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# FINANCE FOR DEVELOPMENT

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IN the context of this Conference, finance for development should be considered in a wide framework. It can be studied, discussed, and pursued only in relation to the overall development of the country or area concerned. In many cases it would be difficult to isolate agricultural investment from other types of investment. To the Bank –F.A.O. mission for Chile, designed to develop an agricultural programme, it soon became obvious that no such programme could be made without including processing industries, slaughter-houses, marketing facilities, and the like.[2] Most likely this would hold true almost anywhere. The underpinning economic infrastructure, mainly transport, communications, and power must be adequate. But the social infrastructure, e.g. health services, education, water supply, housing, must likewise be taken care of, lest the directly agricultural investments should remain largely unproductive. Furthermore, agricultural development cannot be isolated from industrial development and urbanization. In a dynamic economy these are necessary to provide markets and an outlet for surplus labour. A growing and diversified market for farm products, and labour opportunities for rural people outside agriculture, are indispensable to make agricultural development profitable. In this paper I shall not deal with this prerequisite, but rather assume that it is being provided for. I shall touch only briefly upon the economic and social infrastructural investments.

All in all, investments around and supporting agriculture are quite large, often considerably larger than agricultural financing *per se*. In the more immediate agricultural field, investments are generally a combination of: (a) private, non-institutionalized (both in money and in kind); (b) private, institutionalized; (c) public.

The fields of investment can roughly be divided as being: (i) permanent land improvement or reclamation; (ii) general services to farmers, ($\alpha$) research, extension, vocational training, and ($\beta$) marketing; (iii) long-term investment in requisites (buildings, livestock, machinery); (iv) short-term investment in agricultural production.

[1] In the unavoidable absence of Dr. de Vries the paper was read for him.

[2] Unpublished report of the International Bank for Reconstruction and Development and the Food and Agriculture Organization on the agricultural development of Chile —Washington DC/Rome. 1952.

Considering that investments in transportation, education, and so on are closely interrelated with agriculture, it is evident that the last four categories have no strict borderlines.

In the earlier stages of economic development, little financing for development is necessary, as investment consists mainly of individual or community labour with the use of local materials, collected with local labour. Even the permanent irrigation schemes of old civilizations required little financing (types *a* or *c*, i, iii, and iv). Early examples of financing can be found in Europe, after the beginning of industrialization and overseas trade. Rather spectacular for the period (the first half of the seventeenth century) is the reclamation of lake bottoms in the Netherlands, mainly an investment of money earned in foreign trade. In Europe, in the eighteenth century, under the impact of a combination of physiocrat philosophy, the early application of modern science and techniques, and the waning of feudalism in rural areas, great emphasis was given to investment in land and improvement of farms.

The nineteenth century witnessed a strong trend of commercialization in agriculture. In the field of financing this meant a transition of cultivable land from wealth to capital, with the corollary of investment in real estate by non-farmers or by agricultural business enterprises. This trend spread from Europe (Reuter's *Soll und Haben*) to other continents; it is very strong even today in South America. I exclude this investment in real estate from financing for development. But it has on various occasions been the prerequisite for important investments, for example in plantation agriculture. New trends in financing development appeared—first in colonial territories—through government use of budgetary funds, loans or grants for irrigation-schemes and means of transport. This category of investment has now taken a prominent part in all development programmes (category i). In economically and industrially more highly developed countries, private banks (mortgage banks, investment banks, co-operative banks) entered the field about 1850. Next to enabling people to buy farms, these banks (type *b*) generally confine themselves to financing farm requisites (categories iii and iv). More recent, but of growing importance, is the financing of general services to farmers (category ii), from public or institutionalized private sources (types *b* and *c*). Nowadays, all countries have some combination of all the main types and categories of agricultural development finance.

Farmers operate under a great variety of economic, social, political, and technical conditions, and one could hardly expect to find a global systematic approach to financing. The diversity in methods is so great that one may ask whether there is any relation between the structure of agriculture and the pattern of financing. A few distinctions may be drawn between two main types of farming:

(A) Where it is highly commercialized, both in supply of resources and marketing of product, institutionalized private financing (including banks and credit-co-operatives) tends to be highly developed. Governments assist specific projects, or aid farmers who are interested, through subsidies for permanent land improvement and/or investment in requisites (so-called production incentives).

(B) Where it is not highly commercialized in both respects, non-institutionalized short-term private financing (by moneylender, merchant or landlord) tends to be prominent. Governments assist by executing permanent land improvements and by public (or co-operative) short-term credit.

In both cases, research and extension services to farmers have been added at a later stage.

It is customary to refer to structures A and B as characteristic of farming in highly developed, industrialized countries and in non-industrialized areas respectively. I am using the degree of process of commercialization (use of money in measuring effort and return) in order to avoid the more general notion of development. In the following symbols I have indicated the source of finance ($a$, $b$, $c$) in the numerator, if grants or subsidies are given, and in the denominator, if credits are involved. The small roman figures indicate the fields of investment (categories of financing).

Schematically, the structure of financing would then be typified by:

$$\frac{\mathrm{i}+\mathrm{iii}+\mathrm{iv}}{b}+(\mathrm{i}+\mathrm{ii}+\mathrm{iii})c \qquad \text{(A)}$$

$$\frac{\mathrm{iv}}{a}+\frac{\mathrm{iv}}{c}+(\mathrm{i}+\mathrm{ii})c \qquad \text{(B)}$$

It is generally found, indeed, that in so-called under-developed agricultural areas, institutionalized credit is scarce, and hardly any financing exists for medium- or long-term investments in requisites for improved farming. To quote two instances: in the all-India Credit Survey it was found that an overwhelming part of agricultural credit was provided by private persons; a very large part of the activities of the various agricultural banks in Latin America is concerned with short-term crop financing. Most countries, however, are now moving away from structure B. Their agriculture is becoming more commercialized, or people and governments are striving towards this goal. Can one then expect a more or less automatic change from B to A?—in other words, a development of institutionalized private credit and more subsidies and general services by governments? I am in great doubt. The development of, say, the British and the Indian or the European and South American structures of agricultural financing is to a high degree determined by the economic and social characteristics of society as a whole. No automatic transition can be expected, except over a long time—too long a time to wait. It is important, therefore, to study how the pattern of agricultural financing has changed in the process of commercialization.

