

INPUTS FOR AGRICULTURAL RECONSTRUCTION

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Increasing agricultural production requires the availability not only of physical inputs but also of a wide range of technical and educational facilities. These we briefly review hereunder.

Planning and Statistics

2. If agriculture is to be organised so as to be able to absorb and to increase production it is essential that there be an effective planning unit within the Ministry of Agriculture. Such a unit can continually monitor agricultural progress and develop a comprehensive range of policies to meet the changing circumstances of the rural situation. Fundamental to this is the requirement for a survey of the disposition of existing agricultural resources. The last census of agriculture was conducted in 1963/64 and a new one, to determine farm holding and household characteristics, areas under crop, crop yields, etc. is urgently needed. We recommend that FAO be invited to assist in the conduct of an agricultural census in 1980/81. A proposal to this effect has been prepared. It is estimated that it would involve the expenditure of Shs. 3.7m. of which Shs. 2.8m. would be in foreign exchange, spent over two years. The project would require the appointment of four expert statisticians for a total period of 44 man-months, together with local support staff.

3. The planning unit itself will require, if it is to conduct effective project analyses¹, additional development and some of its staff need in-service training. This would involve the appointment of an FAO Project Coordinator for a period of at least one year and also a number of short-term training consultants. It would be necessary, in view of the loss of all statistical equipment by looting, to provide a set of such equipment. It is estimated that the entire project would cost Shs. 1m., three quarters of which would be in foreign exchange, spent in the 1979/80 and 1980/81 financial years. The buildings occupied by the planning division are also in need of rehabilitation and re-equipment following looting. This would require the sum of Shs. 1.2m., three quarters of which would be in foreign exchange.

Agricultural Extension and Farmers' Training

4. Effective agricultural extension requires that officers be trained in well-staffed and equipped agricultural colleges and that, once appointed to the field, they are mobile so that they can regularly visit farmers and adequately supervise their field staff. It is also desirable that they be continuously brought up to date with new developments through appropriate in-service training. Unfortunately since 1972 many have been increasingly desk-bound and some have become quite disheartened. Farmer training is also essential if good agricultural practices are to be widely adopted. Unfortunately, as with almost all educational establishments in Uganda the District Farm Institutes (DFIs) were heavily looted during the liberation war.

5. The estimated cost of rehabilitating the agricultural extension division is estimated as follows:

	1979/80		1980/81	
	Shs. m.		Shs. m.	
	Total	F.E.	Total	F.E.
Tractors	1.0	1.0	2.0	2.0
Equipment	4.0	4.0	5.9	5.9
Vehicles	2.8	2.8	2.4	2.4
Motor cycles & Bicycles	2.0	2.0	1.0	1.0
Temporary Housing	0.7	0.5	0.4	0.3
	10.5	10.3	11.7	11.6

¹With particular attention paid to project identification and design activities and the application of modified appraisal procedures to small farmer projects, in addition to the standard appraisal procedures for capital-intensive projects. Training in the wider areas of agricultural strategy formulation and decentralised rural development planning will be required at a later date.

6. The estimated cost of rehabilitating the DFIs is as follows:

	1979/80 Shs. m.		1980/81 Shs. m.	
	Total	F.E	Total	F.E
Furnishing	0.5	0.2	0.3	0.1
Equipment	1.4	1.0	0.7	0.5
Vehicles; tractors etc.	10.0	9.0	4.0	3.6
	11.9	10.2	5.0	4.2

7. Agricultural colleges, i.e. those institutions which provide diploma courses, also require rehabilitation after their looting. This will involve the expenditure of Shs. 1.2m. in 1979/80 and Shs. 2.0m. in 1980/81. In each case half would be in foreign exchange.

8. If the magendo market, and especially smuggling, disappears as a result of Government policies, serious unemployment is likely to develop amongst young people, and especially school-leavers. We recommend that, as a matter of high priority, a young farmers' training programme be reinstated to assist in solving this problem. This, we estimate, would require the appointment of a specialist Field Officer to each district and the provision of basic training in crop and livestock management to young people. They will also need to be provided with adequate supplies of inputs in order to assist in their establishment as farmers. Such a programme could well be supported by FAO and/or IBRD. We estimate that it would cost in 1979/80 Shs. 6m. and Shs. 11m. in 1980/81. About one quarter of the expenditure would be in foreign exchange.

9. As well as the Young Farmers' Programme it seems desirable to re-establish the Home Economics/Better Family Living Programme which commenced to operate just before the liberation war. All its equipment, including its entire transport fleet, was looted. In this International Year of the Child, UNICEF might help in the re-establishment of the programme. It is estimated to cost Shs. 2m., two thirds in foreign exchange, over two years. A technical consultant would be required throughout that period.

10. Training of employees of the cooperative movement takes place at the Cooperative College at Kigumba. It provides accommodation for 200 students who undertake one and two year Certificate courses and a four year Diploma course. The college was extensively damaged by looting. All buildings, including staff quarters, were ransacked and the library left a shambles with class sets of text books destroyed. All office equipment was stolen or destroyed and the farm machinery and animals confiscated. The College will require extensive rebuilding before it is capable of once more performing its essential training role. We recommend that this task be given high priority. Its cost will be Shs. 7.5m., Shs. 5m. being in foreign exchange.

