing feature of the cooperatives studied. Economic motivations based on free market forces appeared to play a less important role. Government tutelage seemed to have replaced the need for active member control. Cooperatives were considered to be public property.

The Guatemalan study of two cooperatives with contrasting capital formation strategies showed a very different environment - a free market without any government involvement with cooperatives. Amongst other valuable lessons, the paper showed that in certain markets a high degree of leverage was possible, and, arguably, could be advantageous for the business and for the members.

The Guatemalan study showed that a totally different relationship from that hypothesized could and did exist. A high degree of member finance was associated with stagnation in one cooperative, while conversely, a low proportion of member equity compared with non-member debt capital in the other cooperative was related to an aggressive growth-oriented strategy in the market. While pursuit of the latter strategy entailed certain risks and the cooperative studied had become over-leveraged, pursuit of a more moderate degree might have been a winning strategy. The growth-oriented strategy was associated with a high degree of member control, participation and satisfaction as well as with growth of the enterprise. Conversely, the other cooperative, showing a higher degree of member-owned capital, was less dynamic, perhaps opening up the possibility of a reverse relationship in certain (perhaps temporary) cases: the association of stagnation with high quality capital.

Importantly, the research also demonstrated that beyond a certain point more capital in the form of unallocated reserves can easily work against cooperative performance and principles. Members may restrict new entrants and may try to capture the unallocated value through pricing strategies, for example, and possibly ultimately through liquidation of the cooperative.

IV. Discussion of the Country Papers

In the discussion of the three country studies, it was pointed out that differences in the quality of management, the legislative, fiscal and monetary environments existing in a specific country, relations with government, and the degree of government intervention might be powerful enough factors in themselves in affecting the direction of the relationships determining and associated with capital formation in agricultural cooperatives.

The question was therefore asked: from whose point of view should the "quality of capital" be defined? From the members' point of view, from the cooperative manager's perspective or from government's or some outsider's vantage point? A low quality capital structure could mean apathy in a government-dominated scenario, or the intelligent use by members of leverage in a free-market environment. In spite of some evidence confirming the hypotheses in the India case study, life turned out to be more complicated than the hypotheses suggested.

The meeting also took into consideration the case of high inflation and its effect on member capital. If a cooperative can obtain a low-interest loan in an inflationary environment, it may pay back less than it borrowed, and extract rent from the financial market. As in the case of the Guatemalan leverage, the winning strategy in an inflationary environment may not correlate with a high proportion of member-owned capital.

Different types of agricultural cooperatives have different capital structures and strategies. Financial cooperatives were a different case from marketing and processing cooperatives, or again from input supply cooperatives.

In spite of these new perspectives, which greatly enriched and broadened the debate, it was agreed that the concept of the quality of a cooperative's capital was still valid as a general proposition, especially for long-term stability, independence, and lower financial costs. The degree of a member's financial stake was an essential element in the dynamic of the situation.

With regard to future research in this field, it was agreed that it would be profitable to focus on the question of "what works?" when it comes to analysing or promoting successful cooperative capitalization.

V Special Papers:

Paper I: "A Brief Description of the Dynamics of Capital Formation in Agricultural Cooperatives in the United States", by Professor Michael Cook

Professor Cook gave some background information on the position of agricultural cooperatives in the USA. In 1987, the United States Department of Agriculture (USDA) produced a report on the "Positioning of US Agricultural Cooperatives in the Market" which stressed the nature of the cooperative as "having user ownership, control and benefit". In the USA, there were 4,000 agricultural cooperatives with a total turnover of $ 100 billion and, unlike in some countries, outside directors could sit on their boards. He also pointed out that five hundred of these had set up the endowed chair at Missouri University which the speaker occupied. He further added that the "number one" issue in cooperative discussion in the USA today was capital formation.

Professor Cook reminded participants of the necessity of understanding cooperatives in terms of their "life-cycles," which added a new dimension to the discussion. Various theories had been advanced by different economists about the behaviour of cooperatives in the market, including the "wave theory", and the "wind-it-up", "pacemaker" and "mop-up" theories.

In a market economy, a practical way to assess whether or not cooperatives were fulfilling their members' needs was to measure their change in market share for inputs and outputs. With some variations, the evidence showed a strong growth of cooperative market share in recent years.

He pointed out that agricultural cooperatives in the United States were formed mainly for defensive reasons: either to maintain or preserve economic balance within a sector (equity concerns) or to cope with market failure. Cooperatives formed for the first reason tended to be short-lived, whereas cooperatives formed for the second reason generally had a better chance of surviving.

Five types of US agricultural cooperative were identified, starting in the 1930's with the farm credit and rural utilities cooperatives, and proceeding through Nourse I and II, and Sapiro I and II (the names were related to economists who have identified each type). And since the 1990's, a new generation of agricultural cooperative had come into existence - the Sapiro III.

The growth and development of cooperatives over time commonly led to an increase in heterogeneity amongst the membership, and to various conflicts, the two major issues being residual claims and decision control. Some common problems were classified as: the "free rider" problem, the "horizon" problem, the "portfolio" problem, the "control" problem, and the "influence costs" problem.

Professor Cook showed a chart with five recent types of cooperatives and the residual claimant and decision control problems inherent in each type. It was interesting to note that, while earlier types of cooperatives had been seriously affected by one or both of these problems, the new generation "Sapiro III" cooperatives were minimally affected.

A cooperative might meet a temporary economic need. In short, cooperation did not need to be forever. In those cases, the possibilities of a "wind it up", conversion to an investor-owned firm, or transition to a "new generation" cooperative set-up were open. The speaker looked at the various options open to a cooperative reaching its point of strategic choice: Should it exit, continue or transform itself into some new form of cooperation?

Paper II: "Economic, Legal and Financial Characteristics of Cooperatives", by Mr. Gerard Deshayes

Mr. Gerard Deshayes made a wide-ranging intellectual tour d'horizon of agricultural cooperatives in France, introducing some rigorous tools of analysis which opened up yet another approach to the question of capital in cooperatives.

Beginning with an examination of the cooperative enterprise in contrast to the non-cooperative enterprise in society and in the market, the speaker then contrasted economic profit with accounting profit.

Special attention was paid to the cooperative as a legal entity, and to the obligation incumbent on all members to honour debts towards third parties. The role of capital in providing guarantees to third parties was brought out, and an analysis was made of residual claims.

A graph was introduced showing an index of constituted financial reserves on the horizontal axis, and an index of prices paid to members in marketing cooperatives on the other axis. These represented two options for the same money: either the cooperative increased prices to members and reduced capitalization, or vice versa. It was thus possible to trace lines of the same efficiency in terms of gross profitability, and to locate specific cooperatives (or the same cooperative in different years) in specific sectors of the graph. Empirical use of this graph over time with French marketing cooperatives indicated a trend: if a cooperative did well, it would be most likely to do better, if it did badly, it would be likely to do worse. common problems were classified as: the "free rider" problem, the "horizon" problem, the "portfolio" problem, the "control" problem, and the "influence costs" problem. Professor Cook showed a chart with five recent types of cooperatives and the residual claimant and decision control problems inherent in each type. It was interesting to note that, while earlier types of cooperatives had been seriously affected by one or both of these problems, the new generation "Sapiro III" cooperatives were minimally affected.

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Although there were various options involving conversion to or relations with an investor-oriented corporation, one route being taken by some US cooperatives was transition to a "new generation" cooperative. The characteristics of these included: value-added marketing, an appreciable and transferable "delivery right", defined membership, pooling plus market agreement, and up-front equity capital.

VI. Conclusions and Recommendations

Group A Report

Chairman: Mr. Panagiotis Kolyris
Rapporteur: Prof. M. S. Sriram

The group had a semi-structured discussion on the various points listed below.

1) Why do we need capital?

The discussion on why do we need capital was addressed in the context of management functions.

Capital generation should be a means to achieve something and not an end in itself. A good "manager" would ensure that the capital generated by a cooperative would be put to good use. The group recognized that generation of capital therefore had to be "need based".

2) How do we generate it?

The major part of this discussion concentrated on how to generate capital. To make the discussion more focused, the group agreed to make the following assumptions:

a) that the cooperative had an efficient management;
b) that there was no interference from the Government; and
c) that there was a competitive environment.

Whenever these assumptions were violated, the strategies discussed were appropriately qualified.

- **Strategy 1 : Guarantees**

Members could be asked to give guarantees, with their personal assets as collateral security on a multiple of their share capital. The cooperative could borrow from financial institutions, based on these guarantees. The special feature of this strategy is that the members are investing faith in the cooperative and not money at the outset.

This strategy has three preconditions:

- that the banking system functions along commercial lines;
- that members agree to assume an obligation to supply a minimum amount of produce, which gives the bank confidence in the turnover and also makes the members involved; and
- that the guarantees and obligations are readily enforceable by law.

Strategy 2: Check-offs

A compulsory levy or "check-off" system can be introduced to collect from members' payments due. The check-off should be based on the total value rather than the number of transactions generated by each member. This strategy is likely to work better in controlled markets (coffee in Kenya, resource-poor areas in India). The check-offs could be indivisible, member-non-identifiable (Kenya) or member- identifiable (India). The Group felt that it would be better if these were member identifiable.

In relatively free markets this might be an ineffective strategy unless the cooperative has a good management. But even in open markets the strategy might be an important mechanism to address the "free-rider-problem".

- **Strategy 3: Retain Surpluses**

A concerted, conscious effort must be made to retain a portion of profits under the indivisible reserves category. This should ensure the stability of the cooperative even if a few members withdraw their investments.

Surpluses can also be retained by having member-identifiable reserves, but indivisible reserves were preferred by the group.

- **Strategy 4: Exotics**

Various options are possible under this strategy:

a) Allowing for multiple shares and the allocation of voting rights according to the number of shares held with an upper limit so as to prevent easy take-over.
b) Determining capital contributions and voting rights in proportion to delivery.
c) Allowing for multiple shares and a single vote, with veto power for those who have a high stake.
d) Expansion of membership criteria to include suppliers of capital (complications could arise on patronage benefit sharing).
e) Creation of a subsidiary company to tap the stock market, providing that the cooperative has at least 51% shares in the subsidiary.
f) In case of higher level cooperatives, formation of joint-stock companies with primaries exercising full control.

In the case of a federal or secondary level cooperative: all agreed it was necessary to watch out for higher level cooperatives trying to survive for the sake of their managerial cadres and losing sight of the ultimate beneficiary.

Group B Report:

Chairman: Prof. Eberhard Dulfer
Rapporteurs: Mr. Bernd Belkenhol, Ms. Elena Diacenco

1) Preliminaries: definitional issues

Different forms of cooperative capital should be defined (external, internal, institutional, divisible, indivisible, etc.)

Grading of the quality of cooperative capital might depend on the point of view, for example: the management would favour unallocated reserves, because they were long-term and cheap. The bank would have a similar view, but the member might prefer allocated capital with a short-term redemption possibility.

2) Cooperative capital formation: important for whom and in what sort of situation?

- increased market shares
- expansion into more capital-intensive activities
- export
- enhanced creditworthiness generally
- commitment, patronage

3) What works? (more or less): mechanisms for enhanced capital formation:

a) direct investment (member share capital) methods (raise minimum number required per member) common equity.
b) retained patronage refunds (increase portion of retained allocated surplus)
c) per unit capital retained (raise the percentage of allocated revenue that is retained per year) (example: Tri-Valley Cooperative in the USA, where 18 percent of gross earnings revolved over 3-4 years)
d) maximize unallocated cooperative equity
e) raise non-member equity capital (relevant primarily for multi-purpose-cooperatives)
f) mandatory patron capital common equity (require a sub-group of cooperative members to raise extra share capital if they wish to initiate a new activity)
g) optional equity (preferred stock with cumulative returns) limited to members or communities where members live; return is paid, if surplus permits (before common equity)
h) agreements with investor-owned firms
   - Joint Venture
   - License Agreements
   - Joint Ownership of Profit Subsidiaries
i) transfer of a cooperative-owned business to a joint-stock corporation (involving leasing arrangements and supply contracts, etc.)
j) new generation-type of cooperative. Capital: purchase of delivery rights.