Historically, different approaches have been made, in circumstances which perhaps vary so much that the differences were justified. But the resulting pattern of financing and structure of agriculture bear scrutiny.

One approach is to provide transport, marketing facilities, and markets. The peasant will indeed respond to this with increased productivity where there is enough surplus land and labour, as the rapid development of peasant cultivation of coconuts, rubber, cocoa, coffee, and some other commodities for the world market proves. The process is ubiquitous; therefore we do not have to search for socio-cultural limitations. They are technico-economic. As long as only ocean transport was plentiful and cheap, the area covered by this recipe was so small that rapidly expanding world markets were undoubtedly adequate. Since World War I, however, road building, the use of trucks, and increased government activities in providing communications in general, have brought virtually all areas with good quality surplus land and labour within reach of the world market, resulting in danger of imminent over-production.

The second approach is to liberate the peasant from the private moneylender or landlord, and to organize governmental or co-operative credit. This is indeed a measure of relief where there is a large amount of surplus labour on insufficient land. The peasant, however, must change from non-institutionalized, flexible sources and non-punctual, heavy commitments to bureaucratic, non-flexible sources and punctual, not so heavy commitments; and this change is not easy. He will try to use both channels of financing and the relief is incomplete or temporary. It has become clear also that land reform, by dividing large holdings into small independent farm units, generally increases the need for development financing more rapidly than the new opportunities can provide for. Co-operative credit societies will flourish when the circumstances are favourable but in themselves can do little to change the environment if it is unfavourable. As a whole, therefore, this recipe has a rather limited effect on development.

The third approach is to provide for land improvement (irrigation, drainage, flood control, mechanical reclamation and reallocation of holdings). With modern machinery, governments or semi-government organizations can indeed do a lot to improve the capabilities of the soil and the opportunities for peasants to raise productivity. International agencies with advice and funds have done a great deal to assist governments. Some kind of permanent land improvement is often a prerequisite for any further movement in the right direction. But experience with some of the largest projects all over the world shows that often not enough financial resources are available to put the new land to proper use. Consequently, the large investments do not give maximum results.

Lastly, efforts can be made to stimulate people to organize their self-development (community development and similar devices). This has some of the elements which have been lacking in other approaches in the past. Indeed, unless farmers themselves learn how to use new opportunities—technical as well as economic—general provisions will help but little. Here again, however, experience shows that too often land tenure is unfavourable, or marketing and transport deficient, or the soil–water relations unsatisfactory, or advisory services lacking. More, therefore, will have to be done than just helping people organize themselves.

These are the four most important general avenues of approach to the problems of directly or indirectly stimulating and financing agricultural development. They all are relatively costly in the sense that from a macro-economic point of view rather large investments are necessary to raise production. For land improvement, the ratio of capital cost to output varies from around 2·8–3·5 in countries with a favourable land-to-man ratio to 5·5–7·0 in densely populated areas. In this sense, agriculture is a capital intensive industry.

Society as a whole has such great interest in adequate and expanding food production in areas with an unfavourable land-to-man ratio that subsidies on projects for land improvement which reduce the 'private capital coefficient' to around 3·5 : 1 seem justified. Consequently, most long-term financing of permanent land improvement is done through governmental or international agencies. This puts a heavy burden on the economy of low-income countries. They should draw some consolation from the fact that where unutilized labour or local materials can be used, the social cost of the investment drops. Governments and communities should, wherever possible, use this device to decrease the capital coefficient. However, it is not possible to substitute legal measures (land reform, registration or auditing of co-operatives, &c.) for substantive investments. Nor is it possible to rely upon private initiative alone to make use of overall government provisions (transport, power, irrigation and the like). Even where these private forces are ultimately sufficient to use the new facilities, valuable time is lost.

Agriculture almost everywhere, and definitely during a process of changing structure, must be assisted by governments and international agencies in financing change and development. If none of the main approaches to this problem have been a full success, what then can governments do? Perhaps it is at this point that the more highly developed countries have useful experience. Over the last century governments and farmers' organizations have increasingly learned to find out and relieve bottlenecks in the structure of financing. In countries with highly developed private banking, farmers' organizations, internal and external markets, governments nevertheless play an important role in nearly all fields of investment for agricultural development. Most of these countries did not start with planning for overall agricultural development. Farmers' organizations and governments have rather learned to discover where exactly farmers feel the shoe pinch. By doing so, the priority of measures to be taken has shifted from one field (i–iv) to another, and all sources of finance (*a–c*) have alternatively and concurrently been used. Often this may have appeared to be a very pragmatic approach, but in fact these activities have brought about the successive abolition of bottlenecks, and have thereby also led to the disappearance of clear-cut priorities, and essentially to a philosophy of comprehensive approach. It should be feasible to speed up this process of trial and error by conscious survey, research and planning for a coherent approach. In this the four approaches mentioned above may all be useful, and action in all main fields of investment will be necessary. But some measures for assistance will be more necessary than others. Strangely enough, even in the more fully developed countries, no single pattern of government assistance to financing agricultural development has evolved. This is shown in Tables I–II, adapted from an intercountry comparison of government expenditures in some European and North American countries.

Total investments in categories i, ii, and iii vary from 1·2 per cent. to 10·9 per cent. of gross agricultural product. Credit to farmers is not included in these figures. The variation is so great that no systematic scrutiny seems feasible. As Table II indicates, however, there is a tendency for countries with high productivity per hectare to show high investments in research, extension and education services. If this trend proved to be world wide, it would at least partly explain the widening gap in productivity between high and low producing countries.

