

RUSEP

Helping farmers create wealth

Rural Sector Enhancement Program

Promoting Market-led Agricultural Technology Transfer and Commercialization in Nigeria



Editors

P.M. Kormawa, C.I. Ezedinma, A.A. Adekunle, and K.O. Makinde

IITA

International Institute
of Tropical Agriculture
(IITA)



Federal Republic
of Nigeria



United States Agency
for International
Development (USAID)

Promoting Market-led Agricultural Technology Transfer and Commercialization in Nigeria

Edited by

P.M. Kormawa, C.I. Ezedinma, A.A. Adekunle, and K.O. Makinde

Coordinating Office
Rural Sector Enhancement Program
International Institute of Tropical Agriculture
PMB 5320, Ibadan, Nigeria

Acknowledgements

We express our profound gratitude to the United States Agency for International Development (USAID) Nigeria Office who provided the funds for the workshop that led to the production of these proceedings. Thanks also go to the Winrock International and the Federal Ministry of Agriculture and Rural Development. We are particularly grateful to Mr Ismaila Adamu and Dr O. Oyebanji of the Projects Coordinating Unit for the time they put into the organization of the workshop and launching. We thank all the authors who shared their experiences through the papers presented here.

We are also grateful to IITA, especially the Multimedia Unit, for the staff time and resources it invested in producing these proceedings. A special word of thanks should go to Mrs Rose Umelo who, through her editorial prowess, made a lot of sense from several drafts of this document.

Dr P. Kormawa
Rural Sector Enhancement Program (RUSEP)

© IITA 2003

ISBN 978-131-206-8

Citation: Kormawa, P.M., C.I. Ezedinma, A.A. Adekunle, and K.O. Makinde (editors). 2003. Promoting market-led agricultural technology transfer and commercialization in Nigeria. Proceedings of a National Stakeholders Workshop and Launching of Rural Sector Enhancement Program (RUSEP), held at International Institute of Tropical Agriculture (IITA), Ibadan, 13–15 March 2002. RUSEP, IITA, Ibadan, Nigeria.

Preface

The emergent forces of globalization, trade liberalization, and information technology present a new challenge and opportunity to Nigeria. However, the potential benefits from these opportunities are yet to be realized by Nigerian farmers, who are predominantly smallholders, and whose livelihoods depend on agriculture. Recent studies and experiences have shown that smallholder farmers could be as efficient as their large-scale counterparts, if they are better organized to access support services, input and output markets, technologies, and credits. This can be achieved within the framework of improved policies and institutional arrangements that aim to promote a market-oriented agricultural sector. The Rural Sector Enhancement Program (RUSEP) is a strategic program that aims to commercialize smallholder agriculture using an innovative approach through strengthening producer and agroprocessor associations and linking them with technology on one side and to product and service markets on the other. The ultimate objective of the program is to increase incomes and well-being of farmers and agroprocessors and to contribute to economic growth through increased agricultural productivity. RUSEP started in July 2001 as a pilot project in Abia, Adamawa, Katsina, and Oyo states.

The transformation of the rural sector requires a holistic approach and therefore multi-institutional collaboration. To ensure the harmonious implementation of RUSEP, there is need a for brainstorming and consensus building among stakeholders about the way forward. In furtherance of this goal, a 3-day workshop was held involving 115 participants including policymakers at local, state, and federal government levels, officials from relevant government agencies, development agencies, NGOs, representatives of farmers' groups, agroindustrialists, processors, farm-support service providers, and the Nigerian mass media. Also in attendance were participants from Ghana, Uganda, and the United States of America. The workshop was held at Ibadan from 12 to 14 March 2001, with a formal launching by the Minister for Agriculture, Mallam Adamu Bello, on 15 March 2002.