4) Factors that influence cooperative capital formation

- Antitrust laws with waiver dispositions
- Monetary policy
- Flexible incorporation requirements
- Definition of property rights
- Independent, fast law enforcement
- Government direct ownership of cooperative capital
- Repression/liberalization of financial markets (input, produce, finance)
- Management quality (analyze capital requirements, informed about capital formation alternatives)
- Relations, communications, information between management and members
- Support infrastructure (farm credit system)
- Internal and external audit systems

• **Recommendations**

<u>To Governments and Donors</u>:

All funding to cooperatives should be routed through the cooperative movement; Cooperatives should accept funding in such a way that it does not undermine the autonomy of the cooperative. The danger is that:

(a) donors have their own agendas, and
(b) in most cases governments are the main recipients of aid to cooperatives.

However, in the movement from controlled to open market economies, it is fair and reasonable for cooperatives to seek support in making this transition. In all cases, Principle 4 of the new Cooperative Identity Statement adopted by the International Cooperative Alliance in Manchester in September 1995 should be the guiding principle.

Funding should be aimed at real cooperatives, which might mean bypassing federal structures and going directly to the primary societies.

To FAO and COPAC:

Three position papers should be prepared on the following topics:

1) Why is capital required in agricultural cooperatives, when is it required, and how can it be raised? This paper should be written in easy-to-understand language, well illustrated and aimed at a general reading public.

2) Practical guidelines for capital formation which would include a three-dimensional layout (not a prescription for use by agricultural cooperative managers) showing:

kinds of capital required
types of capital available
the conditions of each type

This checklist should be developed from real-life cases of successful practices. It should consider, inter alia, the environmental factors and the different types of cooperative involved.

3) A study of the new institutional economics and farmers' cooperatives, covering, inter alia, effective instruments and incentives for capital formation. FAO and COPAC should undertake further development of analytical techniques to assess the role of capital in agricultural cooperatives.

Annex I – Programme

Wednesday, 8 November 1995

08.30 - 09.00	Registration
09.00 - 10.30	SESSION I - Chairman: Mr. Christopher E. Baker
	Welcome Address: Mr. Henri CARSALADE, Assistant Director-General, Sustainable Development Department, FAO
	Keynote Address: Mr. J.D. VON PISCHKE, World Bank Consultant
	"Cooperative Capital and the Work of FAO's People's Participation Service": Mr. John ROUSE, Senior Officer, People's Participation Service, FAO
	General Orientation: Mr. Tristram EASTWOOD, COPAC Executive Secretary
10.30 - 11.00	Coffee break
11.00 - 12.30	SESSION II - Chairperson: Ms. Giuseppina Pela
	Presentation of Indian Study Results: Prof. M.S. SRIRAM, Institute of Rural Management (IRMA), Anand, India Questions and answers; discussions
12.30 - 14.00	Lunch break
14.00 - 15.30	SESSION III - Chairman: Prof. Eberhard Dulfer
	Presentation of Kenyan Study Results: - Mr. Richard WAMAKAU, President, Kenya National Federation of Cooperatives - Mr. Pekka JAMSEN, Finnish Cooperative Centre Questions and answers; discussions
15.30 - 16.00	Coffee break
16.00 - 17.30	SESSION IV - Chairman: Mr. B.D. Sharma
	Presentation of Guatemalan Study Results: Mr. Peter MARION Questions and answers; discussions
17.30	End of day's session
18.00	Reception

Thursday, 9 November 1995

09.00 - 09.45	SESSION I - Chairman: Mr. Richard Wamakau
	"Capital Formation in U.S. Agricultural Cooperatives -Recent Developments": Prof. Michael L. COOK, Department of Agricultural Economics, Missouri University Questions and answers
09.45 - 10.30	SESSION II - Chairman: Mr. Krzysztof Majkowski
	"Financial Capital in Cooperatives: Specific Nature and Efficiency Analysis": Mr. G. DESHAYES Questions and answers
10.30 - 11.00	Coffee break
11.00 - 12.30	SESSION III - Chairman: Mr. Tristram Eastwood Plenary discussions of major issues and assignment of work to study groups
12.30 - 14.00	Lunch break
14.00 - 15.30	SESSION IV - Group discussions on issues and guidelines
15.30 - 16.00	Coffee break
16.00 - 17.30	SESSION V - Group discussions on issues and guidelines
17.30	End of day's sessions
17.30 - 19.30	Drafting Committee: Preparation of draft recommendations

Friday, 10 November 1995

09.00 - 10.00	SESSION I - Chairman: Mr. Björn Genberg Plenary: Presentation of study group reports
10.00 - 10.30	SESSION II - Chairman: Mr. Tristram Eastwood Plenary: Presentation of draft recommendations by Drafting Committee
10.30 - 11.00	Coffee break
11.00 - 12.00	SESSION III - Chairman: Mr. Christopher E. Baker Plenary: Adoption of recommendations
12.00 - 12.15	Closing Session Summary by Mr. Christopher Baker, COPAC Vice-Chairman
12.15 - 12.30	Closure

Annex II – Welcome Address

Mr. H. Carsalade, Assistant Director-General Sustainable Development Department
Food and Agriculture Organization (FAO)

Distinguished guests and fellow colleagues, it is a pleasure and honour to welcome you to this 3-day International Technical Meeting on Capital Formation in Agricultural Cooperatives sponsored by the Committee for the Promotion and Advancement of Cooperatives (COPAC) in collaboration with FAO. The topic of this meeting: "Capital Formation in Agricultural Cooperatives" is, in our view, an important and timely one. It is "important" because the accumulation of financial capital is one of the vital foundation stones for sustainable economic growth and because farmer cooperation is an essential prerequisite for agricultural development.

It is "timely" because the entire economic, social and political environment within which cooperatives operate – at least in developing and transitional economies - is undergoing dramatic change as governments reduce subsidies and supports to the agricultural sector, forcing many cooperatives to look for other sources of capital, especially from their own members, to finance growth.

Less than two months ago, in Manchester, England, the International Cooperative Alliance - an international cooperative apex organization representing more than 750 million individual members worldwide - celebrated its 100th Anniversary!

There is much for ICA members to be proud of. Nowhere can this be better seen than in the agricultural sector, where farmer cooperatives today often hold enormous market shares; for example,

- in USA in the farm-input supply, grain, rural electric supply, dairy, fruit and nut sectors. The co-op brand names of Southern States, Land-of-Lakes and Sunkist are familiar to many of us;
- in Denmark where over 90 percent of dairy and pig production and marketing is handled through cooperatives;
- in Japan where coops market over 95% of the nation's rice;
- in India in the fertilizer supply, dairy (94%) and sugar (55%) sectors;
- in Kenya in the coffee (84%) and dairy (79%) sectors;
- in Costa Rica in the fruit and vegetable (89%) sectors (to name just some examples).

But is all well in the "cooperative world"? Quite frankly, the answer is "No". In those countries where government intervention and control have been strong, and member participation and management accountability weak, there are serious and growing problems, which threaten the very survival of this unique type of farmer business.

A major weakness of agricultural cooperatives, particularly in developing countries, has been the tremendous problems they have faced in mobilizing capital for investment and growth. In the past, many relied heavily on government and outside donors for support. These "partners" were often all too willing to supply their capital needs, as this provided them the leverage to influence or even control the cooperative movement.

The net result of these "easy money" policies (as recent World Bank and ICA studies have pointed out) often led to dependencies which actually undermined, rather than strengthened cooperative self-financing capacities and member service orientation. Cooperative business efficiency and member participation in these "pseudo cooperatives" suffered greatly.

But now that external sources of funding are drying up, these weakened cooperatives must learn how to survive on their own. The problem is that many simply do not know how to do so! Long accustomed to receiving cheap capital infusions from the outside, many are hard-pressed to ask their members to contribute.

At least in theory, increased member equity capital involvement in cooperatives should help to build up each member's "financial stake" in the group enterprise. This would serve as a type of "glue," binding members together and strengthening group commitment and solidarity which is so essential in obtaining cooperative economies-of-scale. Increased member capital should also help improve management accountability and could lead to better and more efficiently-provided member services, since it follows that when you are paying part of the bill - and know you are paying – you tend to demand better cooperative business management and services!

However finding solutions to this problem is not easy because cooperatives are different from normal businesses. They are – or should be - democratically controlled, collectively run member enterprises. Unfortunately, their unique "one person one vote" and "limited return on capital" principles have discouraged the accumulation of member capital. Their member-clientele orientation also tends to make them more "inward- looking" and less interested in courting non-member investors.

FAO interest in the problem of capital formation in agricultural cooperatives goes back more than 3 years when, in collaboration with COPAC and its member organizations, it decided to launch a major international research programme to study this issue in more depth. A major output of this exercise is expected to be an improved set of guidelines for cooperative movements, governments and financing agencies aimed at strengthening the capital base and self-financing capacities of agricultural cooperatives.

We are gathered here this week to review the findings of this research effort and to come up with a set of practical recommendations to cooperative movements, governments and donors for improving the situation.

We all have a challenging and important task in front of us, since the sustainability and continued development of farmer cooperation, which represents a form of "social capital," is an essential pre-condition for achieving food security and for improving the livelihoods of rural men and women and their children.

Good luck in your discussions and thank you!

Annex III- Synthesis Paper

Capital Formation in Agricultural Cooperatives in Developing Countries:
Research Issues, Findings and Policy Implications for Cooperatives and Donors
by Mr. J.D. Von Pischke

- **Abstract**

Empirical studies from Guatemala, India and Kenya were commissioned to test hypotheses that the level and accumulation of the capital of cooperative societies is positively related to their growth, member control and participation, and ability to manage risk. Research findings indicate that these variables are not closely related, but that correlations vary greatly from case to case and from country to country. This appears to arise from differing conditions in cooperatives and in the markets and regulatory regimes that shape them. Patronage appears to be the operative focus for growth. Capital is likely to assume greater importance as cooperatives operate in increasingly competitive markets.

This paper summarizes research on cooperative capital formation in developing country agricultural cooperatives, based on fieldwork in Guatemala, India and Kenya. This research was commissioned by COPAC (the Committee for the Promotion and Advancement of Cooperatives) with financial and technical support from FAO's People's Participation Service.

1. Introduction and Background to the Research

The research and the conference for which this paper has been prepared arise from concerns about cooperative capital formation that have been developed since 1992. Observers in FAO, COPAC, ILO, the World Bank and other agencies had noted that capital formation is at times a major challenge for cooperatives, which often appear to be undercapitalized. Many cooperatives and even entire movements may lack the financial base required for growth and sustainability: a condition that appeared especially serious in agricultural cooperatives. Undercapitalized societies face an additional disadvantage in surviving and prospering in an environment that includes commercial, political and public policy risks. Liberalization of markets through structural adjustment is changing the competitive environment in which cooperatives operate. At the same time it was increasingly clear that donor funding for cooperative development is likely to diminish. Cooperatives have the capacity to create infrastructure that in many cases appears unlikely to be constructed by others, at least within a reasonable time horizon.[1] Inattention to member capital formation can retard or preclude

[1] John Rouse, "Capital, Participation and Cooperative Performance: The Importance of Member Equity Stake." Prepared for the IRMA Symposium on Management of Rural Cooperatives, 7-11 December 1992. Cooperatives and Rural Organization Group, FAO, 1 December 1992.

such development. These converging concerns and observations led COPAC to develop a series of open fora on cooperative capital generally and to commission empirical research on capital formation and its relation to the overall well being of cooperation, which clearly requires member participation. These activities were inaugurated in the COPAC Open Forum on "Revitalising Cooperatives in Developing and Transitional Economies: The Role of Members' Capital" convened in Rome, 2-3 March 1993.