TABLE I

*Government Expenditure for Agricultural Development (expressed as a percentage of gross agricultural product)*

| Country | Land improvement, &c. | Technical incentives | Research, education, extension | Total |
|---|---|---|---|---|
| Iceland | 7·6 | 1·3 | 2·0 | 10·9 |
| Norway | 5·7 | 0·3 | 2·2 | 8·2 |
| Sweden | 1·2 | 0·5 | 2·0 | 3·7 |
| Denmark | 0·4 | — | 2·0* | 2·4 |
| United Kingdom | 1·1 | 2·8 | 1·2 | 5·1 |
| Ireland | 4·3 | 0·6 | 0·9 | 5·8 |
| Netherlands | 3·9 | — | 2·3 | 6·2 |
| Belgium | 0·1 | 0·4 | 1·6 | 2·1 |
| France | 1·5 | — | 0·4 | 1·9 |
| Germany (W.) | 4·6 | 0·7 | 0·9 | 6·2 |
| Switzerland | 1·6 | 0·6 | 0·9 | 3·1 |
| Austria | 1·8 | 1·0 | 1·1 | 3·9 |
| Italy | 4·3 | 0·1 | 0·4 | 4·8 |
| Greece | 0·9 | 0·5 | 0·1 | 1·5 |
| Turkey | 0·3 | 0·7 | 0·2 | 1·2 |
| United States | 2·5 | — | 0·8 | 3·3 |
| Canada | 2·9 | 0·3 | 1·9 | 5·1 |

* Put here at four times direct government expenditures.

With regard to credit to farmers (category iv) it would be difficult to establish statistically whether or not farm credit is geared to the overall development of agriculture. Most authors point to the fact that short-term or crop loans are an overwhelming part of the business of agricultural credit in low-producing countries. In India, for instance, in 1955–6 the co-operative banks drew over 250 million rupees at concessional rates from the Reserve Bank of India for short-term loans. On 30 June 1956 no more than 10 million rupees were outstanding in respect of medium-term loans. For this purpose I will refer only to some data from the most useful survey of Johnson and Johnson.[1]

[1] V. Webster Johnson and Edwin C. Johnson, *Farm Credit Activities in Selected Countries*, Sept. 1954.

In the Philippines the Agricultural Credit and Co-operative Financing Administration, in its first two years up to 30 June 1954, paid over 4 million pesos in loans of which 0·5 million were for farm improvement only (mostly for buffaloes and farm tools).

TABLE II

*Productivity and Expenditure for Research, Extention and Education in Agriculture*

| Country | 'Reduced area' thousands of hectares (1956) | Aggregate production (million I.U. in 1948/9) | Return per hectare (I.U.) | Expenditure in percentage of gross production | | | |
|---|---|---|---|---|---|---|---|
| | | | | Research | Extension | Education | Total |
| Iceland | −150 (est.) | 30 (est.) | 200 (est.) | 0·40 | 1·12 | 0·48 | 2·0 |
| Norway | 965 | 239 | 248 | 0·59 | 0·69 | 0·92 | 2·2 |
| Sweden | 4,194 | 910 | 222 | 0·58 | 0·52 | 0·90 | 2·0 |
| Denmark | 2,990 | 856 | 295 | 0·52 | 0·80 | 0·68 | 2·0 |
| Un. Kingdom | 15,184 | 2,903 | 192 | 0·66 | 0·32 | 0·22* | 1·2 |
| Ireland | 3,617 | 504 | 141 | 0·17 | 0·44 | 0·29 | 0·9 |
| Netherlands | 1,588 | 1,036 | 690 | 0·80 | 0·93 | 0·57 | 2·3 |
| Belgium | 1,488 | 668 | 477 | 0·22 | 0·20 | 1·18 | 1·6 |
| France | 29,552 | 5,556 | 190 | 0·10 | 0·12 | 0·18 | 0·4 |
| Germany (W.) | 12,519 | 3,233 | 258 | 0·30 | 0·40 | 0·20 | 0·9 |
| Switzerland | 1,595 | 530 | 353 | 0·31 | < 0·59 > | | 0·9 |
| Austria | 3,315 | 495 | 158 | 0·27 | 0·16 | 0·67 | 1·1 |
| Italy | 19,227 | 3,740 | 195 | 0·05 | 0·02 | 0·33 | 0·4 |
| Greece | 6,977 | 559 | 81 | 0·002 | 0·09 | 0·01 | 0·1 |
| Turkey | 44,085 | 1,921 | 44 | 0·05 | 0·10 | 0·05 | 0·2 |
| U.S.A. | 358,927 | 31,745 | 89 | 0·50 | < 0·30 > | | 0·8 |
| Canada | 55,184 | 3,184 | 58 | 1·06 | 0·46 | 0·38 | 1·9 |

* Excluding expenditure for university education.

In the United Arab Republic, in 1951, total loan transactions of the Agricultural Credit and Co-operative Bank amounted to approximately £E 13 million, of which £E 12·7 million were short term, £E 100,000 for livestock and machinery, and only £E 5,000 for land reclamation. The Agricultural Mortgage Bank, established in 1935, for long-term real estate loans, had no more than £E 1·1 million outstanding in 1950.

In the U.S.A., however, the Farmers Home Administration and its predecessors, up to 30 June 1953, had made loans to the amount of $600 million for farm ownership, housing and water facilities, as against $614 million for production and subsistence—short-term loans of which 95 per cent. had already been paid back.

On the basis of very inadequate data, I would suggest that investment patterns in some countries may differ as widely as the following table shows.

| *Category* | i | ii α | iii β | iii | *Total* | iv | *Interest to be paid on* iv |
|---|---|---|---|---|---|---|---|
| | (in % of gross agricultural product) | | | | | | |
| Investment | 8 | 2 | 1 | 2 | 13 | 30 | — |
| Source: Private | 4 | 0·5 | 1 | 2 | 7·5 | 28 | 1·5 |
| Government | 4 | 1.5 | — | — | 5·5 | 2 | — |
| Capital Coefficient | 5 | 2 | 3 | 3 | — | — | — |
| Impact on development | 1·6 | 1 | 0·3 | 0·7 | 3·6 | — | 1·5 |
| *Category* | i | ii α | iii β | iii | *Total* | iv | |
| Investment | 6 | 0·5 | 0·1 | 1 | 7·6 | 20 | — |
| Source: Private | 3 | — | 0·1 | 1 | 4·1 | 18 | 3·6 |
| Government | 3 | 0·5 | — | — | 3·5 | 2 | 0·2 |
| Capital Coefficient | 3 | 1 | 2 | 2 | — | — | — |
| Impact on development | 2·0 | 0·5 | 0·05 | 0·5 | 2·5 | — | 3·8 |
| *Category* | i | ii α | iii β | iii | *Total* | iv | |
| Investment | 1 | 0·1 | 0·1 | 0·5 | 1·7 | 10 | — |
| Source: Private | 0·3 | — | 0·1 | 0·4 | 0·8 | 10 | 4 |
| Government | 0·7 | 0·1 | — | 0·1 | 0·9 | — | — |
| Capital Coefficient | 3 | 1 | 1 | 1 | 1 | — | — |
| Impact on development | 0·33 | 0·10 | 0·10 | 0·50 | 1·03 | — | 4 |

