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PROCEEDINGS OF THE
TENTH
INTERNATIONAL CONFERENCE
OF
AGRICULTURAL ECONOMISTS

HELD AT THE
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AGRICULTURE
AND ITS TERMS OF TRADE

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WORK GROUP REPORTS

Annovation at this Conference was the establishment of eight work groups to facilitate discussion among the members on subjects of mutual interest. Each member was asked to say which of the following subjects he would prefer to discuss: extension programmes; extension methods; farm management research; marketing research; undergraduate teaching; advanced teaching; general agricultural economic policy and theory. In accordance with their replies three groups were formed on policy, two on farm management and one each on extension, marketing, and teaching, each group having a chairman, a secretary, two consultants, and about twenty participants. The groups met for four half-day sessions.

The general procedure was for each participant to introduce himself at the first session indicating his place of work and professional interests, and suggesting topics for discussion. The next two sessions were devoted to the chosen topics, everyone being given an opportunity to express his views. The fourth session was used to summarize the discussions by reviewing reports prepared by the secretaries, first within each group and then with all groups together. *Résumés* of these reports are as follows:

GROUP IA. AGRICULTURAL POLICY

Chairman. W. J. Thomas, U.K.

Secretary. J. Carroll Bottum, U.S.A.

Consultants

L. Malassis, *France* K. U. Pihkala, *Finland*

Participants

W. J. Anderson, <i>Canada</i>	K. Mukerji, <i>India</i>
W. H. Beckett, <i>U.K.</i>	Yair Mundlak, <i>Israel</i>
C. M. Castillo, <i>Mexico</i>	E. F. Nash, <i>U.K.</i>
M. Cépède, <i>France</i>	P. Negron Ramos, <i>Puerto Rico.</i>
J. J. de Valois, <i>(U.S.A.) India</i>	E. R. Nobre, <i>Brazil</i>
R. N. Gleason, <i>(U.S.A.) India</i>	A. Panattoni, <i>Italy</i>
S. Islam, <i>Pakistan</i>	P. K. Ray, <i>(India) F.A.O.</i>
D. Gale Johnson, <i>U.S.A.</i>	K. Ringer, <i>Germany</i>
A. M. Khusro, <i>India</i>	Elton M. Smith, <i>(U.S.A.) Turkey</i>
T. Misawa, <i>Japan</i>	T. H. Strong, <i>Australia</i>
A. Moarefi, <i>Iran</i>	H. R. Varney <i>(U.S.A.) Indonesia</i>
J. R. Motheral, <i>(U.S.A.) Pakistan</i>	Alfredo Weiss, <i>Uruguay</i>

Three spheres of policy were considered: economic development, land reform, and problems of international trade. Since World War II

the opinions of agricultural economists and planners have passed through three phases. In the first it was supposed that industrial expansion would assure the economic development of under-developed countries, and that it would do so in a relatively short time. The second phase placed more stress on agricultural development—not so much for purely economic reasons as because political stability was seen to be a prerequisite of economic progress; and agrarian unrest must be allayed by adjustments in the agricultural sector.

The third and present phase emphasizes agricultural development strongly, principally because experience indicates that agriculture, in the main, must be used to finance total development. Concurrently, greater interest is being shown in what is generally known as social welfare.

Increased productivity per worker in agriculture is necessary except where agricultural products are available for export, with simultaneous development of industry and a flow of labour to industry. But whether the required investment capital can be procured first in agriculture or in industry depends upon the conditions in any particular country. Where oil or minerals are available, for example, conditions are favourable for industrial development. But this is exceptional.

Recognizing that capital was essential to continued economic progress, the group devoted much time to discussing ways of accumulating it at various levels of economic development. In communities at a low level of development and with a high proportion of the population engaged in agriculture, capital would have to be found mainly in the agricultural sector. In these cases it is as important to consider the institutional framework for capital formation as it is to determine the correct priorities for investment. Substantial amounts of capital have been accumulated even within relatively poor agricultural societies. Some institutions, however, such as landlordism of the exploitative type have been a hindrance.

Recent experience of under-developed countries shows that village savings societies have had conspicuous success in some places. Systems of taxation in general are rudimentary. Direct taxation yields little. Indirect taxation, if carried too far, checks production. India, however, was able to finance its First Five-Year Plan satisfactorily through deficit financing. This did not lead to severe inflation in the initial year because there had been a series of good harvests. State marketing boards, such as the West African Cocoa Board, have also been successful in amassing large sums for development. Much

depends upon favourable conditions in the world market. In view of the paramount need for capital, all these ways should be considered by a country embarking on development programmes. For rapid development extraneous sources of capital have usually to be found.

Community labour schemes met with general approval. Labour is often in surplus supply and projects such as simple irrigation, village housing, or schools require little in the way of capital goods which is not generally available in rural communities.

A good deal of scarce capital may have been wasted. Instances of corruption in administrative machinery, over-investment in urban development, too rapid investment in luxury goods and welfare schemes for urban populations were cited. At a high stage of development, acquisition of sufficient capital still presents a problem. Co-operative banks have done well in Scandinavia, France, and elsewhere. But there is a danger, even in advanced countries, of directing too much capital to the non-agricultural sector. Too much capital went into the non-agricultural areas of Australia and Argentina immediately after World War II. In considering the priorities for investment in agriculture, it has been suggested in the general session that large capital works, such as the erection of dams and irrigation works, should have first priority, followed by general education. Some members, however, thought that smaller projects of irrigation, schemes for improving advisory work so as to lead to better farm practices and the development of village industries, should take first place as they required less capital and gave more rapid results. Each situation, evidently, has to be judged independently. In some advanced stages of development where one of the main objectives of policy is to achieve income parity between agriculture and non-agriculture, the problem seemed to be one of saving farmers from economic exploitation.

In discussing land reform the group distinguished between two major objectives: reform as a means of raising output in under-developed countries and reform as a means of obtaining greater equality between landlords and tenants. When economic circumstances called for reform of land tenure or of the size of farms it was unwise to delay.

Most of the members from under-developed countries supported the view that land reform was a prerequisite of economic development in agriculture. Ownership was the best system of tenure. Landlordism as it had been known in the past was associated with absenteeism and with impoverishment of tenants. Landlords differed socially and politically from cultivators, so political emancipation

was equally important. Ownership was said to bring greater incentives for individual initiative and diligence.