Agricultural Research

11. A well established research programme is essential for the long-range development of agriculture. However, we believe that in the two years of rehabilitation the agricultural research establishment should be placed on a 'care and maintenance' basis. This will require the purchase of a minimum number of vehicles, laboratory and office equipment together with essential chemicals. We estimate the cost of this to be Shs. 3.9m. in 1979/80 and Shs. 3.6m. in 1980/81. Shs. 3.5m. will, in each year, be required in foreign exchange.

Mechanisation and Labour

12. Previously, considerable emphasis was placed on the need to extend the areas available for agriculture through bush-clearing and tractor hire services. We have

suggested, however, that greater returns to several national objectives will accrue through policies which concentrate on small farm activities. In addition, there is evidence that the employment of tractors is, given the world fuel situation and the constraints of foreign exchange on Uganda's short-term expenditure pattern, generally uneconomic. We therefore propose that the two services be restored only to a limited extent. The cost of this we estimate to be Shs. 30m. in 1979/80 and Shs. 15m. in 1980/81¹. The entire cost would be in foreign exchange.

13. Because the use of complex, imported farm machinery is becoming increasingly uneconomic in Uganda, we commend the Low Cost Equipment Project which has been operating with the assistance of UNIDO. Associated with this could well be a project to popularise the employment of ox-drawn equipment. The Low Cost Equipment project suffered heavy looting; to rehabilitate it would require Shs. 1.4m. in 1979/80 and Shs. 4.4m. in 1980/81. It will also require seven fellowships of six man-months each, the appointment of a technical expert as Project Manager and consultants for a total of 12 man-months. The ox cultivation project would require the appointment of a farm system/extension specialist to train local instructors who will eventually set up mobile schools for training ox instructors and other field staff. This would require Shs. 0.3m. in 1979/80 and Shs. 2m. in 1980/81. Two-thirds of this would be in foreign exchange.

Irrigation

14. Two schemes aimed at the popularisation of the growing of irrigated rice are at present operating at Doko and Kibimba. Both are being conducted with the assistance of the Peoples' Republic of China. To enable them to continue will require Shs. 2m. in 1979/80 and Shs. 4.2m. in 1980/81. The entire expenditure will be in foreign exchange. It is also recommended that two overseas training fellowships be offered to Ugandan staff associated with these projects.

15. There are also pilot irrigation projects at Atera, Labori and Agoro. The last named is a self-help project involving 200 small-holders. To re-activate the first two projects together with their necessary headquarters support would require Shs. 0.9m. in 1979/80 and Shs. 2.5m. in 1980/81. Virtually all the costs would require foreign exchange. The FAO Technical Cooperation Programme may be able to assist with these schemes. If financial assistance for these is not available we recommend that they be put on a 'care and maintenance' basis until 1981/82. The Agoro self-help project requires the expenditure of Shs. 0.3m. in 1979/80, all in foreign exchange. The pilot schemes should be evaluated with a view to deciding on the desirability of an expanded rate of exploitation of Uganda's large irrigation potential. The original UK appraisal mission should be asked to carry out this task if the members of it are available.

Credit and Subsidies

16. In 1961 a Rural Cooperative Credit Scheme was established with the purpose of providing one-year and medium term loans to members of cooperative primary societies so that they could buy agricultural inputs. The scheme was supervised by the primary society members themselves, who are, of course, in a good position to screen potential borrowers whose character alone is the guarantee for borrowings. The scheme has, over the years, worked well. Through it farmers have been able to pay for essential inputs and associated with these there has been the opportunity for timely agricultural extension. Default rates have been relatively low, 4-9% in the case of farmers and 1.5% in the case of primary societies. The main problem with the scheme has been the inadequacy of funds available. No funds other than interest have been added to the Shs. 13m. with which the scheme was established in 1961. The total in the fund now stands at Shs. 15.8m. As a result only 505 out of more than 3,000 societies are able to participate in the scheme. Had the scheme gone in accord with the original plan, 1,800 societies, involving 360,000 families, would have been incorporated into it by 1978.

17. We believe that the scheme is a good one and that agricultural rehabilitation, and especially that of small farms, will be greatly facilitated by its expansion. Accordingly we recommend that the number of societies participating in the scheme be increased from 505 to 650 in 1979/80 and to 800 in 1980/81 i.e. to serve 65,000 and

¹This would allow for 200 new tractors, spare parts to repair an estimated 250 more, and spare parts for a unified bush clearing unit which would serve both the Ministry of Agriculture and the Ministry of Animal Resources.

90,000 families, respectively. At the same time we recommend that the level of loans available to individuals be increased from the present Shs. 200 to Shs. 500.