Even without a comprehensive set of data, it seems a safe conclusion that finance for agricultural development is often either deficient in quantity, or unbalanced in composition, or insufficiently co-ordinated, or imperfectly timed, or showing a combination of these deficiencies for a balanced development of agriculture. Further studies of the pattern of investment and financing in relation to the structure of agriculture are urgently needed in order to help countries develop more efficient patterns.

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Although in many European and American countries it may not be difficult for agriculture to obtain abundant credit at favourable rates, in other countries the position is much less favourable, credit being available only under exorbitant conditions, or not at all. In several of these countries the situation is further complicated in so far as, in the absence of some form of collaboration, there is little hope of their solving the problem from their own resources and without foreign intervention.

The question of agricultural credit is of prime importance both in the problem countries themselves and internationally, because it has grave effects on production. Each nation for which this is a problem must begin by itself trying to organize credit institutions and agricultural co-operatives. From the international point of view the provision of agricultural credit is an activity in which mutual aid between the many nations could thrive to the benefit of all. It is desirable not only for solidarity, but also for the true welfare of individual countries, for they are all interested in increasing production, social welfare, and purchasing power.

The real world is characterized by inequality of economic and social development; prosperity and comfort being exceptions to the more common misery and malnutrition. U.N. experts have proved that the gap between the well-developed and the under-developed countries has widened since the war in spite of the rapid general increase in production.

According to F.A.O., world production (excluding eastern Europe and China) has increased since 1938 by 66 per cent. and production per head by 30·7 per cent. But the increase is very unevenly distributed. In the U.S.A., Canada, Western Europe, Japan, Australia, and the Union of South Africa, production increased by 74·6 per cent., population by 10 per cent., and production per head by 42·1 per cent. On the other hand in the whole of the under-developed countries production increased by only 40 per cent., and population by 32·5 per cent., production per head increasing by only 5·5 per cent. More particularly, production per head in Latin America increased by 8·1 per cent. whereas in South-east Asia it fell by 8 per cent.

Stabilization of the world economy cannot be realized if these shameful inequalities are not reduced. The capacity of under-developed countries to purchase goods must be augmented, because international economic collaboration and the organization of aid to under-developed countries are not sufficiently effective. Aid must take new forms.

In 1949 the sub-commission for economic development of the Economic and Social Council of U.N.O. formulated such principles of international finance as should be applied. International finance was recognized as contributing to the development of productive forces in the under-developed countries. The resolution which was adopted stated that financing should not be carried out under conditions which would prejudice the interests and the sovereignty of under-developed countries, and that it should not assume economic or political privileges to the creditor countries. In this spirit the General Assembly of the United Nations on 14 December 1957 adopted a resolution (No. 1219) (XII) that financing should be by a special fund. According to a report compiled by a group of U.N. experts under Mr. Scheyen 'the role of the special fund would be to establish an economic and social sub-structure, that is to say, a framework of basic relationships in the under-developed countries. To do this, the Fund should be able to finance social and economic investments and assist the carrying out of projects whether profitable or not.' This Fund amounts to an economic and practical necessity. In effect, 'from the economic point of view, these under-developed countries need interest-free investments with which to build foundations indispensable to the eventual carrying out of profitable projects. Neither private capital nor the Bank nor technical assistance can meet these requirements. The only true solution is to raise the national income of these countries, that is to say, to increase their production.'

The investigations of the World Health Organization together with those of economists have thrown into sharp relief the purely medical costs of saving human life, and the economic costs of investments to maintain it. Particularly in India, the mortality rate has fallen from 20 per cent. in 1920 to less than 5·5 per cent. in 1956 and hence the increase in population for which the country is in no state to provide sustenance.

The foundation of agricultural development, particularly of under-developed countries, must be financed by competent agencies of U.N.O. and F.A.O. The governments of these countries have to fulfil numerous important functions that they alone can do. Besides law and order, they have to create institutions for assuring the correct functioning of the economy and the administration of economic services for which it is not possible to arrange monetary payments. These foundations, which make possible the social functioning of agricultural credit, are not part of the agricultural credit system itself.

This is why in 1947 the sub-commission of the Economic and Social Council of U.N.O. formulated principles for future international finance. But so far these principles have not been applied.

The international plan provides finance and credit on a world scale. The three principal institutions being:

1. The International Bank for Reconstruction and Development;
2. The affiliated International Finance Corporation;
3. The International Monetary Fund.

The International Bank is certainly a most useful institution, but its activities are strictly limited, and it can neither lay an economic 'sub-structure' nor solve the agricultural credit problem which it has so far evaded. Moreover its procedure is too slow, even allowing that it gives credit only for safe and profitable enterprises. Its new organization, the International Finance Corporation should serve mainly to facilitate the export of the products of investments in undeveloped countries, and it cannot break out of the field prescribed by the International Bank which provides it with its credits. As many of these countries do not qualify under the rule of the bank, the U.S.A. constituted a special fund (Economic Development Fund) last year for assisting under-developed countries by means of long-term capital loans, which are available for foundational work as well as for productive projects.

The Export-Import Bank also plays a most important role in financing foreign countries with its capital of five milliards of dollars. But it is concerned mainly with financing American exports to regions within the sphere of U.S. economic and political influence.

The I.M.F. is essentially a device by which each of its member states can maintain exchange stability on the basis of reciprocal rates of exchange. The I.M.F., like the I.B.R.D., deals only with member nations through their treasuries, their stabilization funds, their central banks, and other similar organizations.