Some doubts were expressed. Some landlords in the past had been the leaders in agricultural improvement. In Egypt and Korea, for example, landlords had been better educated than the peasants and had given them valuable advice and often capital. The removal of the landlords had been followed by a fall in productivity. The view was expressed that a change to owner-operation in areas where tenancy had been tribal was a large step which might well lead to the misuse of land. Here, at least for a period, a co-operative or other type of tenure might be more appropriate. In some advanced economies a landlord-tenant system has a good deal to recommend it. In some countries owner-occupation was making entry into agriculture difficult and retarding necessary changes in farm size. In Europe, governments in some cases, notably in Sweden, had embarked on programmes to increase farm size by purchasing blocks of land and splitting them into new farms; but ownership may not be the only cause of slow adjustment in farm size. Land reforms should be supplemented with appropriate educational efforts. In the United States of America agriculture is composed mainly of family farms and adjustments in farm size have been more rapid than in most countries.

Turning to international trade it was recognized that an important problem existed. Under-developed countries were attempting to obtain development funds through increased agricultural exports, while agricultural exporting countries were already in difficulties from surplus supplies, and many food deficit countries were attempting to become more self-sufficient agriculturally. Multilateral and bilateral agreements were discussed and there was no general agreement on policy. The view was expressed that in many cases arrangements would continue to be worked out on a bilateral basis. Some regarded the International Wheat Agreement as a pattern; others felt the difficulties of establishing workable allotments between the various exporting countries were insurmountable. The problem of upsetting the sterling and dollar balances was pointed out.

GROUP IB. AGRICULTURAL POLICY

Chairman. F. G. Sturrock, U.K.

Secretary. M. Yudelman, U.S.A.

Consultants

C. Fernando, Ceylon J. P. Bhattacharjee, India

Participants

G. Beltran, <i>Venezuela</i>	J. L. Joy, <i>Uganda</i>
K. Brandt, <i>U.S.A.</i>	H. B. Low, <i>New Zealand</i>
W. E. Cave, <i>U.K.</i>	E. Mendoza, <i>Venezuela</i>
M. L. Dantwala, <i>India</i>	P. K. Mukherjee, <i>India</i>
N. K. Desai, <i>India</i>	W. H. Nicholls, <i>U.S.A.</i>
P. N. Driver, <i>India</i>	O. Schiller, <i>Germany</i>
C. R. Eskildsen, (<i>U.S.A.</i>) <i>India</i>	S. Schmidt, <i>Poland</i>
S. von Frauendorfer, <i>Austria</i>	P. M. Scola, <i>U.K.</i>
U. Aye Hlaing, <i>Burma</i>	N. B. Tablante, <i>Philippines</i>
V. C. Johnson, (<i>U.S.A.</i>) <i>India</i>	O. J. Wheatley, (<i>U.S.A.</i>) <i>Pakistan</i>

Three topics were discussed: land reform, particularly in India, price stabilization, and rural credit. At each session the discussion was introduced by two or three members who gave brief accounts of the methods used in their own countries. This was followed by a more general discussion dealing with the principles that could or should be adopted by governments and other bodies in implementing the policies. As only a few of the policy statements can be described here, preference has been given to those from Africa and Asia which were nearest to the site of the Conference.

Land reform. Most attention was given to changes in India. One form of tenure—Zamindari—has been entirely abolished. The Zamindar was in origin a kind of hereditary tax collector who had developed many of the characteristics of a landlord. Ownership of the land has been acquired by the State which now collects rent from the tenants. A tenant can purchase ownership rights if he wishes. The former owners have meantime received bonds as compensation for their loss of rights. The value is in each case a multiple of the rental value, a lower rate being paid for larger estates.

Apart from this type which is peculiar to India there are many tenants of the usual kind. Because the pressure on the land is so great rents, which are in kind, tended to be high—up to 50 or 70 per cent. of the produce. These rents have been cut by legislation to a quarter or less. The landlord, moreover, is restricted in the amount of land that he can resume for personal farming and must leave the tenant a minimum area. Two other features were of particular interest to the meeting. One is that when landed estates are purchased in future, their size is being limited to three times the size of a

subsistence holding (one producing about Rs. 4,000 or 5,000 a year). The other is that steps are being taken to enable the tenant, if he wishes, to compel the landlord to sell the leased land.

Although evasion occurs in some areas good progress is being made in reforming the system of tenure. It was generally agreed that a number of these measures provided a pattern that could well be copied in other countries with similar problems. It was considered that when there was heavy pressure on the land, a rental system could be oppressive to the tenant who might be compelled by competition to pay too high a proportion of his output. Legislation to limit rents is often ineffective. In these conditions, peasant ownership may be the only equitable solution. On the other hand, in more developed countries a rental system can have advantages. In particular, it reduces the capital requirements of new farmers and if compensation is paid for improvements carried out by the tenant, it can ensure as high a standard of husbandry as owner-occupation.

Price stabilization. Most attention at this session was given to the experience of Uganda which provided an example of the problems of expanding cash crop production in an under-developed country. Price control was introduced as part of the war-time bulk purchase arrangements. The Government became the sole purchaser of cotton and coffee and guaranteed a price to the grower. Processing was done by private firms for a fixed margin. The scheme has worked reasonably well although the 'cost plus' system of paying the processors has sometimes been overgenerous. The Government tended to pay the grower somewhat less than the world price—partly to avoid trading losses, partly to control inflation and partly to accumulate a fund to maintain price stability in future. Part of this fund has also been used for capital development. Although these two schemes have been successful, others have been less so. Maize prices were at one point fixed too high. This resulted in over-production and the discontinuance of price control.

This account was followed by a discussion of policies pursued in Venezuela where rapid development is taking place. The large sums received for oil exports and for capital expansion are apt to cause inflation and could lead to instability in farm prices. This has been held in check by price stabilization.

The price policy of the United Kingdom was then cited as an example of a fully developed country that wishes to provide stability for a small farming industry, partly for strategic reasons. The chief aims have been two in number. First, farmers' incomes as a whole have been stabilized. Second, prices have been manipulated to

produce the amount of produce that is deemed to be in the national interest.

A fourth example was Poland. There the problem was to ensure deliveries of grain to towns during a period of reconstruction and industrial expansion. The policy was to give quotas to collective farms. The quotas were paid at fairly low prices and any excess over this could be sold on a different market usually at a higher price. The general effect was intended to provide two incentives. The first which was administrative was to fulfil the quota. The second which was economic was provided by the high price paid for the surplus over the quota. As conditions have improved, the size of the price differential has been reduced.