The first objective was to share experiences among participants about market development, and successful production to market linkage projects in Nigeria and other countries. The second objective was to inform participants about the potential benefits of establishing a market development project that provides information about agricultural products, organizing farmers into commodity focus groups, enhancing farmers' capacity, and linking producers and processors to identified markets. The third objective was to build consensus on the project strategy and solicit the participation of private and public sectors as well as NGOs in the project implementation. The fourth objective was to develop an action plan for developing a sustainable market information system and technology transfer program in Nigeria, as well as to identify potential entry points and institutions to engage in the process.

A needs assessment study had been conducted in the four pilot states and the validation of results through state-level consultative meetings informed the workshop. During the first two

days of the workshop, technical papers on market development were presented and discussed. Experiences and strategies used to attain successful farm to agribusiness linkages in Ghana, Uganda, and Nigeria were presented and discussed. State-level reports following the needs assessment studies and reports were discussed. On the second day, the session broke into three groups: Market Development and Market Information Systems, Microfinance and Institutional Linkages, and Technology Transfer and Training. The recommendations of these groups were discussed later in the day during a plenary session.

We would like to thank especially the members of the various institutions and organizations that participated in this workshop. We thank the staff of the Projects Coordinating Unit of the Federal Ministry of Agriculture and Rural Development. We thank especially the Minister of State for Agriculture, Chief Chris Agbobu, for attending and launching RUSEP in person, also the State Governors of Abia, Adamawa, Katsina, and Oyo. We also thank the Director General and staff (and especially the editorial staff) of IITA. Finally we would like to thank the USAID for funding RUSEP as well the workshop.

It is hoped that the content of this book will be useful, and stimulating and that it will inspire investments in developing agricultural markets in Nigeria and the West African subregion.

Patrick Kormawa
RUSEP, June 2002

Contents

Acknowledgements.....	ii
Preface.....	iii
Keynote addresses.....	1
Welcome address	
<i>Dr R.H. Booth, DDG, IITA, Ibadan.....</i>	3
Overview of workshop and expected output	
<i>Dr P. Kormawa, IITA, Ibadan</i>	5
The concept of market-driven technology transfer and commercialization of agriculture	
<i>Prof. O. Ogunfowora, Abise Consulting Systems, Lagos</i>	6
Setting the scene	
<i>Abdulkadir Gudugi, USAID, Abuja</i>	11
Sharing experiences in market-led agroenterprise development	13
Linkages with rural farmers	
<i>Dr Tony A. Mensah, Athena Foods, Ghana.....</i>	15
Linking farmers' groups to markets	
<i>Richard Attipoe, Farmapine, Ghana</i>	17
Agroindustry experience from Nigeria	
<i>Boma Anga, Goldchains International Ltd, Lagos.....</i>	20
Linking grain (sorghum and maize) farmers with the beverage industry: the Guinness experiences	
<i>Samuel A. Bello, Guinness Nigeria Plc, Lagos</i>	24
Discussions, questions, and comments	26
Information and communication support for agricultural growth in Nigeria	
<i>Dr Ola Ogunyinka, IITA, Ibadan</i>	29
Reducing the channel of distribution for effective marketing of agricultural produce in the rural area	
<i>Mrs Ngozi Ajuonu, Rural Women Foundation, Lagos</i>	31
A fruitful connection: successful production—agroindustry linkage in pineapples	
<i>Takyi Sraha, Technoserve, Ghana.....</i>	34
Lessons from Uganda on developing market opportunities	
<i>Dr Shaun Ferris, IITA, Uganda</i>	36
Promoting agricultural commercialization	
<i>Dr John Flynn, Winrock International, Arkansas, USA.....</i>	38