There are also some regional international organizations, though they are few in number. In Europe the International Clearing Bank has been at work since 1930, facilitating international settlements and, in particular, liquidating the annuities payed by Germany under the Young Plan. In 1948 the Organization for European Economic Co-operation was constituted and the I.C.B. became its technical agency as it did for the European Payments Union when it was set up in 1950. It acted also as banker of the Union, thanks to initial dollar capital provided by American aid. The U.S.S.R. in 1955 organized an Economic Commission for co-ordinating its own planning with that of the other countries belonging to the rouble area, and of co-ordinating the loans granted to members of the Commission.

Three other organizations should begin to work in the course of this year, foreshadowed in the agreement instituting the European Economic Community. These are: the European Investments Bank, the European Social Fund, and the Economic Development Fund for overseas countries and territories.

The agreement instituting the European Economic Community, signed in Rome on 25 March 1957 (articles 129 and 130) presaged a European Investments Bank 'to contribute, by calling on the capital market and its own resources, to balanced development in the interests of the community, without running counter to the aims of the Common Market'. To this end it grants loans and guarantees regardless of their profitability to help finance projects in under-developed regions and projects aimed at the modernization or conversion of enterprises or the creation of new enterprises called into being by the progressive establishment of the Economic Market. This Bank should not be confused with the European Social Fund (articles 123–8 of the Treaty). The Bank will lend and guarantee without having to consider profitability. The Fund, on the other hand, will share with a member state (to the extent of 50 per cent.) the expenses which arise through the re-employment of workers displaced by the nationalization of enterprises.

Outside Europe, however, an equally strong tendency is found in favour of the creation of specialist organizations in certain zones. The U.N. Economic Commission for South America has recommended that studies should be made to discover under what conditions a common financing organization for under-developed countries in Central and South America should be created.

In the Far East the Colombo Plan has been confined until now to distributing technical assistance and, to a far lesser degree, credits given to financing by certain of its members, having neither resources of its own nor the means of acquiring them. Today, however, its directors seem to wish to reconsider the problem of extending its financial influence.

In the Middle East the notion of an Arab Bank constituted on the recommendation and with the technical assistance of the I.B.R.D. is gaining ground with the main object of collecting, more efficiently than the governments concerned, the dollar profits of the petroleum-producing states, and of redistributing them among all the members of the Arab League whether rich or poor.

The public international credits which may be given by governments or by intergovernmental organizations appear more and more as the essential sources of outside capital. The problem is so great that three difficulties are apparent:

(*a*) Purely technical solutions are increasingly difficult to discover, and political considerations are intervening to a growing extent.
(*b*) Private capital, which public credits should help to release, seems less and less disposed to investment, at least directly.
(*c*) Nations and enterprises the world over, whatever their political views, are seriously under-capitalized.

Agricultural credit has features which are quite different from those of other forms of credit, and we cannot expect to solve its problems in the same way. It is necessary to lean first on co-operation and mutual aid amongst farmers. In no sphere can the principle of self-help be developed as it can in agriculture. It follows that national institutions are the only solid foundations of international agricultural credit. In the face of new and grave world events, it is more than ever important that the land of all nations should be made as productive as possible. This would be done if, in place of traditional orientation under which the various national agricultural economies are left in isolation, one could achieve an international exchange of factors of production, and more especially of the capital needed to put into practice techniques which are already well known. The problems could be solved by the creation of an international credit organization constituted on the basis of a federation of the different national agricultural credit associations, which habitually keep both private and general interests in view, and which are capable of attracting the greatest quantities of savings on the various markets and of using them profitably.

Short-sighted and self-interested politics have so far been too much concerned with crises, but no state can expect prosperity in isolation. In these days of rapid progress, where the economy is a question of masses, of social dynamics, agriculture is still the principal occupation of the world's population. The Keynesian theory should therefore be extended. Increasing population draws attention to the need for basic production, above all of food, in order to prevent the standard of living from falling below the minimum physiological requirements. On the other hand, the granting of capital by rich industrial countries to poor agricultural countries facilitates the marketing of their goods in the countries which would benefit from the importing of capital. Before the war the question of international agricultural credit was examined in 1926 by the Commission on Agricultural Credit of the International Institute of Agriculture, and by the Economic Conference of the League of Nations in 1927. But these beginnings were not followed up because of the political autarchy which prevailed at that time.

The International Confederation of Agricultural Credit (I.C.A.C.), founded in 1950 at Zurich to represent agricultural credit organizations on an international scale suggested that its members should look for ways to increase the financial solidarity which already existed among them with a view to making agreements, either with the I.B.R.D. or with the Import-Export Bank or the I.C.B., to direct new external capital into agriculture, especially in agricultural export countries (resolution adopted by the Second World Congress in Naples in 1954).

Finally, the General Assembly of the I.C.A.C. meeting again in Ankara (September 1954) and Madrid (October 1955) went into the question of creating an international agricultural credit bank. A special committee charged with preparing statutes for such an institution met twice in 1954, in Berne and Nice. Agreement in principle was reached and rules drawn up. But the central committee decided, in February 1956 in Paris, to adjourn the matter to allow more study within the framework of the European Common Market.

Nevertheless, the organization of international agricultural credit is a vital and urgent question and I venture to put forward a scheme for an international agricultural credit bank, inspired mainly by the statutes of the I.C.B. and the I.B.R.D. and by the proposal submitted to the Madrid meeting in 1955.

The problem of agricultural credit has always been an object of study and legislation in all countries, and now that farming is tending to adopt systems which need more capital, both fixed and circulating, the problem is becoming more important. It concerns the economic life not only of states but of the world. However, the many types of economic activity which are included in the term agricultural credit differ profoundly in their objectives and in their legal forms. It is necessary to distinguish land credit, i.e. mortgages, true agricultural credit for the purchase of the normal means of production, and credit for more permanent productive purposes (irrigation, drainage, &c).

Land credit, based on public survey or mortgages or collateral security, cannot in practice serve an international credit organization though it could be used by local organizations.

The financing of local agricultural banks by an international bank should therefore cover three forms of credit:

1. Short-term credit (6–12 months) for cultivation costs.
2. Medium-term credit (3–5 years) for purchasing cattle and agricultural materials.
3. Long-term credit (5–20 years) for land improvement, plantations, building, and founding agricultural industries.