In subsequent discussion, it was decided that the advantages of price stabilization to the farmer were obvious. In particular, it protects him against the worst forms of price fluctuation due to the relative inelasticities of supply and demand in agricultural production. From the point of view of government price stabilization also has substantial advantages. It can help to control inflation and it can assist food rationing in wartime. The chief disadvantages are that the Government may be tempted to fix prices above the long-term equilibrium level thus stimulating uneconomic production and diverting resources from better uses. It was also emphasized that if public funds were to be expended in farming, there were advantages in paying some of it at least as a reward for improvements rather than merely as a prop to the minimum price. It was also suggested that where the Government shoulders the risks of price fluctuation, the premium to be paid by the community may well be less than would be required by individual producers to engage in production in a very unstable market.

Credit policy. Again, the chief attention was given to India. In the past, village money-lenders have provided a large part of the credit available to the peasant. This has had the usual disadvantages of high rates of interest and loss of economic freedom by the cultivator. Much attention is now being given to the encouragement of co-operative credit societies. These have been in existence for many years but have not always been as widely used as might be desirable. Many of the village societies were too small to employ a secretary and lacked sufficient reserves to provide effective competition to the village money-lender. Acting on the recommendations of the Reserve Bank's Rural Credit Survey, the Government has decided to adopt a form of State partnership with the co-operative movement. This has taken the form of supplying up to 50 per cent. of the capital

required for credit banks and large-scale primary credit societies. The State also appoints one or two directors to the boards to help to direct policy. The latter is necessary because loans are to some extent being used as a form of rehabilitation subsidy. These schemes are working reasonably well although it is notable that recently there has been a revival of interest in small village societies which have a useful part to play.

The subsequent discussion ranged over policies in the Philippines, Germany, the Scandinavian countries, and the United States. It was agreed that the principal difficulties in issuing credit to farmers were first to obtain security, and secondly to ensure that the loan was used wisely. To overcome these difficulties, supervised loans have been successfully used. If a budget is prepared, the lending agency can attempt to assess the amount required, the likely date of repayment and the prospects of the farmer. The main difficulty is the supply of experienced staff who can prepare such farm plans and the supervision of repayments. Sometimes, however, this task can be made easier if loans are issued through a credit society that is linked with a marketing society. It was also agreed that although the State should try to prevent extortionate rates of interest, the setting of abnormally low rates was not necessarily in the national interest (except in special cases) and could lead to the misuse of scarce capital resources.

GROUP Ic. AGRICULTURAL POLICY

Chairman. L. Napolitan, U.K.

Secretary. S. O. Berg, U.S.A.

Consultants

F. M. Sacay, *Philippines* K. S. Rao, *India*

Participants

R. Aktan, <i>Turkey</i>	Margaret McDonald, <i>U.S.A.</i>
O. Aresvik, <i>Norway</i>	G. Montgomery, (<i>U.S.A.</i>) <i>India</i>
J. R. Bellerby, <i>U.K.</i>	N. A. Mujumdar, <i>India</i>
R. Benalcazar, <i>Ecuador</i>	V. I. Nazarenko, <i>U.S.S.R.</i>
R. Bićanić, <i>Yugoslavia</i>	M. S. Niaz, <i>Pakistan</i>
H. C. M. Case, <i>U.S.A.</i>	K. Ohkawa, <i>Japan</i>
C. V. Dawe, <i>U.K.</i>	E. M. Ojala, (<i>New Zealand</i>) <i>Thailand</i>
H. de Barros, <i>Portugal</i>	D. Paarlberg, <i>U.S.A.</i>
B. P. Dutia, <i>India</i>	S. B. Rangnekar, <i>India</i>
P. Gittinger, (<i>U.S.A.</i>) <i>Viet-Nam</i>	A. M. Saco, (<i>Chile</i>) <i>F.A.O.</i>
M. H. Gopal, <i>India</i>	R. Savary, <i>France</i>
T. N. Hurd, <i>U.S.A.</i>	R. Stisser, <i>Germany</i>
V. M. Jakhade, <i>India</i>	V. von Arnim, <i>Germany</i>
I. S. Kuvshinov, <i>U.S.S.R.</i>	L. Witt, <i>U.S.A.</i>
B. N. Kristjanson (<i>U.S.A.</i>) <i>Iran</i>	J. A. Wynne, <i>U.K.</i>

The group's main interests were in land reform, economic development and regional planning, price policy, and international trade. Over-population was considered to be a critical problem.

Land reforms were grouped into those which resulted in subdividing and redistributing the land and those which aimed at creating larger units. After World War II, the purpose of a wide land reform in Japan was to enhance owner-operatorship. Fixed levels of rent were established; absentee landlordism abolished; landlords compensated for land acquired by Government on the basis of average productivity capitalized at average rates of interest; holdings limited to from 3 to 5 hectares; and improved farming techniques disseminated. Rents have been reduced from 40 or 50 to 5 per cent. of gross income; and owner-operatorship, in terms of land, has increased from 50 to 90 per cent. Agricultural productivity since land reform has been stepped up markedly, rising from 1 or 1½ per cent. per annum before the war to 2½ or 3 per cent. after it.

In Yugoslavia five major reforms have characterized man's relation to land over the last 200 years, three of them occurring in the last forty years. In 1918 reforms reduced the size of holdings and distributed land to the landless. Maximum holdings were set at 500 hectares; in 1945-6 at 30 hectares; in 1953 at 10 hectares. Each time there was a drop in production, owing partly to the fact that inexperienced operators were placed on some of the new holdings. This was in contrast to the experience in Japan where, in the main, the same operators continued working the same land but with reduced rentals or newly acquired ownerships.

In India, in addition to government acquisition of land with compensation, a unique movement has developed under which approximately 4 million acres have been voluntarily given to new small land-holders.

In Italy some holdings after reform were too small for optimum productivity. The reform had many political and social overtones, however, couched in the social problems of the immediate post-war period. In Norway, too, the splitting of farms may have gone too far. The plea here is that agricultural economists should look at the long-term problems of distribution of income, savings and investment that accompany land reform.

In Russia it was not until 1917 that reforms of major magnitude were instituted. All large holdings were socialized, but small plots (1 or 2 acres) were distributed to individual peasants by government. This tended to intensify the problems for the number of small holdings rose from 13 million in 1917 to 25 million in 1929. Moreover,

there were too many people in the villages, and unemployment rose. Meanwhile, the experience of the large co-operatives and of the State farms demonstrated that large farms promote great efficiencies in the use of machines and fertilizers, that new techniques are more readily adopted on them, and the problem of unemployment solved. Development along this line was bolstered by the availability of large-scale farm machinery, first on an import basis, later by Soviet manufacture.