The meeting constituted an initial effort to consider whether empirical research into cooperative capital formation could provide an opening for new initiatives in cooperative promotion, focusing on capital formation as a means of increasing member participation and control. Member participation and control occurs through patronage, general meetings, committee work and audits.

A perspective introduced at that meeting was that cooperative capital has a qualitative dimension.[2] The customary view of capital is quantitative, viewing capital as funds measured in the fungible currency units used to measure commercial performance. Accounting obviously assumes that each dollar, pound, peso or dinar on an accounting statement is equal to every other. The qualitative dimension is based on the proposition that different types and sources of capital have different degrees of what might be called "cooperative power. "Some types and sources of funds do a better job of promoting cooperation and empowering cooperative societies to achieve that mix of ideals, democratic processes and commercial performance that constitutes the promise of cooperation and that creates the epic of member-controlled self-help activities.

It was proposed at the initial open forum that the qualitative aspect could be expressed, at least for analytical purposes, by a weighting attached to accounting quantities in different balance sheet accounts. The system proposed assigns weights to the liabilities and net worth (passif) side of the balance sheet based on perceptions of the extent to which each source or form of funding is related to member commitment or loyalty. Member commitment is implied by the terms and conditions attached to various forms of capital.

The concept paper viewed collectively-owned non-refundable capital ("institutional capital") as embodying the highest level of commitment to the cooperative in view of its source, which is the members and their decisions to retain funds, and its terms and conditions, which make it withdrawable only in liquidation. Institutional capital was accordingly viewed as having the highest possible quality. The next highest quality was member subscriptions that could be withdrawn upon a member's termination of membership, followed by reserves held for specific purposes and having a long life. Members' funds placed temporarily with their cooperative, such as deposits, credit sales and allocations not paid immediately in cash were considered the lowest quality member capital. Non-member capital was likewise weighted. Details are provided in Annex A of this paper, which is extracted from the 1993 paper.

[2] J.D. Von Pischke, "Capital Formation and Performance: Issues in Cooperative Promotion." Paper prepared for the COPAC Open Forum, Rome, 2-3 March 1993. Referred to in the present report as "the concept paper," in which the research hypotheses were stated.

A second COPAC Open Forum, "Revitalising Cooperatives in Developing and Transitional Economies: The Role of Members' Capital - Review of Progress and Future Developments," was held in Geneva on 5 October 1993. A research design proposed at the earlier meeting had been field tested and reviewed by the Institute of Rural Management at Anand (IRMA) in India. Its discussion led to a call for further work, which is embodied in the three studies that form the basis for the present review at this Technical Workshop.

a) Research Objective

Research was commissioned to determine empirically:

1) whether higher levels of capital formation stimulate or are associated with
i) cooperative growth, measured by increases in the volume of business turnover and in the number and proportion of active members, and
ii) greater member participation and control; and
2) whether the quality of cooperative capital is associated with capital accumulation and member control.

b) Hypotheses Tested

Four research hypotheses were proposed to test relationships between capitalization, commercial performance and member participation and control. As is customary and useful in research, the hypotheses were stated boldly so that they could be tested unequivocally. Also, a standard of comparability was stated: "otherwise similar cooperatives." This standard cannot be fully met in every respect in the social sciences: no two cooperatives are alike in all aspects except their capital structure. However, this standard does encourage the search for meaningful differences within classes or types of cooperatives.

Hypothesis A. The greater the proportion of member-owned funds to term debt and evergreen (permanent) working capital loans from non-member sources used by otherwise similar cooperatives, the greater the member control and the greater the growth rate of the cooperative.

Hypothesis A is the most simple of the tests. It suggests that member control and growth are directly related to the proportion of the cooperative's resources supplied by members. Seasonal working capital is excluded to avoid extra computations related to short term changes.

Hypothesis B. The higher the quality of capital in otherwise similar cooperatives, the greater the member control and the greater the growth of the cooperative.

Hypothesis B is the simple test of the quality of capital. Quality would be measured by comparing total weighted liabilities and net worth with total unweighted or accounting liabilities and net worth. No specific weights for different types and sources of funds were recommended in the research design.

Hypothesis C. The higher the growth of member-owned funds in otherwise similar cooperatives, the greater the member control and the greater the growth of the cooperative.

Hypothesis C relates the extent of member capitalization to member control and growth. Societies that are accumulating funds are expected to be more vigorous commercially and to practice cooperative democracy, ensuring member control.

Hypothesis D. The greater the quantity of member-owned funds in proportion to non-member funds, and the higher the quality of capital, the greater the ability of the cooperative to manage risk and adversity, including unfavourable trends in the prices of the commodity(ies) the cooperative trades, inflation in countries where inflation is a macroeconomic problem, political change and turmoil, dissension among members, and other factors that cannot be accurately predicted but which lower returns to the cooperative.

Hypothesis D incorporates elements of A and B while introducing a new standard: the ability to manage risk, to withstand shocks from the economy, the market, the political and regulatory environment or from within.

c) Background on Fieldwork in Three Countries

Three countries were selected for research: Guatemala, India and Kenya. Each is a developing country with a history of cooperation extending for more than 50 years. Each has a large agricultural sector.

These countries were selected from a larger field. Ten countries in which FAO has cooperative projects were identified. Funding was located for three and research was undertaken on three continents in order to spread the work widely and to avoid concentrations that could bias results. In India the task was assigned to IRMA, which has an active cooperative research program and a capacity to undertake fieldwork, incorporating research specialists, trained enumerators and close ties with the cooperative sector. In the early 1990s IRMA was involved in path-breaking applications of modern theories of management to cooperative analysis.

In Kenya the cooperative superstructure was enlisted to undertake fieldwork. This consisted of the Kenya National Federation of Cooperatives, the Ministry of Cooperative Development and the Finnish Cooperative Development Centre Cooperative officers contributed to the field surveys.

Mr. Peter Marion, a consultant, was selected for the Guatemala study. His qualifications include his long involvement with cooperatives in that country, his knowledge of the major indigenous language as well as Spanish, and his experience as a finance professional. He was assisted in his study by the National Savings and Credit Cooperative Federation of Guatemala.

d) Research in Other Countries

COPAC believes that the only other wide-ranging research undertaken during the study period was commissioned by the World Bank. This work was undertaken to provide insights into how the Bank could interact most usefully with cooperatives. No specific model was expected to arise from this work, but those concerned felt that more information could be used broadly to make the Bank more effective in the many countries in which it supports projects. The Bank's study had four major topics: 1) the legal framework for cooperation and the relationships between cooperatives and their constituents, 2) specific key features in cooperative management and operations, 3) financial aspects of cooperatives and 4) cooperatives' social role. COPAC documents were shared with the Bank team responsible.

A workshop was held on 21-22 April 1994 to review findings. Sessions were focused on the conceptual framework, World Bank experience and other experience with cooperatives. Papers were presented by Bank staff and by consultants based in France and Québec, Canada. (Papers are listed in Annex B.) Considerable attention was devoted to efficiency. Data from France showed that different cooperatives have different strategies regarding the role of member financing and the level of payments to members per standard unit of produce delivered. In three groups of cereal cooperatives studied in 1981-84 those with the highest proportion of self-financing paid the highest prices to members and also were best able to cope with adversity over a longer period.[3]

2. Methodological Issues Facing this Research

The research described here faces methodological issues that, when defined or recognized, help to establish its usefulness. These observations are organized under six headings contained below in this section.

a) How Should Cooperative Business Performance Be Measured?

It is often maintained that conventional financial analysis as applied to for-profit enterprises is not appropriate for measuring the commercial performance of cooperatives. This particular problem seems to attract less attention now than in the past, and the attention directed toward this issue is more informed.[4] This change possibly responds to the commercial environment in which cooperatives operate. Markets for agricultural commodities are becoming more competitive in the commercial sense. Good commercial performance is required for survival as markets chip away at inefficiencies and as governments respond to the costs of inefficiencies. As subsidies diminish, commercial performance will command greater focus and traditional tools of financial analysis will be perceived as more relevant by cooperators.

However, performance measurement can be ambiguous for non-profit organizations. In this context, for example, good business performance may consist of the ability continually to attract subsidy from governments at home and abroad so that activities enjoyed by beneficiaries, i.e., members, staff, regulators and promoters, can continue. The debate on measuring cooperative business performance has traditionally focused on the difference between the surplus captured by the members individually and that retained by the cooperative as an entity distinct from its members. Of course, an important strand in cooperative thinking has been that the cooperative has no commercial existence separate from that of its members, that agricultural cooperatives are in fact extensions of members'

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[3] Grard Deshayes, "Agricultural Service and Credit Cooperatives." pp. 60-63, 1994. 4 rue Henri, 94000 Créteil, France.

[4] See, for example, Deshayes, op. cit. pp. 60 ff.

farms.[5]

This debate is complex. It may be a device that reduces the problem of the allocation of the surplus to a simple tug-of-war, not unlike that between trade unions and management, or possibly stockholders and management in joint stock companies. It can also point to new ways of viewing the debate. Financial analysis could treat all benefits as occurring at the level of members. This could provide important insights into member incentives to participate in cooperative democracy and to be loyal to their society.

Another approach rejects the concern that measurement of the surplus and its division is the relevant strategic focus. This perspective is based on the longer run issue of sustainability. Relative levels of performance can be judged by the survival of the cooperative over a long period, using a measure as disarmingly simple as sales turnover. If the surplus is insufficient or its allocation not realistic commercially, if members are not loyal, if risk is not managed, if management is not competent, turnover will decline over the long run. The relevance of this concern grows as markets become increasingly integrated and liberalized. The extent to which failures have undermined the cooperative promise also creates space for a simple, long-term measure of survival in a competitive world.

Subsidy again requires a qualification to any measure of sustainability. If purchase of subsidized fertilizer is possible only through a cooperative, the sustainability of the society is tied to its subsidy monopoly. If this is removed, members may be able to find superior alternative sources. The real test of sustainability is found only in an efficient, undistorted market. This research tries to take the long view because capital formation is a lengthy process best approached systematically and consistently. It opts for relatively simple measures, such as turnover as an indication of business growth, and uses proxies to evaluate the degree of member participation.

b) Is Capital Formation a Result or Cause?

Are capital formation, commercial performance and participation linked? If so, in which direction does causality flow? Is there a leading indicator among these variables? Is it possible to prioritize them for purposes of management strategy or assistance?

A priori and in the long run, capital formation is the result of good commercial performance which generates the surplus from which capital can be retained and which attracts additional resources. A strong capital position may attract members to a cooperative if it permits more efficient and dynamic provision of services. But capital may also encourage member participation that is "rent-seeking," an economic term for behaviour that does not contribute to the productivity. This may occur if members seek to capture the surplus for themselves individually rather than collectively for the business of the cooperative. Collective rent seeking may take the form of demanding higher payouts that are not consistent with the long run financial health of the cooperative. Individual rent seeking can lead to defaults by members on amounts due their cooperative, for example.

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[5] Ivan V. Emelianoff, Economic Theory of Cooperation. Ann Arbor, Michigan, USA: Edward Brothers, 1942.

These considerations suggest that member education for participation may be the key element in commercial success and survival, which would be consistent with traditional cooperative principles and practice. Without participation, there can be no cooperation. However, the nature of participation is critical. Commercial success and capital formation appear to require a relatively long-term perspective that would encourage members to leave funds with their society. This can occur only when members do not extract the greatest or most prompt possible payout or demand the lowest possible prices, or even impossible prices, for the goods they purchase from their cooperative. This question is central to cooperative sustainability.