Discussions, questions and comments	39
Sharing experiences: a synthesis <i>Dr Chuma Ezedinma, IITA, Ibadan</i>	40
Reports of state-level consultative meetings	43
Abia State stakeholders' consultative meeting.....	45
Adamawa State stakeholders' consultative meeting.....	48
Katsina State stakeholders' consultative meeting.....	53
Oyo State stakeholders' consultative meeting.....	57
Discussions, questions, and comments	60
Syndicate groups: presentations and recommendations.....	66
Launching of the Rural Sector Enhancement Program	73
A market-led agricultural technology transfer and commercialization. Dr P. Kormawa, IITA	75
Goodwill Messages: Governor of Oyo State, Alhaji Lamidi Adesina	78
Governor of Katsina State, Alhaji Umar Musa Yar' Adua	80
Governor of Abia State, Dr Orji Uzor Kalu (MON).....	82
Speech by the Honorable Minister for Agriculture, Mallam Adamu Bello, FCIB.....	83
Annexes	87
1. Workshop program.....	89
2. Participants.....	92

Keynote addresses

Welcome address

Dr Robert H. Booth
Deputy Director General, IITA

On behalf of our Director General, Dr Peter Hartmann, let me welcome all of you to IITA for this National Stakeholder's Workshop, followed on Friday by the formal launching of RUSEP—the Rural Sector Enhancement program—a market-led agricultural technology transfer and commercialization project. This pilot phase is being implemented in four states of Nigeria with generous financial support from USAID.

This project builds upon other experiences of the transfer of technology here in Nigeria, notably the recent USAID-supported project: Accelerated Dissemination of Improved Technologies. Through this project, more than 11 000 farmers received improved seeds of maize, soybean, and cowpea in 2000 and 2001. The presence of Prof. Peter Oyekan who coordinated this project has already been recognized. We expect RUSEP to build upon and extend such experiences, but we hope and intend to make RUSEP different.

Although IITA has been and continues to be very active in the postharvest sector, we still have to say that the vast majority of past efforts with the transfer of research technologies from IITA to farmers has been aimed principally at increasing their production and so improving household food security. Indeed, if we examine the statistics for the agricultural sector in Nigeria, we find that in the prevailing circumstances it has performed remarkably well in terms of production and in household and even national food security. And this has been during a period when the circumstances have not been particularly favorable for agricultural development—we have experienced, among other factors, a poor policy environment and a rapidly expanding population. But, as an example, we here at IITA estimate that as a result of research and development on two crops alone, maize and cassava, over 100 million more people could be fed in the last 30 years. In terms of improved food security, particularly at the rural household level, we can find many positive examples from which we can say that agriculture has performed acceptably well. However, in terms of contributing to economic development, agriculture has performed poorly and well below its potential.

Thus, RUSEP is designed and targeted to assist in the commercialization of agriculture. This matches well the new Strategic Plan for IITA for 2001–2010 and, if successful, will contribute significantly to it. One of the major objectives stated in the Strategic Plan for this period is “to increase agricultural productivity and enhance commercialization opportunities for agricultural products to ensure improved food security, raise farmer incomes, and contribute to the development of an effective agroindustrial sector.” For an effective agroindustrial sector, you need well-identified markets, competitive raw materials, and (of course) effective and efficient enterprises. These are the very aspects that RUSEP is designed to focus on.

- Market opportunities and characteristics.
- Competitiveness of raw materials.
- Enterprise feasibility studies: economic, technical, and social, e.g., opportunity value of rural employment.

RUSEP thus differs from the conventional extension service approach of conducting experiments on-farm and expecting farmers to adopt and adapt improved technologies. RUSEP will offer and link appropriate technology options with already identified market opportunities. This is complemented with other support service initiatives, such as the facilitation of access to seed, credit for high-energy inputs, and market information systems. This is accomplished through innovative partnerships with relevant programs and projects. Through close partnership with state and federal policymakers in Nigeria, RUSEP also seeks to influence and nourish the emergence of an enabling policy environment that would eventually make the Nigerian agricultural sector competitive in national, regional, and global marketplaces.

The pilot project is implemented in Abia, Adamawa, Katsina, and Oyo States. In each of these states, prioritized programs and activities have been identified following detailed needs assessment and market sector analysis. Major crops with high domestic agroindustrial demand include maize, cassava, soybean, rice, and yam. The project has begun to link farmers/farmers groups with identified markets. It is envisaged that by the end of 2002, about 7000 farmers will benefit from the project with a projected increase in their farm incomes of 20–35%, all this resulting from the use of improved technologies, training, and improved market access.