The interest on loans granted by the International Bank of Agricultural Credit to local organizations would depend on fluctuations in the money market. It should not exceed 4 or 5 per cent., so that these organizations would be able to lend at 6 or 7 per cent. to peasants, at 6 per cent. to agricultural co-operatives, and at 7 per cent. to peasants organized in co-operatives who offer better security for loans and reduce the costs of administering agricultural credit.

It could hardly finance the agriculture of the whole world, but rich industrial countries (U.S.A., Canada, W. Europe) with high national incomes do not require assistance from the I.B.A.C. This also applies to rich agricultural countries of low population density and with high national income per head, such as Australia and New Zealand. There remain the poor agricultural countries which need the good offices of the I.B.A.C., and those of very high rural population density, such as India, Pakistan, China, Poland, S. Italy, and the Balkans, together with poor agricultural countries of low population density covering a large part of Latin America, almost all of black Africa, and certain countries of the Near East. This second group corresponds with what may be called insufficiently developed countries.

Furthermore, a large part of the necessary credit would be provided by the countries themselves, corresponding to the capital and resources of national establishments, or local agricultural credit; better use would be made of capital, thanks to better technical utilization; and these countries could increase their investment to some extent by mobilizing hand labour where there is forced idleness and under-employment of the rural population. Some of the impressive achievements of New China have only been possible because of such conditions.

In countries which have no agricultural bank it may be possible to create one for dealing with land tax following the example of Turkey and Bulgaria. Technical assistance from the A.B.A.C. could be used for this purpose and also for organizing agricultural co-operatives.

As distinct from government loans and those of certain other organizations such as the Commodity Credit Corporation or the International Co-operation Administration, credits granted by the I.B.A.C. would not be accommodation credits ('soft loans'). Before being granted there would be an examination of the situation in the country to be assisted, and this would be followed up with technical and economic advice. This means certain delays, but the borrowing country would thus be assured that it would not be offered more than it could afford.

The exports of the organization would also be concerned with achieving a balance between credits as estimated, and the inflationary effects associated with a loan for buying materials abroad and covering only part of the cost. This amounts, in effect, to calculating whether the remainder of the expenses would be paid in national currency provided from public funds or by appealing to the money market, or by recourse to *l'Institut d'Emission.*

But the experts would have above all to examine the probable monetary returns on the invested loans as well as the period during which the investment would be profitable, in order to assure the solvency of the farmers as well as of the debtor organizations. Short-term loans would be granted in the currency of the borrowing countries. But medium- and long-term loans should be made in the most stable currency available in order to avoid the evil affects of devaluation which is always to be feared in Europe, and in under-developed countries. For stable money, the dollar is the unit of choice, or even better, a unit of exchange with the value of 0.888.670.88 grammes of fine gold—a price already adopted by the European Payments Union and which corresponds to the actual gold parity of the U.S. dollar.

One of the first questions to arise in creating an international agricultural credit organization is the form it should take. As I have said, it would be supported by existing national agricultural credit organizations and, in effect, would make its advances through them since it would not be necessary to establish branches in all countries, and certainly not in all provinces of each country. The bank would operate as trustee or agent of the parties concerned. The legal statute which would create the organization would give it the form of a society having the national organizations as members. Under this form the Bank would bring together the capital which would constitute its social capital and which would be provided by the affiliated establishments, national or central. But, it would have to procure very considerable resources by borrowing, be it from the I.B.R.D., assurance societies or securities offered in the different countries.

An international institution would have to expect difficulties, especially:

1. The wide diversification of agricultural land credit in different countries, several of which have no central organization.
2. The difficulty of obtaining legal recognition and support from many countries, since agricultural credit is already well organized in some of them and is adequate for their needs.
3. The probable opposition which would arise in some states against an organization operating on a higher level than internal banking organizations and from outside the State.
4. The great variety of monetary systems and the instability of national currencies.

5. The politics of certain countries, especially the U.S.A. and the U.S.S.R. which have so far preferred to grant credits through bilateral agreements.

It is not to be supposed, therefore, that the problem can be resolved solely and immediately by the formation of an international bank. However much capital the bank might raise, and however great the ability of its directors, its operation would have to be hedged about with every possible guarantee. It could only deal with national institutions. Hence every country would have to have a single organization to represent and co-ordinate all the interests and financial needs of agriculture and operate under the requisite economic and technical conditions.

The I.B.A.C. would then have for its objectives:

1. To encourage co-operation amongst national rural credit organizations.
2. To grant to them advances, to discount, to rediscount, to buy or sell effects and securities.
3. To facilitate, by means of guarantee and through the different national member organizations, the placing of foreign capital.
4. To participate in the re-organization of national agricultures, allowing them, thanks to opportune financing, to fit themselves usefully into the new world economy.
5. To facilitate international trade in agricultural products and machines, and everything that can contribute to improving agriculture, technically, economically, and socially.

The main activity of the I.B.A.C. would consist, then, in conducting the banking operations required of it by national agricultural credit organizations. It would not look for profits. It would utilize funds provided by its associated national institutions or from loans. It would levy only a modest charge to cover its costs. Funds and disposable assets should be used in the interest of its members.

The capital of the I.B.A.C. would not be limited. It would consist of the sums deposited by the participants. Its actions would be defined, and would be changed only by decision of its council. The Bank could give guarantees or participate in loans to all its member organizations, on condition that the loan granted directly by it should be guaranteed by the organization within whose jurisdiction the enterprise would be developed. A special committee of experts would be obliged to give its preliminary opinion on requests to the Bank for loans, and the ability of the enterprise to meet the charges for a loan would be assessed.

The Bank would comprise a department to conduct the transactions, a technical and economic department to examine proposals, and a general secretariat in charge of administration. Although this organization would not be in direct contact with the public it would be a true bank, anxious to maintain its credit, the relative liquidity of its balances, and the equilibrium of its losses and profits.

As to the seat of this bank, it should be in one of the large money markets—U.S.A. or Switzerland. The B.R.I. at Basle enjoys a constituent charter having the force of law under a convention between the interested governments and the Swiss Federation, which gave it several advantages, particularly with regard to taxes. Parallel facilities would be granted to the I.B.A.C.