The research design was not specific on the direction of causality. Hypotheses were based on the proposition that these three variables are related, although it was hoped that insights into cooperative capital formation would lead to new perspectives on how cooperative development activities might be designed.

The research design addresses in a circular way the possibility that capital formation may be a precondition for rather than a result of successful commercial performance. The former would apply when a new cooperative venture is established, requiring the injection of new capital. A venture that is undercapitalized could have more difficulty becoming competitive than one that is adequately capitalized. The circularity occurs in the long run, such as the ten-year research frame, as increasing capital is required for growth and to manage shocks that occur infrequently. "Source of Capital" vs. "Terms and Conditions of Capital" as an Influence on Cooperative Business Performance

The research design proposes that capital be weighted according to its provenance. It assumes that source is the basis for quality, that funds from different sources embody different levels of commitment and confidence in the cooperative. This in turn assumes that commitment and confidence are variables to be optimized, requiring a high degree of both for commercial survival and member participation.

Could the same or more powerful insights be gained simply by classifying cooperative funds according to their terms and conditions, ignoring their source? In other words, could a portfolio approach be more instructive than an institutional approach? Key terms and conditions would include interest rates, quantitative bounds set by loan sizes and credit or borrowing limits, terms to maturity, flexibility and legal standards of care exercised by the creditor when loan contracts are not fully honoured, and transaction costs arising from the documentation, reporting and other measures required to maintain a relationship with a creditor. In certain cases it could be difficult to determine exact terms and conditions because some can become known only when distress or failure occurs. For example, what enforcement differences would distinguish commercial bank credit from funds advanced by a cooperative bank or bank for cooperatives when a borrowing cooperative faces difficulties in behaving as promised in loan contracts?

The research design assumes that sources and terms and conditions are highly correlated: insiders have interests and incentives different from those of outsiders, promoters will behave differently from creditors, and commercial sources will have funding and investment standards different from those of governments or donors.

There are clearly merits to the terms and conditions approach because it transcends institutional biases. But it was never considered or brought up in research design, possibly because cooperative issues and promotion are so frequently framed in institutional terms.

c) Sampling Validity

The major sampling challenge in this research is in identifying similar cooperatives. Large classifications such as diary cooperatives and coffee cooperatives are used in the Kenyan study, for example. Members were selected for interviews on a random basis from membership rolls. It was difficult in all cases to find societies for which ten years of accounting records were readily available on a reasonably consistent basis. This criterion surely biases the sample in favour of surviving societies and those having a relatively high standard of accounting performance.

The study attempted to use alternative means of obtaining information and insights, primarily through case studies as open-ended enquiries. The results of this research cannot be fully regarded as statistically rigorous.

d) Is Gender Relevant to Cooperative Capital Formation?

Experiences with microenterprise finance strongly suggest that in finance women behave differently from men. Grameen Bank, for example, began with approximately equal numbers of men and women members. As the Bank grew the mix of services it provided and the delivery mechanism it used attracted incredibly large numbers of women and many fewer men. The proportion of members who are women now exceeds 90%. It is very possible that gender is relevant to cooperative capital formation. However, this variable was not included in research design and was not explored.

3. Review of Research Findings

This review and the following synthesis section deal with research results. Because of their different approaches, the distribution of information from each of the studies varies in these two sections, while hopefully being balanced overall.

a) Guatemala

The Guatemala study compares and contrasts two agricultural service cooperatives, "Petrol" and "Export," over a period of good economic growth. One determinant of this selection was a difficult environment during the 1980s that led to the failure of many societies, reducing the number that would have good financial data for a ten-year period. These are clearly not otherwise similar cooperatives, but their completely different business strategies provide powerful insights into cooperative finance. -

The markets in which these two societies operate are relatively free and competitive. This situation requires good management for survival and tends to lead to different strategic responses by different cooperatives. Cooperative legislation is relatively favourable and supervision by cooperative authorities does not take the form of micromanagement.

Both cooperatives accumulated unallocated surpluses, creating a large divergence between the price of a share and book value per member. The study concluded that this creates an incentive to limit entry and to increase non-member patronage. Both societies benefited from non-member patronage, paid no dividends on shares or interest on allocated surpluses, and increased their active membership slowly or not at all. Share growth was slow as a result. The number of non-member users increased more rapidly than the number of members. Guatemalan law requires that surpluses from transactions with non-members be allocated to legal reserves (institutional capital) rather than distributed to members. The similarity ends here. Petrol was founded in 1969 by 36 members. It operates a service station and an agricultural input supply store that sell petrol (gasoline) and lubricants, animal feed and health supplies, chemical fertilizer and other inputs. Petrol rents out a tractor for custom service. It is located in a state capital surrounded by a sparsely populated area of relatively large farms. Members may take cash loans and purchase on credit from Petrol, while non-members must pay cash. Patronage refunds, based on the proportional share of sales to members, are retained for two years before payment in cash.

Petrol has had losses that suggest low member control. The first was from participation in a tomato paste factory with several other cooperatives in collaboration with the donor-funded National Finance Corporation. The plant went bankrupt in 1987, costing Petrol more than US$ 72,000.[6] Second, delinquencies amounting to 38% of outstanding loans, or 7% of total assets, were concentrated in one member's account. Negotiations in 1990 led to rescheduling. Finally, in 1991 $18,900 was lost through defalcation and the general manager resigned. Petrol has reacted to a limited market and bad experience by being cautious, building reserves, minimizing borrowing and concentrating on efficient management of its core activities rather than by expanding its relatively small market share of the goods and services it provides. Total sales varied from $469,000 to $695,000 over the period with no discernible trend; profits varied from $9,000 to $33,000. Patronage per member was $2,100. In 1989 it raised its minimum share to about $200, reportedly to exclude poorer potential members. Introduction of the tractor service in 1993, funded by a term loan, was accompanied by the resignation of the entire board of directors.

Petrol has become financially very strong, shedding debt. By 1994 90% of its assets were member-funded, 84% by equity and 6% by debt. Legal reserves amounted to 85% of total assets. However, its inflation-adjusted equity was declining about 1% per year as patronage refunds outstripped annual profits. While legal reserves increased by almost $70,000 over this period, due in part to profits on non-member transactions, retained earnings were virtually depleted by a decline of almost $95,000. Average shareholding per member was $169 book value per member, fully adjusted for bad debts and market value of land owned amounted to $3,818. Only three borrowing members were in arrears. Delinquencies amounted to about 3% of total assets and were falling. From 1990 to 1994 the number of members fell from 126 to 109 out of a growing local population exceeding 16,000. Petrol is portrayed as a buying club with no signs of a dynamic future.

Export began as a peasant association in 1967. It markets snow peas and vegetables and sells agricultural inputs. It built a plant in 1992 that has washing, packing and cooling facilities.

[6] Current US dollars are used in the study to adjust for devaluation of the Quetzal and for international comparison. Data are also given in current Quetzales.

Its members are poor, small farmers who work their own plots in a densely populated rural area. Export has changed its legal status, product or service lines and commercial focus several times in response to evolving opportunities.

Its first export sale occurred in 1989 and volume expanded rapidly through 1993. A large decline occurred in 1994 as competition from other Guatemalan producers led to falling prices and rising quality standards and because of discoveries of pesticide residues in Guatemalan shipments to the US. Yet, patronage per member approximated $1,300, a material sum to members' households.

Export has borrowed heavily to expand its trading volume by increasing the number of its suppliers by offering production advances, credit sales and commercially competitive operations. Prices and credit in the form of interest-free 90-day loans against a promise to deliver produce, are identical for members and non-members. Sources of funds include member and supplier credit, interest-bearing loans from members, advances from produce brokers, a commercial bank line of credit, a subsidized development bank loan and unallocated surpluses. Share capital is insignificant. The ratio of member funds to non-member funds declined from 7.5:1 in 1989 to 0.5:1 in 1994.

Export's board has decided that while a ten-year development bank loan is outstanding, all surpluses will be retained. This has improved the quality of its capital. Total assets grew from $81,000 to $454,000. Total equity increased from $26,000 to $88,000, and virtually all of this increment arises from additions to retained earnings. Average shareholding per member in 1994 was $7 while book value per member was $251 (before adjustment for possible bad debt losses).

Export's strategy of using credit to attract clients risks bad debt losses. In 1989 there were 83 loans in arrears amounting to $3,000, equal to 10% of amounts outstanding. In 1994 there were arrears of $38,000 on 243 loans amounting to 31% of total outstandings. Membership increased from 227 to 350 while active members increased only from 195 to 209. Non-member users increased from 28 to 154. Export had grown but is financially weak, vulnerable to bad debt losses from loans to growers who could deliver to other buyers in a competitive market.

b) Kenya

The Kenya study[7] reviews the finances of 30 coffee and milk producers' primary societies in order to evaluate capital formation. From this field seven "otherwise similar societies" were selected for case studies to explore capital formation, turnover and member control and participation, and 94 members were interviewed.

Cooperatives are important economically in Kenya, including 700,000 rural households, and about two million wage earners who belong to savings and credit societies. The Cooperative

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[7] Kenya National Federation of Cooperatives, Ministry of Cooperative Development and Finnish Cooperative Development Centre, "Successful Capital Formation in Kenya Agricultural Producers' Cooperatives." A research report prepared for the Food and Agriculture Organization of the United Nations. June 1995.

Bank is Kenya's third largest bank. Cooperation in Kenya has extensive government involvement, which the study claims has diminished incentives for active member control. Cooperatives have generally operated in markets that are controlled through government-approved monopolies and nonmarket pricing arrangements. Cooperation has been viewed as a means of advancing the interests of small producers as new markets have been opened to them since the late 1950s, just before independence, and as new farming technologies have been introduced and taken up.

Coffee societies collect coffee from their members and process it into parchment for further processing by the Kenya Planters Cooperative Union. Smallholder growers produce about 65% of coffee exports and are required by law to belong to primary coffee societies, of which there were 243 in 1993. Coffee processing factories, called pulperies, may be operated only by cooperative coffee societies or by farms of more than 10 acres. Coffee society membership varies widely, from 5,000 to 20,000, and many own more than one factory. The Ministry of Cooperatives directs that the expenses of each coffee society should not consume more than 20% of the value of the crop and that members should receive at least 80% of the value of their harvest. The payment system is complex and not always efficient.

Milk production in Kenya is virtually entirely a smallholder activity. About half of total output is consumed on the farm and half is marketed. Producers' cooperatives handle about 79% of marketed milk, which is sold locally as raw milk or delivered to Kenya Cooperative Creameries (KCC) for processing. Recent liberalization of the market has increased producer prices as well as competition, putting pressure on primary societies. Private processors now compete with KCC. There are more than 200 registered dairy societies. Some multipurpose societies have milk collection as their principal activity, and an estimated 192 primary societies are "dairy" societies, with total membership exceeding 200,000. Dairy societies have from 100 to 3,000 members. Their main investment is in vehicles used to collect and market raw milk. Cooperation in Kenya remains heavily regulated and micro-managed. Ministry regulations require that 80% of the value of milk collected be paid to members, limiting society expenses. This rule, regulated prices and KCC inefficiencies have contributed to pushing half of the milk societies into dormancy and liquidation. Clearly, this rule works against capital formation. Cooperative law in Kenya requires written government approval for any bonus or dividend; that 25% of net surplus be transferred to a statutory reserve; that the dividend rate cannot exceed 10% per annum; that all surpluses due to members be allocated, although a society can postpone cash payment by issuing bonus certificates redeemable from a revolving fund; and that a 35% tax be paid on a base consisting of total income less qualifying expenses and distributions. Taxation has led to increases in payouts for produce. Municipalities also tax produce handled by each local society.