We feel that an interesting program has been developed for these two days and several speakers from outside Nigeria have been invited to share their experiences with you. We hope you enjoy the meeting and your stay with us at IITA and that you are successful in developing and agreeing upon a long-term implementation strategy for RUSEP.

Overview of workshop and expected outputs

Dr P. Kormawa

RUSEP Project Coordinator, IITA, Ibadan

The Rural Sector Enhancement Program (RUSEP) is a market-led agricultural technology transfer and commercialization project. The purpose of the project is to develop and test a market-driven technology transfer and commercialization strategy for agricultural enterprise development and enhancing income generation capacity.

RUSEP is implemented by IITA in partnership with the Federal Ministry of Agriculture and Rural Development, and Winrock International, and funded by the United States Agency for International Development. Presently, RUSEP is being implemented in four pilot states, Abia, Adamawa, Katsina, and Oyo.

A Needs Assessment Study conducted in the four pilot states and state-level consultative meetings done to validate the findings of the study inform the background to this workshop. The workshop is also informed by the need for expert consultations to guide RUSEP in Nigeria.

Objectives of the workshop

- Learn about successful production to market linkage projects.
- Develop an action plan for sustainable market information system.
- Identify potential entry points and institutional framework.
- Develop a plan for successful technology transfer and training.
- Identify a multilevel funding mechanism for RUSEP.

Expected outputs from the workshop

- Experiences shared on production to market linkage activities.
- An action plan developed for linking farmers with markets, a sustainable plan for technology transfer and training ,and a strategy for a sustainable market information system.
- Multilevel funding mechanism identified for RUSEP.

Workshop methodology

The workshop is divided into three sessions.

1. Sharing of experiences
2. Discussions on state-level reports
3. Group work and presentations

Launching of RUSEP

Finally, there will be a formal Launching of RUSEP in Nigeria on Friday, 15 March 2002.

The concept of market-driven technology transfer and commercialization of agriculture

Prof. O. Ogunfowora

Abise Consulting Systems, Lagos

Problem definition

Rapid economic growth, poverty alleviation, and sustainable democracy are some of the priority programs of this administration. This is in recognition of the fact that over 70% of Nigerians are poor and about 67 million people are living below the poverty level.

Events within the last 2–3 years have revealed that it will be difficult to achieve economic growth and sustain democracy if the army of unemployed continues to grow, if the bulk of Nigerians are living below the poverty level, if industrial growth is incapacitated by lack of agroindustrial raw materials, and if agriculture becomes progressively incapable of performing its traditional functions in the process of economic development.

Many poverty alleviation programs are currently being executed, ostensibly designed to address the problems of the poor majority. However, as conceptualized, most of them are most likely to be ineffective and unsuitable. This is because many of them fail to tackle the root causes of poverty and have the tendency to promote the dependency syndrome. Many programs have also been established in the past to address the problem of sustainable agricultural growth. Previous policies and programs designed to achieve sustainable agricultural growth focused largely on increasing farm productivity through the maximization of agronomic efficiency. New technologies for transforming smallholder agriculture were made available through the activities of 17 national agricultural research institutes and four international research institutes.

Production and distribution of improved seeds and seedlings were undertaken by research institutes, National Seed Service, agricultural development programs (ADPs), and, to a limited extent, by seed companies. Fertilizer use was promoted through the application of subsidy while the ADPs embarked upon the dissemination of pest control measures and improved cultural practices through extension.

Regrettably, all the above did not translate into sustainable agricultural growth and wealth creation. Thus, farmers remain poor and largely traditional in their farm operations despite the availability of productivity enhancing technologies. Various factors have constrained the adoption of such technologies.