It was considered that there was some lack of definition in the objectives of land reform and in evaluating its results. Agricultural economists should be able to contribute a good deal to fill this gap.

The Indian land reform programme was taken as a basis for a discussion on problems of evaluation. Relying on available farm management data three methods were used in India for establishing sizes of individual holdings: (1) after standardization for innate fertility, the establishment of a unit at an economic optimum level of operation using known production techniques (this, under proposed conditions, would give rise to an income of 1,200 rupees a year); (2) the 'plough unit', i.e. the amount of land a pair of bullocks can handle; and (3) the 'family farm unit' which provides full employment for an average family in a cycle of agricultural production. In all cases, the maximum size of holding would be three times the size of one of these basic units.

Some comments were:

1. That in India the abolition of the intermediaries in agricultural trade, security of tenure, and the fixing of rent were as important in land reform as the establishment of owner-operatorships.
2. That land reform might have as its objectives many different goals such as the employment of people, as in Yugoslavia; security of tenure through various shading of tenant-landlord-owner relationships over time, as in Ireland; the attainment of social equality; improved distribution of income; or the abolition of private landownerships.
3. That land reform brings about changes in the operator himself which lead to the adoption of new techniques and the like.
4. That establishing ceilings on size of holding is a static approach and does not take into account new technology.
5. That the question is not only one of maximizing production but also of minimizing losses; as, for example, when a farmer-co-operative or the Government takes over an irrigation system upon the splitting up of a large estate.
6. That in some countries, such as Japan and Taiwan, there is no

opportunity to manipulate size of holdings. Reform merely transfers ownership of existing units.

7. That land reform is frequently accompanied by supplementary programmes (new credit institutions, extension services, irrigation projects, and the like) as in Mexico and the Philippines.

8. That reforms may not—in fact, do not—only enhance returns to farmers. The increased supplies, which are associated with somewhat inelastic demands for food mean that the consumers benefit through lower prices.

On the subject of economic development and regional planning the problems were divided into those of the more fully and those of the less fully developed countries or regions. Within each category, participants (1) presented broad economic problems, primarily agricultural, upon which governmental and other forces had focused; (2) described the remedies proposed or implemented to alleviate the apparent maladjustment; and (3) made some evaluation of results and of the applicability of their measures to other areas of the world. This is greatly simplified when objectives are clearly defined.

Most Scandinavian countries have been under the pressure of full employment and extensive capital formation since the war. The distribution of income has been more even. The proportion of the population in agriculture has decreased. Productivity in agriculture per man-hour has increased. If farming incomes are to be maintained, however, there must be further migration of labour, an increase in size of holding and a reduction in marginal land in forest.

Moreover, price supports have provoked some maladjustment in resource use. Surpluses have appeared and have been disposed of at prices below support prices. This has happened in the United States and, to some degree, in the United Kingdom.

In Scandinavia there are the usual policies sponsored by government to increase efficiency. In Sweden there are policies aimed at increasing the size of holdings. In the process, government support for certain small farms continues for the present operators, but not for their successors. Moreover, wherever the sale of small units could increase the size of existing holdings, the Government can assist by making grants. Policies to assist the movement of labour to urban areas are likely to continue.

In the United States the number of farms has decreased rapidly, but development has been uneven. One-half of the farms account for 90 per cent. of the total marketed production. One-fourth of the farms have incomes of less than \$1,000 each. The Government assists

people whose opportunities in farming are limited but who want to stay in it. To assist them, off-farm employment is fostered by decentralizing small-scale industries, establishing co-ordinated employment services, promoting vocational training, &c. This is financed in part by federal funds but largely from local sources. The plan is being tested in 175 of the 1,000 counties. Other programmes assist farmers to expand to full-time operations or to transfer out of agriculture.

There are many problems in South American countries, such as Ecuador and Peru, as well as in Asian countries. *Per caput* incomes are low. There is under-employment in agriculture and unemployment in the cities. Investment capital is lacking for industrial development as are export earnings which might assist in developing local industries. There is a basic need to increase employment in rural areas and to lessen risks and uncertainties in the present farming systems. Extension services do not reach the small holdings. Education is limited and there is little employment for poorly trained people.

Agriculture in the Philippines under the dual aims of producing enough food for its population and of improving and expanding the production of export commodities, has benefited from special programmes. Credit facilities have been made available and assistance given to small farmers. Efforts have been made to curb usury and other unscrupulous trade practices. Price supports have been extended. Subsidies have been provided for certain farm requisites, such as fertilizer. Land reforms have increased the tenants' share of the crops and redistributed land in large estates. Irrigation systems have been established.

While the group did not attempt to reach agreement, certain conclusions emerged.

1. The movement of people from rural to urban areas in gainful occupations is limited by general economic development.
2. Increase in production is highly desirable for people who remain on farms (by more or better fertilizers, seed, irrigation, &c.).
3. Basic education is important.
4. In less fully developed countries it may be possible to supplement income through rural arts and crafts. There is scope for improving standards of living by decentralization of industry.
5. Opportunities exist for using under-employed labour in rural areas for the formation of social capital in the form of roads, schools, and hospitals.

6. Rural people should participate in the planning of development programmes.
7. Rural development must be accompanied by long-term land policies.
8. In order to achieve these objectives, it is necessary to plan comprehensively rather than piece-meal. Many countries are approaching this problem through long-term planning procedures. This makes great demands on our profession.

GROUP II. EXTENSION

Chairman. S. T. Morris, U.K.

Secretary. M. Altar Hussain, Pakistan

Consultants

Frank V. Beck, U.S.A. R. Van Hees, Netherlands

Participants

M. Aquil, <i>India</i>	A. J. McIntyre, <i>Australia</i>
P. C. Bansil, <i>India</i>	B. Mista, <i>India</i>
H. W. Beers, (<i>U.S.A.</i>) <i>India</i>	I. G. Reid, <i>U.K.</i>
H. R. Capener, <i>India</i>	J. P. Ribeiro, <i>Brazil</i>
M. de Bobone, <i>Portugal</i>	M. Rolfes, <i>Germany</i>
A. C. Felder, <i>India</i>	S. P. Sinha, <i>India</i>
F. Gerl, <i>Germany</i>	V. P. Sotnikov, <i>U.S.S.R.</i>
J. S. Guleri, <i>India</i>	Mrs. G. Ward, (<i>U.S.A.</i>) <i>Lebanon</i>
R. F. Lord, <i>U.K.</i>	N. Westermark, <i>Finland</i>
H. W. B. Luxton, <i>U.K.</i>	

Topics for discussion were selected with the thought that while extension is primarily concerned to raise the efficiency of farming, it is aimed also at bringing about the well-being of the farm family.