Finally, I would say that the days of individualistic activity in economic and financial affairs are over. Solutions of practical difficulties must be sought in the international sphere.

E. D. BRANDÃO, *Rural University of Minas Gerais, Viçosa, Brazil*

Dr. de Vries has gathered together a series of lessons and observations of real interest on a subject of great importance for agriculture today.

As a representative of a country that is willing to devote much of its resources to developing its agriculture quickly, I am somewhat disappointed to learn that even in the more fully developed countries no single pattern of government assistance has evolved for financing agricultural development. In spite of this, I believe we shall agree that Dr. de Vries's paper has thrown much light on the problem. But I wish he had developed his fourth approach—'Stimulate people to organize their self-development'—because this seems to be one of the answers for capital formation in agriculture.

While agreeing with his main points, I should like to mention a few Brazilian experiences.

Late in 1949 a Joint Commission[1] composed of Brazilian and North American economists put out an impressive report which contains the following statements:

Brazil's enormous territorial area of about 3,290,000 square miles, its wide range of climate and soil conditions and its adaptability to the production of many crops of world-wide importance constitutes an economic potential that must at no time be overlooked. It is not only good for the nation as a whole but also for agriculture that there be developed an

[1] *Report of Joint Brazil–United States Technical Commission*, The American Chamber of Commerce for Brazil, Rio de Janeiro, Brazil, 1949.

economy which reflects a balance between industry and agriculture in keeping with all the country's resources.

Although Brazil produces crops which require much hand labour and therefore do not lend themselves to complete mechanization, available evidence indicates an enormous waste of labour in its total agricultural production—so a basic requirement in Brazil's development of agriculture is higher productivity per man.

In Brazil there are many domestic programmes aimed at developing agriculture. Several are supported by the Federal Government, others by State governments, some with the same objectives, and many slowed down by strong obstacles. But it began to look as if a proper environment had been prepared to receive something new; and the new event came. An organization called the Association of Credit and Rural Assistance (A.C.A.R.) was formed by agreement between the State Government of Minas Gerais and the American International Association of Economic and Social Development (A.I.A.). Its work is based on the services of agronomists and home economists working in pairs. Starting out in a jeep to visit small farms and to introduce a programme with a new philosophy was not an easy task. Many taboos had to be overcome. But when the results of the A.C.A.R.'s educational work, associated with credit, began to appear the doubts and the resistance melted. Today this pioneer programme for combining rural extension and supervised credit in one organization for farmers of different levels has spread into ten other states. In addition, strong interest has been shown by many foreign economists and sociologists who, after inspecting the A.C.A.R. work, report on it favourably. A similar programme may be seen near New Delhi.

A few examples of stimulating results which I have noticed are:[1]

1. The farmers' assimilation of twenty technological processes, after three years of technical assistance, was statistically highly significant. From twelve to sixteen of every twenty farmers who were assisted adopted new techniques, none of which were adopted by farmers who did not receive direct assistance from technicians. This analysis covered 186 farmers.

2. Other analyses of 145 families covering a two-year period of assistance have shown that they made substantial increases in their size of business: a 77 per cent. increase at the end of the first year of assistance and a further 39 per cent. at the end of the second.

[1] *See* E. D. Brandão, *Principios de Administracão Rural que Interessam a um Programa de Extensãoe Crédito Supervisiomado*, Tese para concurso de professor catedratico, Universidade Rural do Estado de Minas Gerais, Viçosa, M.G., Brazil.

3. The loans applied to *productive* investments (machinery, livestock, fertilizers, seed, feed, &c.) gave the farmers higher incomes quickly.

4. As was pointed out by a certain number of extension workers, the farmer should receive no less and no more than the money required for the farm management plan, and it must be available to him at the proper time. Furthermore, he should then pay the common market rate of interest in spite of the usual appeal for subsidized credit.

5. The same workers believe that, for Brazilian conditions, credit without technical assistance does not solve the farmer's problems. Credit with education is needed.

6. Generally speaking, the analyses have shown effective results for all farmers engaged in the A.C.A.R. programme.

A series of similar conclusions have been found by Dr. Mosher:[1]

> The value of supervised credit in raising agricultural production and the level of the farm living on Brazilian farms of a certain size and type has been demonstrated by ACAR, and it has set supervised credit in prospective within a broader program of extension education.
>
> The most significant achievements of a programme of technical co-operation are often something other than those intended when the program was set up. First, ACAR has built public confidence in the ability of families on small farms to shift to dynamic more productive agriculture; second, ACAR has demonstrated to graduates of Agricultural Colleges that there is a satisfying career in working with rural families in a general extension service. This can be of enormous significance in developmental programs.
>
> Programs of technical cooperation often look expensive in the beginning but they are really cheap in the long run.
>
> The ACAR program illustrates that a program need not be nationwide in the beginning to have wide influence at an early date.
>
> The ACAR experience has demonstrated the effectiveness of a Brazilian staff in a program of agricultural development with only a minimum of participation by foreign technicians.

Since A.C.A.R.'s idea has spread through half the Brazilian states where capital and technicians are very scarce, a new organization had to be found to co-ordinate and stimulate a programme of rural extension and supervised credit as a means of attaining higher socio-cultural and economic levels. To fulfil this objective an association called the Brazilian Rural Credit and Assistance Association will; (i) obtain financial resources and technicians from international, inter-

[1] A. T. Mosher, *Case Study of The Agricultural Program of ACAR in Brazil*, National Planning Association, 1606 New Hampshire Ave., N.W. Washington I, D.C. 1955.

regional, inter-governmental, and national organizations, to be applied specifically in Brazil to rural extension and supervised credit programmes; and to encourage the recruitment and training of additional personnel, and (ii) promote the co-ordination of regional and State programmes with the view of establishing uniform directives protecting the fundamental principles of rural extension and supervised credit in accordance with the characteristics of the work system being used, without detriment to its natural evolution and necessary local adaptation.

I hope it is appropriate to have pointed out some research information already available of the type urged at the end of Dr. de Vries's paper.