The study found from the data for the 30 societies that turnover is not related to capital formation. It also found that there are numerous influences working in various directions on capital, growth and member participation and control. However, this group of cooperatives' capital had grown over the ten-year period. Contributions by members through deductions from crop delivery proceeds that exceeded losses in the societies' appropriation account, which is a residual net worth account credited after transfers to indivisible reserves. The precise nature of and reason for building institutional capital while declaring losses is not fully explained, but may reflect tax-avoidance. Surpluses are usually adjusted by auditors to ensure that no taxes have to be paid. It also may reflect government supervision, emphasizing non-refundable or institutional capital as a sounder basis than refundable member capital.

A result is that the accumulated reserves per active member greatly exceed the nominal value of members' shares. Interviews with members of coffee societies indicated that they would prefer that funds be credited to their share accounts, which are redeemable when a member leaves the society. However, the researchers suggest that members view the benefits of a proposed investment as outweighing the method of raising funds or the refund of contributions.

Increases in member funds were larger than increases in long-term borrowing. The coffee societies had borrowed for their factories, encouraged by a donor-supported project, while the dairy societies had little term debt. Capital tended to improve in relation to average annual turnover, but by this measure only six of the nine coffee societies were reasonably well capitalized: 12 of the 21 diary societies had failed to increase their capital. Members' main contributions to working capital were through increases in their societies' amounts payable to members.

The long-term institutional capital of the coffee societies surveyed increased (from 18% to 26% of total capital) while short-term member capital decreased (from 50% to 35%). At the same time non-member capital increased from 32% to 39%. In the dairy societies institutional and member capital increased from 47% to 70%, almost entirely through increases in members' short-term financing in the form of increases in payments due to members, with a corresponding decrease in non-member capital (53% to 30%). Coffee societies became more dependent on long-term financing in relation to short-term funds (41:59 in year 1, 51:49 in year 10), while dairy societies lessened their dependence on term funds (45:55 vs. 36:64).

Case studies of seven societies, selected according to product, size and either good or poor growth and capital formation, also failed to identify clear links between capital, growth, and participation and control. The four dairy and three coffee societies largely conformed to the trends observed in the sample of 30. Tests of study hypotheses A (the level of member capital), B (the quality of capital) and C (growth of capital) demonstrate that many different combinations of growth, capital formation and member participation and control coexist. Where relationships corresponded to the statement of the hypotheses, the reasons for this correspondence do not appear directly related to the variable being tested.

Further testing used replication logic, which tests for expected results in positive cases (literal replication) and contrary results in negative cases (theoretical replication). The seven societies were the best and the worst of the larger set of 30, permitting this application. Fairly clear literal replication was obtained for only two societies.

Hypothesis D (risk) was not tested because the researchers found no measurable indicators of the ability to withstand risk and adversity. They point out that capitalization models or standards are commonly used to predict business failure and that financing is not the principal cause of cooperative bankruptcy or liquidation. The primary cause is lack of patronage, and in Kenya government intervention in or take-overs of the management of failing societies are common.

The results of interviews conducted with members of the seven societies were distilled into a satisfaction index. This index provided stronger associations with capital than any of the study hypothesis. Satisfaction and growth in member capital appeared positively related.

c) India

Research on cooperative capitalization in India was undertaken in Andhra Pradesh (AP), centring on 32 large multipurpose societies (multi-coops), all of which provide agricultural credit.[8] Cooperation in India has had almost a century of development and has been closely related to political processes and government objectives throughout its history. Reflecting this, regulations abound. Very large segments of the rural population have a stake in cooperation and in the subsidies it has often been called upon to deliver. There are 4,600 credit societies in AP; their average membership exceeds 1,900. Average membership of sample coops was 3,057. Eleven of the sample are "paddy coops," owning functioning rice mills, selected from a population of 45 societies with rice mills in AP. Twenty-five sampled societies also sold consumer goods, mostly as agents of the Public Distribution System for "essential commodities." Many sold fertilizer. Their range of activities is based to some extent on links: agricultural loans can be repaid in paddy; a portion of agricultural credit must be issued in the form of fertilizer. The sample was selected purposefully to include 19 "good" coops with above-average performance and 19 poorly performing "bad" ones. Thirty sample societies could provide ten years of usable financial data, and these provide the basis for analyses of financial performance. The other two were included in other aspects of the study. A large-scale survey was used to test relationships among member funds, control, patronage, cooperative performance and member satisfaction, stated in the order of the hypothesized relationship. Financing strategies are explored through case studies and unstructured interviews with 923 randomly selected members. Cooperative law and regulations applicable to multi-coops in AP specify that members can borrow up to ten times their share capital, that at least 15% of declared surplus be paid as dividends, and that cash equal to 25% of each year's net surplus be placed in a reserve fund kept with an apex cooperative. Many societies require that members maintain non-withdrawable deposit accounts that are credited with 5% of their loan receipts and all their dividends and patronage refunds. Regulations governing these deposits led many members to withdraw periodically from membership so that they could access these funds. Regulations were subsequently changed to require the redeposit of these funds when a member rejoins, which is permitted only once every five years.

Participation in governance is low: fewer than 12% of members of sample societies attended annual general meetings, which were generally held on schedule, while extraordinary general meetings attracted fewer than 4%, reflecting in part the large size and broad geographical coverage of many societies.

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[8] Rajesh Agarwal, K.V. Raju, K. Prathap Reddy, R. Srinivasan and M.S. Sriram, "Successful Capital Formation Strategies for Agricultural Cooperatives in India." Institute of Rural Management, Anand (IRMA). September 1994.

Election frequency is determined by the AP state government -- only two were called during the period 1981-1993, and only 75% of sample societies held contested elections. Voting turn-out was about 50%.

4. Synthesis of Global Research Findings

The three COPAC studies of cooperative capital varied in fundamental respects. The Guatemala study looked in considerable depth at two greatly different, relatively small cooperatives that operated quite freely commercially within the bounds of cooperative law and regulation. The Kenya review examined a number of different sized dairy and coffee societies in a system managed in detail by the Ministry of Cooperative Development, supported by foreign advisors. The sample structure used by the India study had many similarities with the Kenyan one, but more abstract analytical techniques were applied. The Indian cooperatives were large and the system is older and more politicized than the other two, while the level of official control is relatively high.

This diversity gives a multi-faceted picture of cooperation and its financial aspects. Furthermore, the findings vary significantly. In general, the India study found the most evidence that affirmed the research hypotheses while the Kenyan research found no conclusive evidence to support the hypotheses. This contradiction is not necessarily a disqualifying feature of the social sciences because reality is also complex. It may also reflect the context of cooperation: in the more market-based Indian case the hypotheses tend to apply, while in the more heavily regulated Kenyan situation their validity is restricted.

What can be made of the results? Are higher levels of capital formation associated with growth in patronage and membership, with greater member control and participation? Do they stimulate growth, member control and participation? Is the quality of cooperative capital associated with accumulation and member funding and control?

a) Validity of the Main Hypotheses

Hypothesis A. The greater the proportion of member-owned funds to term debt and evergreen (permanent) working capital loans[9] from non-member sources used by otherwise similar cooperatives, the greater the member control and the greater the growth rate of the cooperative.

Statistical correlations and multiple regression of Indian data supplied by 923 individual interviewees indicate that relationships between member funding and clusters of member

[9] Evergreen working capital loans are never paid off during the borrower's relationship with the banker. They usually continually revolve with a short-term asset conversion cycle that varies little throughout the year (i.e., payables to suppliers, inventories of raw materials, work-in-progress and finished goods, receivables from customers, cash) as funds are repaid and new funds are advanced against specific short-term assets or against a predetermined working capital borrowing limit. These loans contrast with seasonal loans that finance a discrete or discontinuous cycle such as found in agriculture, where borrowing begins in preparation for planting and is repaid in full following the disposition of the harvest.

control and patronage variables are positive and significant, although not always very strong. Member funding also correlates positively with patronage and satisfaction. These findings are consistent with and support the possibility that member funding leads to member control which encourages usage and produces satisfaction. Curiously, a cluster of member control variables correlated negatively with member satisfaction, possibly signifying that control rises when members are not satisfied.

Analysis of financial data for the 30 Indian cooperatives also generally confirms the research hypotheses. Good coops are more profitable and employ much more capital than bad ones, and member funds constitute a higher proportion of their capital. Good coops tend to grow faster than bad ones. This implies that greater profits permit greater retentions and attract more funds.

The Guatemala study does not compare otherwise similar cooperatives, and gives limited support to this hypothesis, finding a positive relationship only between the proportion of member funding and revenue. It concludes that member funding is important to assure financial strength, and that increases in member funding quality and quantity are unlikely without growth and profitability. Growth in member funds is associated with asset growth. This is consistent with Hypothesis A and suggests an alternative direction of causality or association.

Member control and participation are held to be a function of the relative importance of payments to or from the cooperative in the members' overall financial situations. Export provides a relatively important portion of members' incomes, and their involvement is high. Petrol is relatively unimportant to members' finances and has low member control and participation. Export had relatively little member funding compared to Petrol, which is contrary to the hypothesis.

This view of salience is echoed in the Indian study, which also notes that paddy coops have more member capital but lower member satisfaction than nonpaddy societies. The researchers suggest that lower satisfaction may be related to the importance of the service to the member and also to education programs conducted by paddy societies. Both factors can create more discerning members, raising expectations and performance standards.

Tests of Hypothesis A by researchers in Kenya did not provide conclusive evidence of any positive correlation between growth, capital or control. Kenyan cooperatives have successfully increased their capital through deductions from payouts to members. Capital is increased to finance investment, from which members expect enhanced income and service, which implies growth. The study indicates that an improved capital position is not a major reason for the growth of a cooperative and that balance sheet indicators cannot be used as proxies for member control and participation.

The Kenya study concludes that patronage is the primary avenue of participation and control. The Indian study concurs, with the observation that while paddy coops have more member capital they tend to be unprofitable. This may indicate that service to members is a more important factor than profitability in attracting member patronage. Patronage, in turn, is generated by attractive prices, promptness of payments and service that is competitive with alternative suppliers or buyers.

The Kenya study posits that because efforts to secure patronage put pressure on prices, increases in turnover do not ensure a surplus or a better capital position. This conclusion may in part reflect the difficult environment in Kenya created by price controls and specification that 80% of the value of produce processed must be returned to members.

Growth in turnover in Kenya is held to be dependent on world prices for coffee and local prices for milk. The Guatemala study contends that short-term credit from cooperatives to growers or buyers is a wonderful device for boosting patronage, but in Kenya, where markets appear less competitive, the capital of marketing societies is not seen as a strong basis for attracting patronage. Capital for farm development, however, is suggested as a means of stimulating agricultural cooperation in Kenya.

Attractive investment proposals permit improvements in prices and service that attract capital. The Indian work notes the importance of visible or tangible assets. Members will be more willing to finance a new mill or building than simply to improve liquidity or capital.

To summarize: Hypothesis A is not strongly confirmed by the research. It appears most applicable to a sample of cooperatives operating under considerable indirect regulatory control but in an active market and, in a number of cases, under reasonably skilled management. Hypothesis A was not confirmed in the analysis of a sample of heavily and often directly controlled cooperatives in less competitive (or more monopolized) markets. In all cases patronage was seen as very important, as would be expected in a commercial activity, along with the degree of dependence on the cooperative as indicated by the proportion of members' income received through the cooperative, as would be expected in a democratically oriented activity. The Guatemala study suggests that the hypothesis may be meaningful only up to a point where healthy, dynamic cooperatives use non-member funds to leverage member funds and institutional capital. Such leverage permits greater strategic and competitive flexibility.

Hypothesis B. The higher the quality of capital in otherwise similar cooperatives, the greater the member control and the greater the growth of the cooperative.