- Lack of efficient and well-functioning input and output markets, leading to scarcity and high cost of farm inputs, wastage, and poor prices for farm products.
- Inadequate skills, leading to low mastery of production and agroprocessing technologies.
- Lack of awareness about market opportunities and product utilization possibilities due to lack of market information system.

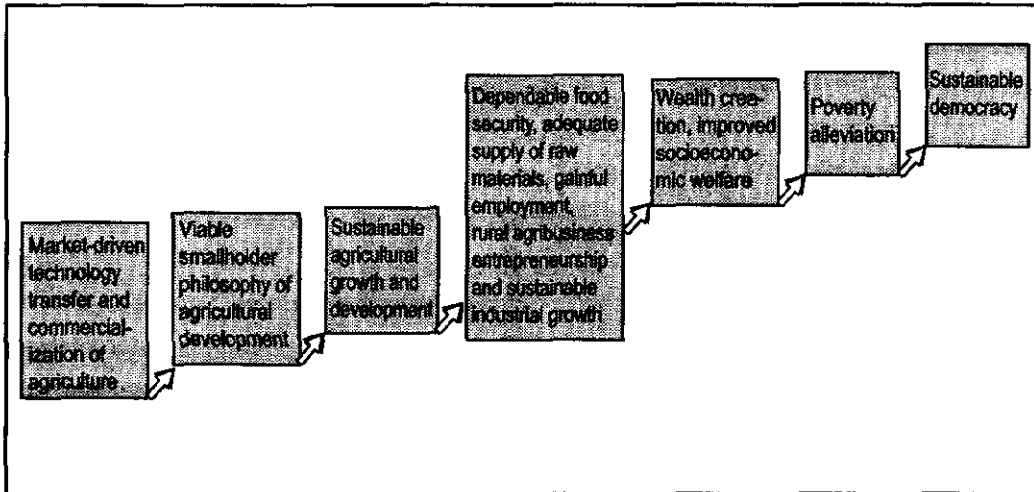


Figure 1. The objective pathway to market-driven technology transfer and commercialization.

- Inadequate rural mobilization and ineffective extension and human capital development programs.
- Lack of microcredit and venture or investment capital.

The conceptual framework for market-driven technology transfer and commercialization

The concept of market-driven technology transfer and commercialization is an intervention framework designed to remove these constraints in order to improve Nigerian agricultural productivity and competitiveness. The aims are to generate massive rural employment and income and alleviate poverty, achieve sustainable food security, rural agroindustrial development, and widespread agribusiness entrepreneurship through capacity building.

There is a strong link between poverty alleviation, sustainable democracy, and market-driven technology transfer and commercialization. When an efficient market-driven technology transfer is anchored on a viable smallholder philosophy of agricultural development, the resultant effect is sustainable agricultural growth and development (Fig. 1). All other things being equal, sustainable agricultural growth and development will, in turn, lead to sustainable food security, gainful employment, sustainable rural agribusiness entrepreneurship and industrial growth, wealth creation, and, ultimately, poverty alleviation and a sustainable democratic system.

The operational framework of market-driven technology transfer and commercialization

Market-driven technology transfer and commercialization (MDTTC) has six major components, consisting of two operational and four enabling components (Fig. 2). On the production side, these include the development and transfer of productivity-enhancing technologies such as new germplasm, improved seeds and seedlings, improved cultural and management practices, optimum application of fertilizers and agrochemicals, and intensive agricultural extension