Extension machinery or agency. Participants from U.K., West Germany, Finland, U.S.A., India, Brazil, and U.S.S.R. described briefly the existing extension machinery in their countries. Reference was also made to extension agencies in some other countries and their salient features discussed.

In the U.K. the extension service is known as an advisory service and is provided by the Government and the universities. The country is divided into ten regions. Each has a set of specialists, who are civil servants except the agricultural economists who belong to university staffs. Incidentally, the economists have themselves chosen to stay out of civil service with a view to preserving the farmers' confidence.

In West Germany, in the main, government and semi-government

institutions known as Chambers of Agriculture provide extension. Recently the staffs of rural schools have been strengthened to make the service more effective. In north-western Germany where the farms tend to be large, besides the normal extension service, the farmers sometimes appoint their own advisory agents.

Finland has two sets of extension service in each of its twenty-one districts. Although overlapping to some degree, both are financed by the State to the extent of 50 per cent. On paper, one set is designed to approach the farmers and advise them in a general way while the other, which is manned by a more specialized staff, is approached by enlightened farmers for advice. There is no distinction as to which set is meant for whom.

India's extension service was started on a regular basis in 1952. Previously all attempts were scattered and limited. It is entirely official and is known as the National Extension Service. It is part of the Five-Year Development Plans and the money is provided by the central government. The country is being divided into groups of about 100 villages each, called Community Development Blocks, each block having a team of specialists seconded by Provincial State Development Departments. Each block is divided into sectors of about ten villages for each of which a village-level worker is appointed after being trained in extension for about six months. Much the same pattern prevails in Pakistan.

In the U.S.A. extension service is provided jointly by the federal government, State and local governments and is attached to the land grant colleges. The field work is carefully co-ordinated to maximize efficiency. The service is open to two-way traffic; it reaches the farmers and enlightened farmers reach it. The general pattern of service in all states is more or less the same, but the proportion of finances contributed by each of the co-operating agencies varies in various states and localities.

Brazil depended on an official agency for advisory service until 1949. Presently however, the extension work has been entrusted to a new agency, called A.C.A.R. in the State of Minas Gerais, financed by the State and the American International Association. There are other agencies with different names but with similar arrangements in most of the other states. They are financed by the states and private institutions dealing with lands, industries, and commerce. These agencies are free to adopt their own lines of action. The service is combined with supervised rural credit.

In the U.S.S.R. extension machinery is run by the State and makes great use of demonstration farms and demonstration plots.

These reviews reveal that extension services are generally provided and financed either partly or wholly by governments. The participants considered it desirable to make use of the local socio-economic institutions and to adapt research, education, and extension to a unified approach.

Extension methods. Several methods of extension were discussed, all of which could be placed in three categories.

- (a) Personal approach.
- (b) Group approach.
- (c) Mass approach.

Different means could be applied to one or more of each of these categories. For the personal approach, for instance, farm visits, telephone calls, and correspondence would be appropriate. The group approach would be through meetings (preferably followed by informal discussions) and activities of social institutions. Masses could be reached easily through publications, news articles and circular letters, radio and television, films, displays and demonstration plots and demonstration farms. All or as many of these methods as possible should be used. Some of them, such as T.V. or radio, might not be available, particularly in under-developed countries, but other means could be devised.

It was recognized also that the personal approach was likely to be more effective, though it was limited by the time and expense involved. In the stages which precede actual success in extension work, namely, awareness, interest, trial, practice and decision, much use could be made of group and mass media. They are particularly useful in the earlier stages.

The personal approach was considered most effective at all stages in under-developed countries, and it was recommended that so far as possible the methods should be co-ordinated with a credit service or with agencies assisting the cultivators to acquire the means with which to adopt the recommended practices.

Problems facing extension workers. The biggest problem of the extension worker is to overcome the unresponsiveness which prevails in developed as well as undeveloped countries. The weaker farmers are the slower to respond to extension. It is discouraging, though challenging, to talk to the same person many times without obtaining an adequate response.

Another handicap of the extension worker at village level in some countries is that he does not have a position which would entitle him to command respect and confidence in the community.

He is disregarded by the village and is looked down upon by the specialists and administrators to whom he looks for guidance. Frequently he is balked, more so in under-developed countries, for want of timely supplies of seeds, fertilizers, machinery, or equipment when he has persuaded farmers to use them. This not only embarrasses him but prejudices his future recommendations and plans. Admittedly, extension workers sometimes make recommendations which are of doubtful merit or beyond the means of the farmers. Programmes that are not feasible under existing conditions should not be advocated. Extension workers suffer too in not everywhere being fed with new knowledge. The material they are given is frequently expressed in too highly scientific language. They are usually required to make two types of approach which are not always consistent. One, under pressure from specialists, is to aim at achieving certain targets, while the other is to respond to the felt needs of farmers. A solution of this difficulty is to be found, perhaps, in encouraging an exchange of views between enlightened farmers and specialists.

Persistent attempts should be made to select really competent workers who are willing to adopt a missionary spirit rather than to be discouraged after a few unsuccessful attempts, and to raise their status as high as circumstances permit. Their recommendations should be of established merit, technically sound and economically feasible. Their programmes must be supported with adequate supplies and equipment. Rural communities in general have low purchasing power.

Extension training. In the opinion of the group, specialists should be given both extensive and intensive training. They should remain in touch with the latest research and be prepared to help the village-level worker in under-developed countries. In countries having highly developed economies, however, the level of training of the extension worker should be gradually raised so that he can deliver the more advanced results of research.

The village-level extension worker should be a practical man with drive and initiative. He should be capable of understanding the sociological outlook of the communities with which he works. He should be trained primarily to analyse and understand people's needs and their learning processes so that he may prove more effective. The group attached much importance to preliminary sociological surveys of areas where extension programmes are to operate with a view to finding out their estimated needs and the possibilities of meeting them. The training in general should be fitted to the back-

ground of the personnel to be trained. This would suggest starting with people who believe in helping people to help themselves.