The Kenya study found no conclusive evidence to affirm Hypothesis B. The Guatemala study found no statistically significant relationships between the proportion of weighted funds to nonweighted funds and the growth of assets, revenue or surplus. It concludes that improvements in the quality of funds are associated with greater liquidity, which enables a cooperative to buy for cash and sell on credit to create market power and member loyalty. It would clearly be easier and more appropriate to borrow relatively cheaper short-term funds for seasonal liquidity than to obtain term funds for this purpose.

The concept paper treats government funding as low quality because it requires no commitment on the part of members and may compromise control by the imposition of funders' agendas and by politicization. The Kenyan report states that direct government financing of cooperatives is negligible and that donor financing does not appear to have interfered directly with member control and participation. Subsidized loans to societies have assisted outreach and service.

Kenyan members interviewed were reported to have favourable views of government intervention and control, but the scope for nonsampling errors may be great here even though the interviewers, who were cooperative officers from other areas, were told not to reveal their occupation. The report views government management and controls, including the granting of monopolies, as providing uniformity and consistency that are highly positive features in making Kenyan cooperatives an important and successful economic force. Members were judged not to be in a position to control their societies effectively, except possibly in small societies as indicated by survey results. Government has substituted for member control.

The Kenya and Guatemala studies indirectly endorse the concept of quality weighting. They note the disadvantages of high levels of institutional capital, implicitly suggesting that the quality of this capital may be positive at certain levels where leverage or gearing is facilitated, but dysfunctional and hence of low quality where institutional capital creates a large wedge between member share value and book value.

To summarize: Except in the limited case where institutional capital is large, Hypothesis B is not confirmed by the studies. The quality of capital over the ranges studied does not appear to be a conclusive explanatory factor determining performance. One possible explanation may be that where nonmarket arrangements strongly determine cooperative capitalization the range of quality is relatively small, below thresholds of differences. Analysis is complicated by the subjectiveness of quality weightings of capital. Different view of quality are discussed in the next section.

Hypothesis C. The higher the growth of member-owned funds in otherwise similar cooperatives, the greater the member control and the greater the growth of the cooperative.

The Guatemala study finds that growth of weighted and unweighted member funds is positively related only to asset growth. The Kenyan work found no conclusive evidence to support Hypothesis C, but discovered that member satisfaction appears to be positively related to the development of member capital.

Several Kenyan diary societies have been revived by the donation of a vehicle by a foreign donor. A vehicle permits a society to make daily collections, which is a requirement for stimulating patronage in sparsely populated areas. A gift is clearly a subsidy, which would rank near the bottom of the quality of capital scale outlined in the concept paper. The Kenyan paper also stressed that patronage is the leading edge in cooperative development. At the same time, member control is not viewed by Kenyan cooperators and authorities as the basis of successful cooperation except possibly in the very long run.

To summarize: Observations broadly consistent with Hypothesis C are reported in the studies. The weakest element in the relationship proposed in the hypothesis seems to be member control, which is limited in Kenya and is expressed primarily through individuals' patronage decisions in each of the three cases.

Hypothesis D. The greater the quantity of member-owned funds in proportion to non-member funds, and the higher the quality of capital, the greater the ability of the cooperative to manage risk and adversity, including unfavourable trends in the prices of the commodity(ies) the cooperative trades, inflation in countries where inflation is a macroeconomic problem, political change and turmoil, dissension among members, and other factors that cannot be accurately predicted but which lower returns to the

cooperative.

The Guatemalan report finds no major correlation between measures of funding quality and commercial performance. It concludes that a high level and quality of member funding is one of several important variables required for commercial success. Petrol is viewed as vulnerable to stagnation and to members' efforts to somehow obtain the institutional capital created by having to credit profits from non-member transactions to unallocable reserves. These might be depleted through losses on member transactions, or members might voluntarily liquidate, sell or change the cooperative's legal form to obtain these funds.

Export, with growing and sound business opportunities and poor but active members, can finance much of its growth with high quality, high cost external debt from commercial sources and low quality member funds such as trade payables and borrowings. In doing so it faces pressures on earnings and liquidity. This creates vulnerability that can be diminished by increases in the amount of high quality, low cost, long term member funds. This would require a collective commitment to reduction of payouts for produce and to active participation and democratic control.

The Guatemala study concludes that a focus on profitability is important to survival, that profits require efficient use of assets, that asset quality is essential to preservation of capital and that borrowing is a useful means of financing. Non-member patronage should be encouraged, increasing the surplus and potentially the membership. Profits should be retained and allocated to members but not necessarily paid out. Allocation will diminish reluctance to accept new members. Dividends and interest should be paid on contributions in order to encourage member participation in the capital base.

The Kenyan researchers maintain that no data are available to test Hypothesis D. The ability of Kenyan cooperatives to weather risk and adversity is closely related to the large government presence. Failing societies are taken over by government-appointed managers. The study observes that even without any government control, however, it may be difficult for farmers to control complex activities, and government likewise cannot ensure good commercial performance. The researchers believe that government control will be reduced eventually and should be no more intrusive than it is for private companies. This would require lots of member education, training and involvement, and more transparency in management and financial reporting. Donor-funded loan programs can encourage investment and better management of societies, and the Cooperative Bank could become a more important monitor of cooperative performance.

To summarize: Hypothesis D was not explored in much statistical detail in the studies, precluding conclusions based on quantitative analysis.

b) Source and Terms and Conditions of Capital

The Indian report includes four case studies of multi-coops with extensive banking operations. Strategies used by these societies to mobilize funds can be represented by a continuum ranging from "mutual" to "bank." The former encourages members, through education, for example, to provide funds so that the society can offer superior services such as credit or paddy marketing. This requires a strong capacity for collective decision-making. The bank strategy uses interest rates, convenience and service to attract deposits. Societies using a bank approach often have distinct groups of "savers" and "borrowers." The mutual approach, requiring solidarity, may be more able to withstand short-term adversity. In the absence of deposit insurance the bank strategy tends to make members very vigilant. Control is exercised by individual decisions to withdraw deposits, making management highly accountable.

The Indian study indicates that the performance of member funds is determined by three properties: origin, permanence and return. Origin has three forms, in ascending order to quality: 1) capital subscribed in accordance with laws and regulations, such as limiting a member's borrowing to ten times his shareholding; 2) capital reflecting collective decisions regarding or having an impact on reserves, such as patronage refunds; 3) capital provided as the result of decisions by individual members who freely deposit funds. Permanence is governed by terms and conditions attached to different categories of funds, as is yield or return. However, these categories could not predict whether a coop would be good or bad.

c) Inter-Temporal Dynamics of Cooperative Capital Formation

The studies bring out two intertemporal dimensions of cooperative capital. The first is the paradox of institutional capital, by definition not allocated to members but held collectively. These funds can give cooperatives a tremendous competitive edge because they are "free" to the society, requiring no remuneration, while the equity of non-cooperative forms of enterprises is the most expensive type of capital because it requires remuneration and has implications for control. However, earned institutional capital has a cost to members when it is accumulated by deductions from payments to them.

Unallocated reserves are treated in the concept paper as the highest quality, non-withdrawable except in liquidation: the greater the volume of these funds the stronger the society. However, the studies note that building them up creates a wedge between members' average share subscription and the book value per member. Large wedges existed in the Guatemalan societies: 35:1 in Export and 24:1 for Petrol.

This disparity can have important negative implications for democratic control. The wedge creates value for members only, and members will seek to capture and protect this value by limiting membership growth or by encouraging non-member transactions. This is an invisible side of the control issue. In this sense the promise of cooperation as an inclusive means of creating, managing and sharing wealth will not be fully realized, even though the closed cooperative performs a useful economic service in the community. This goes against the principle of openness and a cooperative belief that it is wrong for one person to make a profit at the expense of another. Institutional capital may also lead to an accumulation of inactive members, but this is not explored in the studies.

Allocation of surpluses passes value to members in the form of increased shareholding, decreasing the wedge. This should encourage open membership because existing members would not lose value by admitting new members. Kenyan members interviewed would have preferred to see surpluses allocated because this would make their membership a good legacy for their children. More data would be needed to answer the how-much-is-enough question and to determine if this effect is related to the size of membership,

Intertemporal conflicts arising from institutional capital have long bothered cooperators on the grounds that reserves accumulated by past members provide a free ride to future members. This conflict could be solved by having almost no institutional capital, allocating everything possible to members and requiring each new member to contribute an amount equal to the average book value per member. This could work against openness where book value is large, as reflected in the use of high entrance requirements in the form of expensive shares to exclude potential applicants. A means of mitigating this is to spread payments over time.

The free rider potential is less of a threat when solidarity makes members willing to build institutional capital as a contribution to permanence and when new members will also willingly contribute to future members. The problem is also lessened when new members enable a cooperative to realize economies of scale and scope which arise when the marginal cost of new business to the cooperative is less than the marginal benefit it reaps from this patronage.

The second intertemporal insight is found in the India study. It uses considerations of the quality of capital to sketch four different financing trajectories for a new credit cooperative initially funded entirely by members. Trajectory 1 continues to rely on member funds through a mutual strategy, with average performance. Growth may be slow but robust, based on collective decisions to subscribe and patronize. Trajectory 2 involves a bank strategy with high reliance on external funding, but with good performance. Rapid growth occurs but with less member control. Trajectory 3 uses a bank strategy with little reliance on external funds but good performance. Growth is slow but member control is high. Trajectory 4 arises from high dependence on external funds and, "The most likely outcome is poor performance. More share capital is provided by members who wish to borrow more, but other forms of member funding remain absent. This, sadly, is what most primary coops in India follow."

d) Capital Structures of Different Types of Agricultural Cooperatives

Each type of economic activity has its own "financial fingerprint."[10] This is a fundamental building block in corporate finance and banking, although it has often been ignored in development finance in favour of formulas such as 80% debt and 20% equity for all deals across the board.

The studies confirm distinct fingerprints consisting of different proportions of fixed assets to working capital and correspondingly different types of financing by origin, permanence and return. Access to non-member finance also influences structure, as do collective decisions regarding funding and risk management. For example, sample paddy coops in India relied on member funds more than nonpaddy cooperatives. This reflects the capital requirements of rice mills and availability of government refinancing of the credit operations that dominate sample nonpaddy cooperatives.

Liquidity is stressed in the Guatemala study as an important means of attracting patronage through the issue of credit to members and others. The Indian report notes the importance of

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[10] Reazul Islam, J.D. Von Pischke and J.M. de Waard, eds., Small Firms Informally Financed: Studies from Bangladesh. Dhaka: University Press Ltd., 1995.

liquidity in banking operations where depositors are likely to lose confidence if the cooperative seems to be facing

problems. An issue not dealt with in the studies is seasonality in agricultural cooperatives, which makes short-term management of funds tremendously important to successful business operations.

e) Optimal Mixes of Capital and Criteria for Optimality

Implicit in the concept of the quality hierarchy of capital is an optimum weighting and mix that would reconcile the objectives of commercial performance and of achieving the larger cooperative promise of participation, member empowerment and democratic control. The research hypotheses did not directly or strongly orient the studies toward this issue.

The studies were intended to explore member capital and its relation to growth, control and participation, and ability to withstand risk. Conclusive relationships in these research areas would of course provide input for determining capitalization strategies. The concept paper proposes the subjective weighting of capital by its presumed quality, in the hope that analyses incorporating weighting would provide further insights into the functions and implications of cooperative capital.