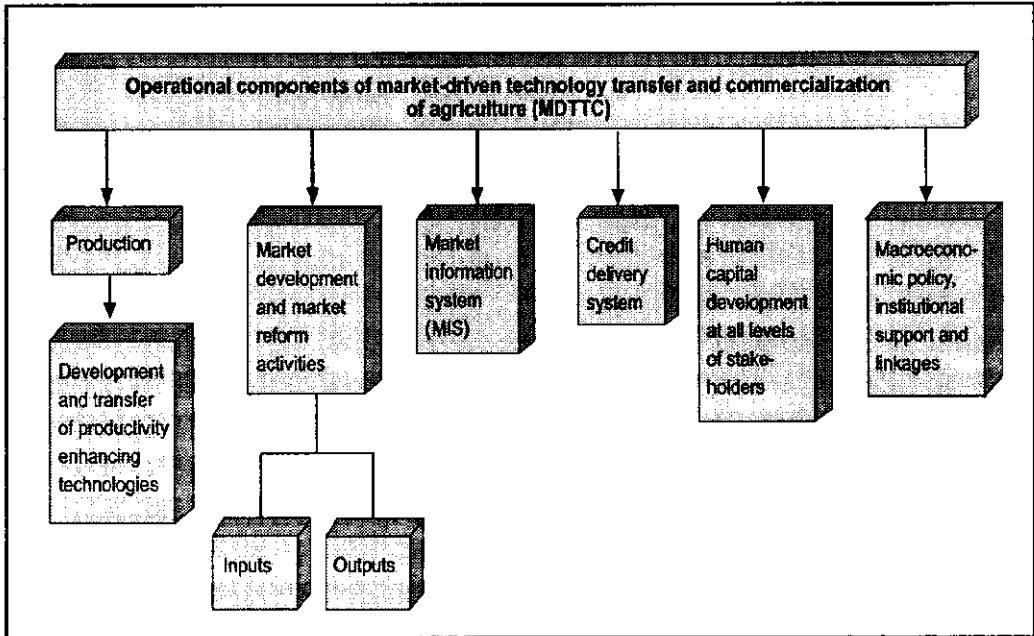


Figure 2. The operational components of market-driven technology transfer and commercialization concept.

activities. On market development and market reform activities, there is a need for commercialization possibilities for fertilizer, seeds, and agrochemicals, and a shift from public to private sector-driven inputs market on the input side. And on the output side, there is a need for improved storage practices, primary agroprocessing to add value, product development to enhance quality and diversify utilization possibilities, market infrastructural development, quality control measures, and improved marketing arrangements. Market information services will help to link researchers, farmers, processors, fabricators, input dealers, marketers, and users of farm products. A viable credit delivery system should also focus on microcredit, and a small business development fund, and provide venture capital. Human capital development for all stakeholders can be achieved through mobilization, facilitation, and training to equip them with adequate skills and expertise required for MDTTC activities. The stakeholders include ADP extension personnel, farmers (groups and communities), dealers, wholesalers, retailers of inputs, marketers of outputs, staff of NGOs and agencies, processors, fabricators, credit officers, etc. A final component of the MDTTC is macroeconomic policy and institutional support. This will include an advocacy role to influence policy changes in the desired direction, a review of agricultural policy to create a conducive environment for private sector investment in agriculture, adequate funding and capacity building in research institutes, (ADPs, National Seed Service, etc.), a periodic review of macropolicy variables—interest rate, forex availability, tariff, port operations and charges, etc.— in order to make them investment-friendly.

The operational components impact on the effectiveness of MDTTC in the following ways The availability of profitable and adaptive productivity enhancing technologies, backed up by

intensive extension activities, will accelerate the incorporation of improved farming practices into the smallholder farming system. An efficient, private sector-led agricultural inputs market will ensure that modern farm inputs are available to the farmers in the right type, quantity, and at the right price, place, and time on a sustainable basis.

However, experience has shown that the availability of farm inputs as well as increased productivity and outputs are only necessary but not sufficient conditions for wealth creation at the farm level. Farmers must be able to sell their products at competitive prices. There is, therefore, a need to complement productivity enhancing technologies and the agricultural input market with an efficient and well-functioning outputs market. A well-functioning agricultural outputs market, which embodies improved storage and agroprocessing technologies, will reduce wastage, add value, and increase effective demand for farm outputs. An increase in effective demand for farm products will, in turn, lead to scale expansion and more intensive use of farm inputs. This will, in turn, increase the effective demand for farm inputs and, consequently, lead to increased market activities in the agricultural input subsector.