GROUP IIIA. FARM MANAGEMENT RESEARCH

Chairman. C. E. Bishop, *U.S.A.*

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E. Kristensen, <i>Denmark</i>	G. Weinschenck, <i>Germany</i>

The group concentrated its attention on practical rather than theoretical problems. Some members were interested mainly in how to start farm management work, others in discussing recently developed methods of farm management research. It was agreed by all that the basic function of the work was to provide information for decision making, either for a farm as an independent unit or as a part of a country's economy. The following subjects were proposed:

1. The approach to farm management work for individual farms when:

- (a) Little, if any, data are available for representative farms.
- (b) Some data from experimental farms are obtainable.
- (c) Accounts in addition to experimental data are available from advanced farms.

2. Research needed when there is under-employment and bad utilization of resources.

3. Problems of diversification of production, and of vertical integration.

4. Optimum size and type of farming.

5. The effect of industrial development on farm management.

6. Income-consumption decisions of farmers in less developed countries.

7. Land reform and farm management.
8. How to get data on farmers' responses to price fluctuations.
9. How to procure resources for farm management research.

Two different approaches to farm management in less developed countries, where data are scarce, were proposed. First, to carry out a random sample survey by areas, stratified if possible into geographical regions or according to some other aspect important to agriculture. The survey should aim at giving elementary knowledge on size of farms and fields, of labour force and of the main agricultural inputs and outputs; elaborate details are not necessary, but a picture is needed of how conditions vary. The differences will give a starting point for judging what should be done. Often it would be best to try to increase yields—in less developed countries there is as a rule a high correlation between yield and net income. Secondly, to start with experimental farms and case studies. It may be possible to find suitable farms without making surveys first. It takes a long time, however, to make such a farm efficient enough to provide technical data for general application.

Discussion of input-output data led to the conclusion that data pertaining to limiting factors are of main interest. Sometimes this is labour, sometimes land, and sometimes the farmer's lack of knowledge. A special situation often arises in subsistence farming where, for instance, an increase in price may result in a smaller proportion of the crops being offered for sale, thus permitting extended food consumption by the farmer's own family. Under such conditions maximization of satisfaction is approached by raising the nutritional welfare of the farm family.

Some doubt arose on the value of cost of production calculations. They were considered useful for making index-series and for a better understanding of how the economy functions, but much time was devoted to ascertaining what use they could be to the individual farmer. Three different cases were considered:

- (a) Minimizing cost of production for one given crop.
- (b) Facilitating intelligent choice between crops within a given farm.
- (c) Assisting in making a choice between farming and non-farming.

In the first two cases it is not necessary to calculate more than variable costs in as much as minimizing short-term costs for a given crop seems to be the most common and important use of cost of production data. In the second case many factors other than the short-time net income may be decisive. Are the crops complementary or not? What is the long time effect of a given combination of

crops on the farmer's economy? How far is he willing and able to take a risk? What is the effect of a change in land use on the family's nutritional standard? These questions must be taken into account, and they play a particularly important role in regions where subsistence farming is prevalent. Very narrow limitations on choice seem to be a characteristic for that type of farming. In the third case, that of choice between farming and non-farming, opportunity costs have to be taken into account. This is common in many Western countries having surpluses of agricultural products and high employment opportunities in sectors other than agriculture.

Discussion of how to raise funds for farm management research indicated that in less developed countries government obviously has the major responsibility. In highly developed countries initiative has often been taken by the farmers themselves through their organizations. The main thing seems to be that the practical usefulness of research should be well demonstrated both to individual farmers and to government.

GROUP III_B. FARM MANAGEMENT RESEARCH

Chairman. H. W. Ottoson, *U.S.A.*

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A. Gonzalez Santos, <i>Mexico</i>	

Topics for discussion were grouped in three main categories:

1. Outstanding problems in under-developed countries and the principles and tools of farm management for all countries.

2. New techniques in research.
3. The relation of farm management research to extension and teaching.

Owing to the limited time and the predominant interest of most of the group in the first subject, it was the only topic covered, though implications of the other two were touched upon.

Discussion was started by the representatives of each under-developed country reporting on the present status and problems of farm management research. This revealed several general problems common to all under-developed countries which are at an early stage in this work. These include:

1. Size of farm. What constitutes a minimum size? How can farmers with small farms make satisfactory contacts with larger business?
2. Farm finance, so often inadequate to meet existing needs.
3. Off-farm opportunities for farm workers.
4. Input-output analyses to indicate inputs which may give rapid increases in yield and total production, e.g. the economics of fertilizer use.

Several items of methodological importance were also found to be more or less common:

1. Difficulty in obtaining data for farmers. (*a*) This problem is magnified because most farmers do not keep records. (*b*) The lack of complete lists of farmers or cartographic material makes sampling difficult. (*c*) The concentration of farms in two extremes, resulting in a bimodal size distribution with a wide range of variability, makes the sampling design difficult. (*d*) The illiteracy of farmers complicates data gathering.
2. Differing objectives of farm management research. To improve managerial ability and farm incomes on small farms was of general concern. Often, however, the criterion of proper maximization is not sufficient as a sole objective. Some farmers may not be interested in increasing incomes because it may be conspicuous or because it may decrease time available for festivals or other activities regarded as essential. This has important implications. For example, in budgeting analysis, farmer time may have to be reserved for such uses. At the same time national policies call for more food production; therefore, the job remains of devising more efficient means of increasing volume of food production (and consequently farm income) through farm organization changes and added inputs.
3. Dual use of farm management data. The fact that farm management data are used for both policy decisions and managerial decisions

means that more data need to be collected than would be the case if farm management were the only objectives. Also more types of analysis are required.

4. The role of theory calls for flexibility. The need for adjusting economic theory to the conditions of each country. There may also be need for new formulations as, for example, concerning capital accumulation.

5. Available analytical techniques must be selected cautiously. Budgeting techniques should be very useful in analysing alternative enterprise combinations and other adjustments. Linear programming should be used discriminately; it does offer a tool more precise than budgeting, however, for evaluating the efficient use of scarce resources such as land or capital.

6. Problem formulation must be kept simple and direct. Countries at the early stage of farm management research should not try to investigate and solve all problems at once. Instead of gathering complete data for a few farms, it may prove more profitable to cover more farms in less detail. In that way general problems can be defined and used as a good basis for further study. Problems needing research can be detected by travelling in the study area and talking to the local people. Problems and hypotheses should be formulated carefully, and the data gathered should be relevant to the testing of the hypotheses.

7. Co-ordination of research work by several agencies interested in similar problems could be a good way to intensify research activity. Particularly important in this respect is the co-operation of colleges of agriculture where the students can carry on research under proper supervision, thus reducing costs.

8. The effect of demonstration farms in improving the managerial ability of farmers was discussed, and several examples were mentioned in most of which the method was successful. These farms may also provide research data for management analysis.