The Kenyan researchers suggest that weighting of capital by source appears to add little to the analysis. They also note that quality weighting essentially mirrors a maturity ranking. The Guatemala study uses weighted and unweighted ratios. The introduction of weights does not appear to add much analytical value. This study also used ratios of weighted to unweighted values in correlation analysis, which appears to be a useful means of summarizing quality differences. Member funds were weighted by source and by maturity, and non-member funds by source and cost. However, these two studies used different rankings:

Kenya - Member Capital

Entrance fees, nonrefundable reserves, appropriation account	1.0
Share capital and refundable reserves	0.7
Deposits by members	0.3
Deferred payments to members	0.1

Kenya - Non-member Capital

Long- and medium-term loans	0.5
Short-term loans	0.3
Creditors and overdrafts	0.3
Grants	0.1

Guatemala - Member Funds

Legal reserves	1.0
Unallocated retained earnings	0.8
Shares	0.6
Borrowings from members	0.4

Accounts payable to members	0.2

Guatemala - Non-member Funds

Notes payable, commercial sources, at market cost	1.0
Accounts payable, commercial sources, below market	1.2
Borrowings, non commercial source, low cost	1.4
Miscellaneous: accruals, noncommercial, no cost	1.6
Capital donations	1.8

Lack of agreement about the quality of member funds indicates differing financial strategies devised in different markets, and possibly the novelty of applying quality weights. From this perspective, weights provide illumination.

While the India study did not assign numerical weights to funds of different quality, it found that different categories of member funds had different strengths of association with coop performance. Based on origin, permanence and return, the Indian study ranks the quality of funds as: "net individually volunteered long-term funds, collectively volunteered long-term funds, and individually volunteered short-term funds," and ranked types of funds in the following descending order of quality: nonwithdrawable reserves and nonwithdrawable deposits, withdrawable deposits, withdrawable reserves, member shares, and short-term funds.

f) Role of External Capital

External capital, defined arbitrarily here to exclude retained surpluses from non-member transactions, was noted in each of the studies. In the Guatemalan cases a loan from a donor-funded lending agency had supported an investment that eventually created a large loss for Petrol, while similar funds were aggressively used by Export to leverage its operations. This study is not broad enough to permit generalizations beyond the realization that there is a range of outcomes from access to external funds.

In Kenya certain coffee societies used funds from a World Bank-supported project to upgrade their coffee factories, while several dairy societies had received donor grants in the form of vehicles that greatly assisted their business. Loans and subsidies implicit in donor funding clearly have a visible short-run impact, but the studies do not demonstrate their longer-run impacts -- whether and to what degree or in which circumstances these funds permit or enable fulfilment of the larger promise of cooperation.

In India primary credit societies have access to refinancing from official sources. One of the societies dealt with in a case study had avoided refinancing for reasons of economy, but was forced as a competitive measure to refinance after official crop insurance was tacked on to refinanced agricultural loans. From this melange no clear pattern emerges. It does appear, as a speculation, that non-member controls are a larger factor than non-member capital in influencing the performance of cooperation.

g) Cooperative Principles and Capital Formation

The studies offer few conclusive implications for cooperative principles. Probably the most interesting finding, stated in a way that often has not been sufficiently stressed, is the perverse incentives that may arise from too much institutional capital. This possibility supports the principle of providing patronage refunds out of allocation of the surplus. Clearly there is a trade-off between cost reduction to the cooperative and these perverse incentives, and it would be useful to know where these curves cross. Could allocations payable in several years, creating a slowly rotating capital base, diminish both cost and perverse incentives? If so, to what extent, at what interest rates over what time period in different types of cooperatives?

Reliance on member funding appears to provide a cooperative with relatively inexpensive funds. This is consistent with the principle of limited returns to capital but also implies that slow growth is the natural state for cooperatives that are not viewed as creditworthy in the commercial market, that shun profitable non-member transactions or that seek to remain relatively independent while building high levels of solidarity. he Indian researchers strongly stress transparency in accounting and periodic external auditing. These are especially crucial when coops offer deposit-taking services and a bank strategy is followed. However, it also can contribute to the strong sense of solidarity required for the mutual strategy. Transparency seems most closely related to the principle of democratic control, which presumes an informed membership and a concern for social equity.

5. Successful Capital Formation Strategies for Agricultural Cooperatives: Outstanding Issues and Guidelines for Action

The diverse picture that emerges from the three COPAC studies indicates different approaches to ensuring sufficient finance to sustain agricultural cooperatives. The best approach or even a feasible approach toward this objective appears to be shaped greatly by the cooperative context. The studies give sustainability a special emphasis by using an analytical time frame of ten years. Finding societies with ten years of meaningful financial data is not always easy, testifying to the challenges of sustainability.

The most commercially successful cooperatives identified in case studies and through statistical analysis seem to place patronage first. Without patronage there is no possibility of sustainability. Strategies to attract patronage differ with market conditions. In the relatively free and competitive markets of Guatemala a cooperative's ability to finance its suppliers and buyers is essential when members are poor and their income received through their cooperative is relatively substantial. The ability to obtain and manage fixed assets to serve members is also important. A society needs a capital base over the long run (but not so long as to be dismissed as irrelevant) to manage inevitable reverses. Patronage, solidarity and good management with a vision are important for accumulating capital if the cooperative is sufficiently efficient to be competitive. Member control can be effective. In traditional markets for milk and coffee in Kenya, both of which are heavily regulated by the state and under which cooperatives have enjoyed monopolies, market development through acquisition of fixed assets appears to be the major concern. These assets include vehicles for milk collection and factories for coffee processing. Having assets in good repair and embodying efficient, appropriate technology are essential to serving members, who as very small scale operators often have had little choice in these markets.

Cooperative capital formation in this situation will depend first on prices, which are likely to be determined in world trade for coffee or fixed by apex bodies or state monopolies for agricultural produce sold locally. The former are likely to be erratic while the latter are likely to be below free market prices in poor countries. Each limits scope for capitalization.

Capital formation will also depend on cooperative policies and flexibility in their design and implementation. Effective policies will depend increasingly on efficient operations that create room for choice. Now that agricultural markets are being liberalized, financing of producers will probably become more important and greater demands will be placed on efficiency.

As long as cooperatives deal in heavily regulated markets the state will have an incentive to ensure that cooperatives have some semblance of commercial operation so that flows of exports or basic products for which cooperatives are responsible will be maintained. This in turn creates a large role for civil servants as managers and monitors, for foreign assistance and advisors, and possibly for financial bail-outs or assistance, which may take the form of credit projects. Member control is likely to be weak, cosmetic and politicized. This will be defended by citing factors such as member illiteracy or rusticity, complexity of markets and technical processes, and member satisfaction with the status quo.

The Indian situation in Andhra Pradesh bears some of the features of state control and politicization, but in a relatively rich institutional context of competitive markets, local leaders with a vision, and a capacity for "get around" or creative responses. This context produces a variety of strategies, from "mutual" based on solidarity and appeals to cooperative principles to "bank" based on aggressive competitive excellence. Member control is most strongly exercised through patronage, reinforcing the emphasis on patronage first. Audits are taken seriously as instruments to promote patronage and legitimize the "bank" strategy. Politicization helps ensure activism in which members may get involved if they wish. However, a large proportion of members, reasonably satisfied with services or indifferent to prospects for change, choose not to get involved in the exercise of cooperative democracy while constituting a reserve army of activists.

a) Strategy Issues and Questions

New issues and questions in cooperative finance arise in response to change in markets, in the legal framework, in the regulatory regime, in the availability of development assistance and in views of how the promise of cooperation can be realized. The role of capital is likely to be taken more seriously where competition increases as markets are liberalized and as incomes increase. It will also be of greater importance because leaders' time horizons may lengthen as more options open and as sustainability becomes of greater concern. More ways of financing will be explored and embraced within larger strategies of increasing patronage. Time will be spent, and hopefully wasted, by the least creative in attempting to maintain or revert to old habits associated with state-granted monopoly and dependency.

Opportunities to increase member financing in liberalized, competitive markets are suggested by techniques used in developed countries. Many are likely to be copied or adapted in developing country cooperation. These will permit an enlarged capital base using allocations to members promising future payouts in cash. Opportunities to increase non-member financing will blossom. They will depend greatly on the success of member financing and on definition of property rights because commercial and cooperative apex lenders will increasingly rely on commercial measures of debt capacity. Member control will continue to fill the space permitted by regulatory limitations and within that to become intense in response to dissatisfaction or to an enthusiasm created by strong leadership, the smell of success and identification with cooperative principles.

Questions to be answered include: What financing mechanisms will enable cooperatives to become more effective in more competitive markets? How can non-member funding be obtained in ways consistent with the objectives of cooperation? Will cooperative finance increasingly resemble corporate finance, or is the larger promise of cooperation still meaningful where competition creates efficiency, expands outreach and destroys monopolistic practices? What type of member education is appropriate where cooperative finance is sophisticated and complex? How can cooperative education communicate the social benefits of member control and of competitive markets?

b) Guidelines for Financing Sustainable Agricultural Cooperative Development

Changes in cooperative financing that will contribute to sustainability will be accompanied by constructive opportunities at different levels for different parties. These parties include donors providing technical and financial assistance, governments and cooperative managers and leaders. Because of factors having relatively little to do with cooperation, donors are increasingly likely to be of less importance and utility to cooperation in many countries. The assistance that remains is likely to stress commercial competitiveness because the costs of protection and monopolies are of increasing concern. This will require changes in the relationship between the state and cooperation, generally permitting greater powers to members and cooperative bodies, and greater willingness to abandon situations offering only dim prospects. Donors are in a position to contribute based on their own national or technical experiences with cooperation that are oriented toward competitive excellence rather than toward social policy. Cooperative managers and leaders are likely to become increasingly technical and commercial in orientation and, while not lacking in vision, less political and charismatic.

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Annex A

The Quality of Cooperative Capital excerpted from "Capital Formation and Performance: Issues for Cooperative Promotion" presented by J.D. Von Pischke at the COPAC Open Forum, 2-3 March 1993

Member capital

The quality of cooperative capital is defined here by the intensity of member commitment demanded by the terms and conditions attached to the various forms of capital used by cooperatives. The strongest or largest commitment is to provide capital that is non-refundable to members except as a residual in the event of liquidation. Unallocated surpluses, or retained earnings, are the form of cooperative capital that meets this criterion and are therefore designated as the highest quality capital. Non-refundable membership fees that are taken directly to capital and not treated as income are also in this highest quality category. This form of member capital is owned collectively, and therefore represents a larger sacrifice and commitment than provision of funds that the member can reclaim as an individual owner.

The next level of commitment is members' funds that are refundable only when a member terminates, withdrawing from the cooperative. Cooperative membership or share capital has this characteristic and is the second highest quality capital. Reserves held for specific purposes that have slow turnover, i.e., relatively long lives, would be the next highest quality of capital. (Valuation reserves for bad debts should not be included in capital because these sums are assumed to be already lost.)

Members may also provide funds temporarily to their cooperatives in the form of deposits, through credit sales, and through patronage refunds or other allocations of the surplus that are not paid immediately in cash. These are the next highest quality of cooperative capital. Each source within this category could be ranked according to its maturity, that is, the length of time for which each type of funds is provided. The longer the term, the greater the member commitment and hence the higher the quality.

It is important to note that emphasis on member capital is not fundamentally at odds with the principle of open membership, which requires that the amount of initial investment required for membership is relatively low, to ensure that large numbers of people are not excluded. (Some cooperatives permit new members to make a "down payment" on a share, with the balance built up over time from patronage refunds.) The nature of cooperative capital implies that retained surpluses are the most attractive potential source of member capital, because retained surpluses have no explicit cost to the cooperative.

There is some concern that retained surpluses are inequitable because the value of a member's participation that is retained is not refunded when the member terminates. Off-setting this is the possibility that new members may help cooperatives achieve economies of scope and scale, in effect benefiting existing members. These concerns reinforce the concern for efficiency and commercial success: feelings of inequity are least likely to become divisive when members receive and pay attractive prices and when their cooperative provides a broader array of services that are continually upgraded.