With respect to the four enabling components, the more enabling they are, the more effective will be the impact of the operational components on MDTTC. Given the foregoing exposition, it can be concluded that all the components of MDTTC, particularly the operational components, are complementary and should, therefore, be developed in tandem in the process of project implementation.

Complementarity between RUSEP and DAIMINA projects

RUSEP and DAIMINA projects are similar and complementary in two aspects. First, both projects are instruments for accelerating widespread adoption of productivity enhancing technologies. While DAIMINA focuses on the development of agricultural inputs market, RUSEP focuses on output market development.

Secondly, the components of both projects are virtually the same, although emphasis may differ in their application to each project. An effective implementation of RUSEP project will enhance the development of the agricultural inputs market.

Arising from the above, both projects should run concurrently in any given target location in order to maximize efficiency and effectiveness. In Oyo State, for example, where both projects are to run concurrently, the framework and modalities for collaboration should be worked out using the operational components as a guide. However, in Kano State, where only the DAIMINA program is in operation, the absence of RUSEP or its equivalent may dampen the overall effectiveness of DAIMINA in promoting agricultural growth and alleviating poverty.

Concluding remarks

Since over 80% of the Nigerian rural and semiurban population are engaged in primary production and microenterprises, poverty alleviation can be effectively accomplished within the framework of a sustainable agricultural development program anchored on an efficient MDTTC.

When efficient and adaptable productivity enhancing technologies and well-functioning input and output markets are complemented with human capital development, market information, and credit delivery systems, farm productivity will increase, production costs will be reduced, farm income will be increased, scale expansion and farm intensification will be promoted, rural microenterprises will multiply, rural entrepreneurship and employment generation will be enhanced, and rural poverty will be considerably reduced.

If well-implemented, MDTTC activities will be an effective and sustainable program for tackling the root causes of poverty and, to some extent, sociopolitical instability on a sustainable basis, because the beneficiaries will be permanently empowered to fend for themselves.

However, in order to make MDTTC a potent instrument of agricultural growth and poverty alleviation, there must be thorough planning and a total commitment of all stakeholders to the successful implementation of the program. There must also be a transparent commitment of all tiers of government to the successful implementation of this project through appropriate policy and financial support. USAID should also closely monitor these projects to see that those who are charged with the responsibility of implementation are well-focused. We cannot afford to implement these programs in the tradition of the past. It is in our national interest to ensure that the grant from USAID is productively utilized.

Setting the scene: introductory remarks

Abdulkadir Gudugi
USAID, Abuja

Let me begin by saying that in the implementation of RUSEP, emphasis should be placed on the goals and issues of linkages and sustainability. RUSEP is not a research project that should engage in issues of what is to be done. RUSEP is an interventionist project that sets out to identify strategies needed to achieve the goals based on experiences. RUSEP is, therefore, not a research but learning process and the implementers have to pause at every stage to evaluate so as to ensure improvement.

The contributory roles of IITA and Winrock International, especially in the areas of technology development, timely input delivery, credit support, and farmer-to-farmer programs, are well-known and recognized. At the moment, there is a proposal for a credit program to be supported by the USAID but the Agency is still studying the policy framework of both the government and private sector. This is essential to complement other projects of USAID. I wish you all fruitful deliberations

Sharing Experiences in Market-Led Agroenterprise Development

Linkages with rural farmers: a processor's experience

Tony A. Mensah

Athena Foods Ltd, Tema, Ghana

Introduction and background

Athena Foods is a privately owned limited liability company that was incorporated in 1994. The process started with investigation into the local but sustainable availability of cassava and pineapples as raw materials for agroprocessing.

Based on the feasibility report, pineapples were selected and as a result, a fruit processing plant was installed three years ago. Pineapples were produced using organic inputs and the concentrate has been exported to the European markets. This is done in partnership with a Danish company.