9. The village deserves attention. It may be useful as a source of information and may also serve as an appropriate unit for analytical research.

10. Different farm organizational patterns need to be studied and their efficiency and other attributes alternative to individual farms analysed. For example a comparison between co-operative and individual farms, or an analysis of the use of co-operative machinery, were suggested for study in less fully developed situations.

11. Where capital is limited it is essential to study the priorities that should be placed on different types of input.

GROUP IV. MARKETING

Chairman. L. B. Darrah, (U.S.A.) *Philippines*

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C. Chuchart, <i>Thailand</i>	R. V. S. Rao, <i>India</i>
H. de Farcy, <i>France</i>	T. S. Rao, <i>India</i>
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International trade. Members from several countries spoke of the critical importance of international trade problems to their development. The problems were common not only to many under-developed countries, which were often dependent upon single agricultural products for much of their export earnings, but to a number of more fully developed countries which also depended mainly upon agricultural exports, and even to a number of industrialized countries whose balance-of-payments difficulties gave an importance to agricultural exports beyond that which their relative contribution to total export proceeds would indicate.

The effectiveness of international commodity agreements and their applicability to products of under-developed countries was the subject of comment. It was observed that price maintenance by leading exporters had apparently been a more important factor in maintaining price stability for wheat than the international agreement itself. Others felt that such agreements were likely to become associated with rigidities in the allocation of production quotas, both between producing centres and between individual farms, with undesirable effects on efficiency of resource use.

Members from many countries were interested in the question of establishing grading systems for export products. The role of grading

in increasing returns from given markets or in increasing quantities sold was explained by several participants who spoke from the experience of their own countries. Essentially, grading was said to break up the market for a product into separate parts for different qualities, each corresponding to an independent demand, and thus to maximize returns from each part. Total returns would be increased if two conditions were met (*a*) that a different demand existed for the different grades or classes of goods, and (*b*) buyers were prepared either to pay sufficiently more for a graded product or to increase their purchases sufficiently to cover the increased costs of breaking up and distributing the product in a number of grades. The role of differentials for different grades in improving quality was discussed with reference to experience in marketing copra, grains, and several other products. Problems existed however in the selection of grading standards to match buyer or consumer preferences. Research of this type carried out in the United States was cited to show that the views of users as well as technologists were important in considering grade standards. On the question who should be responsible for implementation of grading (governments or industrial bodies) it appeared that privately operated grading systems were successfully operated in respect of some commodities, e.g. Bordeaux wine for the export market, but for most commodities and under most conditions government operation of the grading programme is essential.

Interest in the possibilities of research to assist market development was shown by representatives both of under-developed and of advanced countries where major changes in the retail distribution of food were taking place. The question was what type of research could throw light on these problems. Workers with experience in this field indicated that it was one in which knowledge was limited; there are no available techniques for determining marketing possibilities *a priori*. The job could be approached only by trial and error. Test market areas, in which consumer responses to new grades or new products were observed in a sample segment of the market, were useful. For countries entering the field of market development research, there was much to be said for limiting inquiries initially to relatively simple studies designed to yield data measuring available markets, to assess the determinants of demand for the product, its uses and substitutes, and to provide a clear picture of distribution channels and transport problems. This should precede advertising psychology, motivation research and the like which required highly specialized training and experience.

Internal marketing problems. From members' descriptions in their

respective countries, it became apparent that the objectives of marketing programmes varied considerably between countries and even between different commodities within countries. In Israel, for example, a major objective was to adjust production and imports to desired patterns of food consumption. In India the primary objective was stated to be the reduction of price spreads between producer and consumer. In other countries the objectives were to increase producer incomes or to increase real incomes of consumers.

Recognition of the objectives was essential in any approach to measuring the efficiency of marketing. Economic analysis did not itself yield the criteria or select the objectives. In general terms the essential steps in establishing a marketing programme were stated as :

1. Deciding the goal to be maximized within the limitations of resources or other constraints.
2. Identifying the variables which determine the factor being maximized.
3. Establishing the administrative machinery necessary to permit these determinants to be controlled or manipulated.
4. Finding means to measure the input/output relationships involved, with which the performance in achieving objectives could be assessed.

Attention was drawn to possible inconsistencies of objectives. It was pointed out for example that price spreads tended to widen with increasing specialization of production and with the undertaking of additional functions within the distribution process. A declining share of consumer expenditure going to producers might well reflect this kind of marketing adjustment which could serve to raise producer incomes.

Interest was shown in direct producer-consumer marketing through roadside stands and other means. The experience in North America has been that this type of selling has not been able to stand against competition from the mass distribution organizations. Consequently little recent marketing research in this field has been published there. However, earlier work presented in such publications as the U.S.D.A. Yearbook of Agricultural Marketing may be useful to those interested in direct marketing by farmers. In helping him to make decisions on this question, the essential consideration is the opportunity costs of the time and resources diverted from production. Alternative courses of action, such as through co-operatives, should also be considered.

The integrated nature of marketing systems was stressed. If

changes are introduced in any sector of an established marketing structure it will probably be necessary to make simultaneous changes in other sectors. Failure to do so may make the adjustment ineffective or slow to reach full development.

Co-operative marketing was highly developed in some countries, but not so in others. Amongst the reasons offered for its relative failure in some countries were: (a) Too many producers were tied to specific merchants through credit arrangements; (b) insufficient capital was available to co-operatives; (c) inability of farmers to work together even in communities where group action in other fields was commonly accepted; and (d) difficulty in obtaining management of the necessary calibre.

The lack of success in some countries is due to the fact that the co-operatives merely parallel the existing market organization and do not introduce anything new or different. To be effective a co-operative must enable farmers to use methods or attain a scale of production, procurement, or merchandising different from those otherwise available. Co-operatives often contain the seeds of their own destruction in that success may lead to premiums for non-co-operation. In an attempt to overcome this tendency contracts binding producers to the co-operative for certain periods are used in some countries while in others compulsory marketing through boards has been enforced.

It was mentioned that co-operation had to be saved from its friends. There was often a tendency to develop co-operatives as a cure-all for agricultural problems far beyond any contribution they could reasonably be expected to make. Moreover, co-operation was apparently regarded by some of its proponents as the sole available means of defeating usurers and monopolists. Direct government action to this end was proposed as an alternative. Special problems encountered in various types of research, including the analysis and interpretation of price spreads, were discussed but time was too short for any systematic review of relevant research methods.