One means of dealing with the equity concern is by paying out patronage refunds over long periods. This mechanism, which creates a slowly revolving and therefore relatively stable capital fund, is highly developed in North American agroindustrial cooperatives.[11] (This practice also reflects tax considerations, which are omitted from this paper for purposes of simplicity.) Non-member capital Many cooperatives raise funds from sources other than their members, and as defined here these are lower quality, with one exception noted below. Increasing levels of member capital should provide additional comfort to prospective outside lenders, whether short term trade creditors, equipment suppliers willing to lend long term, or commercial bankers in a position to lend seasonally for purposes related to crop cycles. Therefore, member capital formation and use of external capital should be positively related.

Funds raised on commercial terms or through arm's length commercial transactions demonstrate a recognition by creditors of a certain standard of business performance. This level of performance enables commercial creditors to make a commitment to the cooperative, in effect complementing and gearing (leveraging) the members' commitment. These funds

[11] David W. Cobia and Thomas A. Brewer, "Equity and Debt," and David W. Cobia, Jeffrey S. Royer and Gene Ingalsbe, "Equity Redemption," in David W. Cobia, ed., Cooperatives in Agriculture. Englewood Cliffs NJ: Prentice Hall, 1989. pp. 243-266, 267-286; International Labour Office, "Cooperative Management and Administration," 2nd (revised) ed. Geneva: 1988. pp. 146-147; A.E. Rasmussen, "Revolving Equity.

are equal in quality to member funds of the same maturity.

Loans from government or other noncommercial sources are inferior in quality to member-provided funds. Government shares in a cooperative are a lower form, and government loans not related to commercial transactions or to a commercial purpose are of less quality than government shares. Finally, grants may be regarded as the lowest quality cooperative capital.

These classifications of capital differ from the normal ranking used or implied in accounting statements of financial condition, which do not relate source to cooperators' financial commitment to their cooperative.

These classifications could be assigned relative weights, and the quantity of funds provided by each source multiplied by its weight could be aggregated to obtain a quality-weighted "passive" or liabilities and net worth portion of a cooperative's balance sheet. The monetary equivalent quantity and the composition of quality-weighted total footings (total quality-weighted liabilities and net worth) provide new variables for analysis and planning.

Annex B - Papers Presented at the Word Bank Workshop on Agricultural Service and Credit Cooperatives April 21-22, 1994

Luis Corral, "Overview Report on Bank Cooperative Sector Work Experience."

Michel L. Debatisse, "Issues Paper on Algerian and Moroccan Cooperatives."

Grard Deshayes and Daniel Cot, "Key Aspects Regarding Agricultural Service and Credit Cooperatives."

Jon F. Greeneisen, "Cooperative Banks in Poland: Historical Perspective, Current Function and Potential to Finance Rural Economic Recovery."

Tadeusz Kowalak, "Agricultural Service Cooperatives: Case Study - Poland."

Nipendra Mishra, "An Operational Framework for the Future of Cooperatives in India."

Gallus M. Mukami, "World Bank Experience with Agricultural Service and Credit Cooperatives: The Indian Case."

Lorenz X. Pohlmeier, "Agricultural Development Project in Bulgaria: Lending to Farmers Organizations and Cooperatives."

Peter Richstein, "Process of Conversion of the East German Credit Cooperatives in the Wake of the Reunification of Germany."

Orlando Sacay and Jon Greeneisen, "Cooperative Banks: An Institutional Blueprint for Regional Cooperative Banks."

World Bank draft report on "Restructuring the Jordanian Cooperative System."

Annex IV List of Participants

CHINA

Mr. Yang Shao Pin
Deputy Director General
Department of Rural Cooperative Economy
Ministry of Agriculture
11 Nongzhanguan Nanli 100026
Beijing

Mr. Wang Zheng Pu
Deputy Division Chief
Department of Rural Cooperative Economy
Ministry of Agriculture 11
Nongzhanguan Nanli 100026
Beijing

EGYPT

Mr. A. Aboul-Naga
Deputy Permanent Representative of Egypt to FAO
Embassy of Egypt
Via Salaria 267
00199 Rome

FINLAND

Mr. Pekka Jamsen
Managing Director
Finnish Cooperative Development Centre
Simunkatu 6
00101 Helsinki

GERMANY

Prof. Eberhard Dulfer
Philipps-Universitat Marburg
Institute for Cooperative Studies
Am Plan 2
D-5032 Marburg

GREECE

Mr. Panagiotis Kolyris
Director General
Panhellenic Confederation of Unions of Agricultural Cooperatives
16 Kifissias Av.
115 26 Athens

INDIA

Prof. M.S. Sriram
Associate Professor
Institute of Rural Management (IRMA)
PO Box 60
Anand 388 001

Mr. B.D. Sharma
Chief Executive and Director General
National Cooperative Union of India
Siri Institutional Area, Khel Gaon Marg.
New Delhi 110 016

Mr. Thomas Carter
Cooperative Development Advisor
FAO - National Dairy Development Board
PO Box 4906
A-1/6 Safdarjung Enclave
New Delhi 110 029

ITALY

Mr. Giancarlo Costantini
CERFE
Via Montezebio 32
00195 Rome

Mr. Gabriele Quinti
CERFE
Via Montezebio 32

00195 Rome
Mr. Giuliano Vecchi
Responsabile Rapporti Internazionali
Confederazione Cooperative Italiane
Borgo S. Spirito, 78
00193 Rome

Mr. Felice Tambussi
Secretary General
"Giordano dell'Amore" Foundation
Via S. Virgilio 10
20142 Milano

Mr. L. Visani
ICA Representative to FAO
Lega Nazionale delle Cooperative e Mutue (LEGA)
Via Guattani 9
00161 Rome

Prof. Rafael Carbonell de Masy
Pontifical Gregorian University
Piazza della Pilotta, 4
00187 Rome

Mr. Enrico Carone
Senior Consultant/FEDERCOOP Ravenna
Via Giulia, 87
00186 Rome

KENYA

Mr. Richard Wamakau
Executive Director
Kenya National Federation of Cooperatives
PO Box 49768
Nairobi

POLAND

Mr. K. Majkowski
Director, Regional Office
Foundation for Rural Cooperatives
Regional Cooperative Service Unit
Ul. Michiewicza 4, p. 314
10-459 Olsztyn

ROMANIA

Mr. Constantin Dragan
Member of the Board of Administration
Banca de Credit Cooperatist - BANKCOOP
Str. Ion Ghica No. 13, Sector 3
Bucharest

Mr. Tudor Baron
Member of the Board of Administration
Banca de Credit Cooperatist - BANKCOOP
Str. Ion Ghica No. 13, Sector 3
Bucharest

Ms. Eugenia Alb
Head of Office
Banca de Credit Cooperatist - BANKCOOP
Str. Ion Ghica No. 13, Sector 3
Bucharest THAILAND

Mr. Pinit Korsieporn
Alternate Representative of Thailand to FAO
Royal Thai Embassy
Via Zara, 9
00198 Rome

SLOVENIA

Mr. Danilo Beloglavec
Permanent Representative of Slovenia to FAO
Via Leonardo Pisano, 10
00197 Rome

SWEDEN

Mr. Björn Genberg
Swedish Cooperative Centre
c/o Kenyan/Nordic Cooperative Development Programme
PO Box 45767
Nairobi, Kenya

USA
Prof. Michael Cook
Department of Agricultural Economics ,
University of Missouri
Columbia, Missouri 65211

Mr. Frank Vacca
Alternate Permanent Representative of
USA to FAO
Permanent Representation of USA to FAO
Via Sardegna 49
00187 Rome

INTERNATIONAL ORGANIZATIONS

Food and Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
00100 Rome, Italy

- Mr. Pekka Hussi, Senior Officer, Rural Finance Group. Agricultural Support Systems Division
- Mr. A.S. Olofsson, Rural Finance Officer, Agricultural Support Systems Division
- Mr. U. Tietze, Fishery Industry Officer, Fisheries Department
- Mr. Rasmus Odum, Forestry Department, GCP/HON/019/NET, FAO, Tegucigalpa, Honduras
- Mr. Ricardo Uberti, Economist, Investment Centre Division
- Mr. O. A. Monteza, Senior Officer, Rural Development and Agrarian Reform Division
- Mr. T.M. Nadir, Senior Officer, Rural Development and Agrarian Reform Division
- Mr. Wim Polman, Rural Organizations Officer, People's Participation Service
- Mr. Seydou Dembele, Liaison (WFP)/Rural Organizations Officer, People's Participation Service
- Mr. Tomas Lindemann, Small Farmer and Rural Organizations Officer, People's Participation Service

Mr. Takehiko Uemura, Associate Professional Officer, People's Participation Service

OTHER PARTICIPANTS

Mr. J.D. Von Pischke
Consultant
Barents Group
2001 M St. N.W.
Washington D.C. 20036, USA

Mr. J. Peter Marion
Consultant
Marion International Development Services, Inc.
6601 Grand Teton Plaza Suite 7

Madison, WI 53719, USA
Mr. Gerard Deshayes
Grard Deshayes Consultants
4 rue Henri
94000 Créteil, France

Ms. Elena Diacenco
Consultant
Str. Blajel 2, Bl. V4, Ap. 20
Sect. 3 - Bucharest, Romania

MEMBER ORGANIZATIONS OF COPAC

Food and Agriculture Organization of the United Nations (FAO)

- Ms. Leena Kirjavainen, Director, Women and People's Participation Division
- Ms. Jennie Dey-Abbas, Chief, People's Participation Service
- Mr. John Rouse, Senior Officer (Cooperatives and Rural Organizations), People's Participation Service
- Mr. Janos Juhasz, Cooperatives and Rural Organizations Officer, People's Participation Service
- Mr. Jurgen von Muralt, FAO Consultant

International Co-operative Alliance (ICA)
15 route des Morillons
CH-1218 Grand Saconnex
Geneva, Switzerland

- Mr. Bruce Thordarson, Director General
- Ms. MariaElena Chavez, UN/Development Liaison Officer

International Federation of Agricultural Producers (IFAP)
21 rue Chaptal
75009 Paris, France

- Ms. Giuseppina Pela, Representative to UN Agencies in Rome, Via Yser, 14, 00198 Rome

International Labour Organization (ILO)
CH-1211 Geneva 22, Switzerland

- Mr. Bernd Balkenhol, Programme Coordinator, Enterprise and Cooperative Development Department

World Council of Credit Unions (WOCCU)
5810 Mineral Point Road
Madison, WI 53701, USA

- Mr. Christopher E. Baker, Chief Executive Officer

COPAC Secretariat
Via delle Terme di Caracalla
00100 Rome, Italy

- Mr. Tristram Eastwood, Executive Secretary
- Ms. Vittoria Zaffarano, Office Manager

Annex V - List of Related Papers and Publications

Revitalising Cooperatives in Development and Transitional Economies: the Role of Members' Capital, Summary Report of COPAC Open Forum, Rome, 2 - 3 March 1993 (June 1993)

Revitalising Cooperatives in Development and Transitional Economies: the Role of Members' Capital - Review of Programme and Future Developments, Summary Report of COPAC Open Forum, Geneva, 5 October 1993 (January 1994)

Successful Capital Formation Strategies for Agricultural Cooperatives in India, Institute of Rural Management, Anand, India (September 1994)

Successful Capital Formation Strategies in Kenyan Agricultural Producers' Cooperatives, Kenya National Federation of Cooperatives, Ministry of Cooperative Development and Finnish Cooperative Development Centre (June 1995)

Successful Capital Formation Strategies in Guatemalan Agricultural Service Cooperatives, J. Peter Marion and National Savings and Credit Cooperative Federation of Guatemala (June 1995)

The Situation and Opportunities for Capital Development of Polish Agricultural Cooperatives in Terms of their Attractiveness for Existing and Prospective Members, K. Majkowski, Foundation for Rural Cooperatives, Poland