V. CIARROCCA, *Osservatorio di Economia Agraria, Rome, Italy*

The historical analysis which Dr. de Vries has given reminds us that the financial resources of agriculture in the Netherlands came mainly from outside agriculture and I may add that, with the exception of New Zealand and Australia, agriculture is still principally financed from outside sources. But it is important to point out that available means are few—notwithstanding the goodwill of international agencies and governments—and that it is important therefore that investments should be sound and should give good returns to capital. Dr. de Vries's comments on ambitious projects that remain unaccomplished are most apt.

It is not easy to channel agricultural investment into the right directions. That is a most important job for agricultural economists. It should not be forgotten that agriculture is hampered more by the wrong employment of capital than by its relative scarcity.

G. B. KULKARNI, *State Bank of India, Bombay, India*

Dr. de Vries has discussed the problem well, but in so broad a way that I find his conclusions rather unhelpful. I think that he should have emphasized one very important aspect of the problem which he omitted, viz. the cost of finance.

I notice too that he came almost to a negative conclusion on the subject of his second approach, namely the role that co-operative credit agencies can play. 'As a whole', he says, 'this recipe has a rather limited effect on development.' I should like to place before you the broad problem we have been facing in my country and to tell you something of the attempts we have been making to solve it. I should like to be enlightened by persons here who, placed under similar conditions and facing similar problems, have solved them. Their experience, I feel, will be of great help to us.

While talking about the development of institutional credit, Dr. de Vries says that he is afraid that it will take too long. Similarly, he says that the relief that is expected from government and co-operative credit is incomplete or only temporary. I think this is a rather more pessimistic view than is actually warranted—at any rate, judging from the little experience we have had in this country. Much of course depends on the duration of this long period. Similarly he has stated that co-operatives will flourish when the circumstances are favourable and that they can do little to change the environment if it is unfavourable. I may tell you that through co-operative development we are in fact attempting to change the environment itself.

The main problem before us, I think, is that most farmers cannot offer the necessary security in a form acceptable to an institutional financier. That leads to the problem that non-institutional financing agencies which supply farmers with credit require a very high price for it. We have decided, therefore, to develop co-operatives as fast as possible, not only in credit but also in various other fields, such as marketing, processing, and warehousing. Farmers are encouraged to form co-operatives and they are helped to do so on their capacity to produce rather than on the basis of security in the form of property. We have decided on, and have put into operation, a system by which credit is integrated with marketing. These co-operatives which are very actively assisted by the Government, the Reserve Bank of India, and the State Bank of India are charging quite reasonable rates of interest—currently about 6 or $6\frac{1}{2}$ per cent. It is in this way that we feel that co-operatives can gradually replace private credit agencies by adopting almost the same techniques as those of the private moneylender. I do not say that we have found a solution which is sure to lead to successful results. Much will depend on the effective utilization and prompt repayment of this credit. We have our difficulties and our differences, and I shall be grateful to hear the experiences of other countries.

R. Narasimhiah, *Young Farmers' Association, Mysore State, India*

I agree that finance is an important factor that can speed up development. Yet I wonder how far we can achieve our object—i.e. increased production—by increasing finance alone.

I have been in constant touch with farming people for the past thirteen years following my education in agriculture. We have tried our best to provide facilities such as those recommended by our learned friend in his paper. But ultimately, it has been borne in upon me that most of our help has not really been utilized, and that the value realized is nowhere near that of the amount of energy spent on giving this help. I feel that this need of progress, this need of achievement, the realization of this purpose of increased production, has been understood only by me and not by the farmers. It is clear that intention, however good, leads only to frustration unless there is the necessary skill.

Many of our friends here lead me to believe that economists and technicians can play a great role with their good intentions, but skill must be there too. Progress today depends mostly on local leadership which must weld together the good intention and the skill. You are all here to guide us to achieve this.

H. S. MANN, *Department of Economics, Government College, Ludiana, Punjab, India*

I have one observation to make about the necessity in the less fully developed countries of integrating farm credit with marketing through the agency of multi-purpose co-operative societies. Single-purpose agricultural credit societies have been operating for over fifty years in this country, and yet they supply only a little over three per cent. of the credit needs of the farmers.[1] A multi-purpose co-operative society would not necessarily supply credit in cash, but perhaps in the form of advances of seeds, fertilizers, and even consumer goods for household requirements. It would be binding on the members to market all their surplus produce through the agency of the society. For each advance the farmer received, an entry could be made in his pass-book, and the advances could be adjusted against the price of his surplus produce sold by the society. The members' interest in such societies would be more sustained as all of them would get farm and household requirements from the society. At present some of the members of the single-purpose credit societies who do not need loans take no interest in the working of the societies, while others whose loans are over-due try to keep away from the societies so far as they can.

O. SCHILLER, *Institut für Agrarpolitik und Sozialökonomik des Landbaus, Stuttgart-Hohenheim, Germany*

Professor de Vries has explained the difficulties of rural credit in under-developed countries. The main difficulty is that a great propor-

[1] *All India Rural Credit Survey*. Reserve Bank of India, Report of Committee of Directors, v. II. General Report, ch. 14, p. 167.

tion of the credit given to the peasants is used for unproductive purposes. The relevant figures given in the paper are very instructive. The other difficulty is that the repayment of credits, even if they are used for productive purposes, is not secured because any additional production achieved with the help of such credits is more likely to be consumed than to be used for repayment, if the peasants are living at subsistence level. It follows that neither State credit alone nor co-operative credit alone is the proper solution. Dr. Brandão's opinion that Professor de Vries's first approach should be worked out in more detail seems to be justified. In this respect the Brazilian experiences he described are very instructive. When I worked with a F.A.O. project in Pakistan we came to similar conclusions. They were, first, that credit help for small holdings in under-developed countries could promote agricultural progress only if used systematically for productive purposes. It is necessary, therefore, to give such credits not directly to individual peasants but to channel them through co-operative societies which see to it that the credits are actually used productively. A combination of State and co-operative credit perhaps as described by Professor Brandão may count as a similar approach. Secondly, it is necessary to have co-operative credit linked with co-operative marketing so as to achieve greater certainty of repayment. Thirdly, it is necessary systematically to work out development plans for the progress of small holdings, and to provide credits on the basis of such plans, not directly to the individual holdings, but through co-operative societies. Supervision and extension service, as mentioned by Professor Brandão, must go hand in hand with credit help if small farms in under-developed countries are to be improved.