GROUP V. TEACHING

Chairman. R. Ahmed, *Pakistan**Secretary.* L. A. Bradford, *U.S.A.**Consultants*S. Krasoveč, *Yugoslavia* J. G. McNeeley, (*U.S.A.*) *India**Participants*A. Antonietti, *Italy*A. A. R. Arian, *Pakistan*U. A. Aziz, *Malaya*Yen Tien Chang, *Taiwan*H. M. Haag, (*U.S.A.*) *Burma*T. Jogartham, *Ceylon*A. B. Lewis, *U.S.A.*M. Mesa Andraca, *Mexico*P. R. Sandoval, *Philippines*U. Tha Hto, *Burma*E. H. Whetham, *U.K.*G. P. Wibberley, *U.K.*F. A. Williams, *U.S.A.*H. T. Williams, *U.K.*

The group reviewed the academic situations in a number of countries and found that wide variations existed in attitudes towards the teaching of agricultural economics—in sequence of subjects, composition of materials within the usual breakdown of subjects, levels of intensity of presentations, availability of teaching materials, methods of teaching, backgrounds and scholastic levels of students, and in the training of teachers. The subject clearly deserved to be considered not only in relation to under-developed countries but also in countries where it had been developed for a number of years. Such consideration would include the problems of adapting the teaching to local conditions, of selecting the particular principles for study, of facing the difficulty of foreign texts and the lack of research material in some countries. Other topics would be methods of teaching, the selection and sequence of subjects, and the development of courses on policy and farm management.

The group paid particular attention to undergraduate teaching, a subject in which there was a difference of opinion between those who preferred to start with a descriptive type of course on the economics of agriculture, and those whose introductory course would be on the principles of economics.

The following arguments were advanced in the course of debate:

(a) Agricultural economics should be taught first because of its basic need in choice-making.

(b) A new implementation is needed to tie theory with the choice-making processes within the under-developed countries. The traditional theory of the firm with its profit maximization assumption and its answers in terms of rationalization of levels of inputs needs

considerable re-examination where subsistence levels of production are the rule and subjective values predominate.

(c) Beginning the study with principles favours learning *what* to think rather than *how*. (There were considerable differences of opinion on this point.)

(d) Many students (especially in the under-developed countries) are drawn from cities and have little or no farming background. They need a descriptive type of course first.

(e) Principles are needed first so as to provide tools for analysis.

Later, there appeared to be general accord on three points. First, that an introductory and somewhat descriptive type of course dealing with the economic aspects of matters pertaining to agriculture might best precede a course dealing with principles in the abstract. Such a course should cover agriculture as an industry and also treat the characteristics and problems of individual farms. Secondly, that the point from which to begin this first course must be indicated by the students' levels, and that it should be developed from their own countries' experiences using data originating from local sources for illustration. Thirdly, that the approaches and texts widely used in western colleges were not well adapted to under-developed countries.

The existing paucity of appropriate teaching materials in under-developed countries indicates that workers there must shoulder the added burdens of developing adapted texts, mimeographs, circulars, and bulletins for class instruction. Survey reports of farm business should serve as a useful beginning. Considerable secondary data, national in scope, are available and need only to be brought into useful form and quantity. Texts written in the more fully developed countries contain many useful chapters particularly those dealing with elementary principles. With these sources and the slowly accumulated experience of earlier workers, mimeographs could be put together quickly and be used as a basis for developing more polished texts at later dates.

The group gave a brief period to a discussion of graduate study (called post-graduate work in many universities). Emphasis on micro- versus macro-analysis appears to be a debatable field for under-developed areas. In essence this reflects a conflict arising out of the crying need for good policy formulations on the one hand, and the equally dire need for farm management analysis on the other. Perhaps there should be different curricula for prospective workers within the two areas. Two types of training are needed: (a) fitting workers for work with farmers, and (b) fitting workers for research, advanced teaching and policy counselling.

The suggestion was made that some attention might well be given at graduate level to the study of philosophy and logic in training workers. There are wide variations in the graduate training offered by different colleges.

While acknowledging that the opinions expressed in this report could not be conclusive, the group claimed to have developed, at least for itself, some understanding of the scope and magnitude of the problems of teaching economics, a generous tolerance of opinions, and a respect for considered points of view. It recommended the establishment of some international body, with adequate resources and time, to consider further the urgent need for improved approaches to the teaching of agricultural economics.

MANILAL B. NANAVATI, *Indian Society of Agricultural Economics, Bombay*

On behalf of the Preparatory Committee I thank you all for appreciating what we have been able to do in connexion with this Tenth Conference. We have been thinking of it since 1947. It took nearly ten years for its fulfilment. Today the sentiments that are uppermost in our minds may be expressed in the words of the Freemasons' toast: 'Happy we meet. Sorry we part. Happy we meet again.' We have assembled here not only for gathering a little knowledge but also for developing such friendship and intimacy as we have realized in the course of the last ten or twelve days. Personally, I attach the highest importance to this—more than to anything else that I can think of. After all, human society lives on human sentiments. If I feel grateful today, it is because of the development of fellowship that I see arising out of our contacts here—in the tea rooms or the Conference rooms or anywhere else. We are all engaged on a very important mission in life—helping the poorest people in the world to raise their standard of living. If we can contribute anything by our help, by our co-operation, and by our fellowship towards the fulfilment of this mission, I think we shall have achieved something; and your coming here from many parts of the world will have been justified. Everyone of us has endeavoured to make the Conference a success not only by way of material comforts, but also by acquiring knowledge. We are fellow travellers in a great cause.

We are sorry that you are leaving, particularly because of the friendships we have established. Parting is inevitable, but we are absolutely sure that you carry with you the best memories of the time you have spent here, and that your memories will attract you here again as soon as possible.

Before I conclude I want to say one more thing; it is about the retiring President. He and I have been in contact with each other for the last ten or twelve years, and I have found in him one of the finest men I have come across in life—his generosity, his readiness to understand other points of view, his farsightedness, and his burning desire to make this Conference a world institution. When I heard that he was to retire, it was a great shock to me. He is leaving us before the work is fully developed. There is much to be done in many fields, and the problems of the backward parts of humanity are yet to be fully understood. There are no limits to knowledge or research. In this complex world, new problems arise and we know that his continued presence at the Conference would be helpful

and necessary. However, I understand that he has to lay aside his executive duties and that he will be able to devote himself to the wider objective in a freer atmosphere. I wish him long life and prosperity. As a token of appreciation of the work that he has done, I present him with an album of the photographs of this Conference and a silver-plated replica of the sacred Nandi Bull found at the famous Chamundi Hills in Mysore.