18. This proposal would require the injection into the scheme of Shs. 25m. in 1979/80 and Shs. 12.5m. in 1980/81. Later, i.e. in 1981/82, it might be appropriate to extend the scheme to incorporate medium-term lending, but this should be provided only with caution. The prime purpose of the scheme should remain to assist small, rather than medium-scale, farmers. Additional staff will be required to supervise both the cooperative movement and the Ministry of Agriculture. It should also be noted that such officers, requiring to be mobile, will need to have adequate transport. This will require the re-establishment of the Credit Advisory Service of the Ministry of Agriculture which in recent years has been depleted of staff. Their transport requirements would cost Shs. 0.2m. in 1979/80 and Shs. 1m. in 1980/81. This would all be in foreign exchange. The cooperative movement would require additional expenditure of a similar amount.

19. Access to the Cooperative Credit Scheme is available only to members of cooperative societies. There are good reasons why more widespread access to short-term credit should be available. We recommend that a project establishing a small farmers' credit scheme, run in association with the Credit Advisory Service of the Ministry of Agriculture, be designed and appraised.

20. Credit alone may not be sufficient to enable some farmers to purchase the necessary inputs. We therefore suggest that government consider subsidising - by up to 30% - the supply to designated farmers, or groups of farmers, of high pay-off inputs for limited time periods¹. Subsidies should also be provided for the widespread use of fertilisers and other chemicals if it can be clearly established that their use from a national point of view is economic. In determining whether this is the case, due consideration should be given to the foreign exchange situation, i.e. shadow pricing adjustments should be applied to the calculation.

Agricultural Education

21. The implementation of the crucial programmes of agricultural reconstruction and rehabilitation which have been identified in this chapter depend critically upon the replenishment of the stock of trained high-level manpower - graduates and post-graduates - in the relevant specialised fields. The stock of indigenous personnel has been severely run down in key areas by retirement and by emigration into exile. The latter is particularly damaging because personnel are lost to the country when a major part of their professional contribution has yet to be made.

22. Apart from the numbers dimension, the quality of new entrants to the national stock of high-level agricultural manpower has given cause for concern. The decline in the numbers of Ugandan staff (and expatriates knowledgeable about Ugandan conditions) in the Faculties of Agriculture and Veterinary Medicine, delays in the completion of building programmes and the progressive breakdown of training equipment have led to doubts about the operational quality of the training given over the past four years or so.

23. Currently, the Faculty of Agriculture has 19 posts filled by Ugandans out of an establishment of 53, and the Veterinary Faculty has 17 Ugandans with an establishment of 44 posts. The tasks of reconstruction and further development of the economy would lend particularly strong support in the case of these two faculties to the proposals made in Paper 21 to assist the return of exiled Ugandan university teachers to Makerere and to provide expatriate assistance to fill the remaining key posts on a temporary basis. We support the view of senior Ugandan faculty that priority in the latter exercise should be given to attracting to each major field one experienced teacher-cum-researcher who could (i) rapidly identify areas where the curriculum needs strengthening or up-dating, and (ii) provide leadership in the identification and design of a range of relevant production-oriented research projects for implementation within both the University and Government research networks.

¹Such inputs as fertilisers, insecticides and herbicides have been identified in the context of the priority programmes for coffee, tea and cotton which were described in Paper 4.

24. Capital aid is also required for key equipment, teaching and other buildings and for practical training capacity through the existing university farm and the proposed veterinary field station. In the case of the farm and field station the tendency to install the most sophisticated production techniques and enterprises should be avoided, so that the available ingenuity is addressed to improving the viability of existing or clearly potentially-appropriate systems rather than contributing further to atypical capital and management-intensive systems based on a non-adapted imported technology.

25. The twin problems of the relatively deficient training of recent graduates and the professional isolation of Ugandan specialists may be remedied partly by the provision of overseas training fellowships. Both the scale of the problem and the common problem of the inappropriate nature of overseas training in some fields, however, suggest that attention be paid to the merits of establishing at Makerere University an in-service refresher course and up-grading training capacity in the key fields. Recent FAO-assisted developments in the Faculty of Agriculture of Dar-es-Salaam University would seem to offer a relevant model in this respect. We recommend that a project identification mission for the design of a 'Staff College' capacity in the agricultural and veterinary disciplines be jointly requested by the relevant ministry and university authorities.

26. The complex problems of the agricultural sector need to be addressed by the finest calibre of mind which Uganda possesses. The skill and relevance with which agriculture is taught as a secondary school discipline is a crucial element in influencing the professional career choice of the next generation of high-level manpower. If not taught at the highest level, agriculture can too easily be viewed as a subject for drop-outs, as an 'easy option', as a series of tedious manual tasks or as a means for school authorities to augment their revenues through exploiting the pupils' supply of zero-cost labour. These pitfalls can only be avoided by a well-trained and dedicated cadre of specialist teachers. It was with concern that we learned that agricultural education is taught to future specialist teachers without a demonstration school farm - the equivalent of the physics laboratory for training physics teachers. We suggest that the capital and technical assistance required to remedy this deficiency is presented as an aid project and included as a high priority component within the overall programme for Makerere University.