Rationale for linkages

The rationale for seeking linkages at the farm level is based on the fact that currently, 70% of production is nonexportable. The fact that low Brix affects evaporation and residues may exist in finished products means that there is a need to ensure the source of raw materials supply. There is also the inability to control practices of large export-oriented commercial farmers. Pineapples could be a supplementary cash crop for rural farmers by extending the pineapple growing base to the cocoa growing areas. This would also enable a successful poverty alleviation program.

Groups and institutions

Basically, linkage is organized by private and nongovernmental organizations without any national body to formalize it. Athena Foods links vertically with the following organizations:

- Ekumfi Pineapple Growers Association (under the Hunger Project); here the integration is mainly with NGOs.
- Assin Pineapple Growers Association; though they are mainly cocoa producers, they were stimulated into pineapple production.
- Wassaman Pineapple Growers; they produce organically grown pineapples and have collaboration with Benyamina/GOAN/Technoserve.
- Farmapine Outgrowers (under Technoserve) who are members of a cooperative.
- Citrus Growers Association; here Athena Foods Ltd. is linked in terms of funding and relief activities with ORANA (a Danish firm) and ADRA (an American firm). Presently, the agreement is such that the labelling on the produce is that of the collaborators for the first three years.

Experiences with groups

Having worked with groups over the past few years we have observed the following constraints: loose organization in which no formalized organizational structures oversee the daily operations of the group; weak financial base, and poor information dissemination. There is also the problem of shifting allegiance where the growers normally prefer to sell to merchants and middlemen, even when they are aware of the terms of the contract. Group insincerity and dependency on middlemen and market queen mothers are negative attitudes we have observed when working with groups.

On the positive side, groups actually appreciate medium- and long-term benefits such as guaranteed price, ready market, reliable payment terms, standard units of measurement, and proper budgeting.

Conclusion

Although both industry and rural farmers in Ghana recognise the need to integrate their business into the global market through useful alliances, such linkages are currently weak and amorphous.

Recommendation

To strengthen linkages between industry and rural farmers and ensure rapid growth, we need to recognise technology as the major driving force behind successful and effective alliances vis-à-vis value addition for market expansion and market creation.

Linking farmers' groups to markets

Richard Attipoe, Farmapine, Ghana

Agriculture is the prime mover of the economics of West African countries. In Ghana, for instance, about 70% of the population are employed in agriculture. Its productivity is influenced significantly by the provision of support services such as research, extension, credit, input delivery, physical infrastructure, and marketing. The farmers' groups that exist in countries of West Africa make appreciable contributions towards the provision of agricultural produce for the local and the international markets. In Ghana, the World Bank and the Government of Ghana realized the need for marketing and other support services for the resource-poor pineapple farmers cooperative groups and identified the core limiting factors preventing the poor farmers from developing.

- Poor or inadequate returns to land and labor from crop production and sales.
- Limitation as regards value addition, thus selling fresh crops at minimal price without the advantage of higher profits that might come from processed fruits.
- Lack of working capital and the refusal of banks to lend to farmers because of lack of collateral.
- Inability to sustain farming owing to extreme poverty compounded with overdependence of extended families on the little free disposable income of farmers,
- The disadvantaged position of women in farming that comes from lack of requisite strength to compete laborwise with the men.

In view of this, Farmapine Ghana Ltd., a farmer-owned company, was set up as a result of an initiative of the World Bank and the Government of Ghana through the provision of a facility of US\$1.4 million by the World Bank through the Agricultural Diversification Program of the Government of Ghana as a loan to five well-identified pineapple farming cooperatives and two limited liability companies. The five cooperatives with a total membership of 166 farmers are the majority shareholders, each holding 16%, whereas the two limited liability companies hold 10% each as the minority shareholders.

The company was incorporated on 1 March 1999. It is a unique company, the first of its kind in West Africa. It is located at Nsawam, about 35 km from Accra in the Akuapim South district of Ghana. It commenced its operations in September 1999 with the following core objectives:

- Promote the cultivation of pineapples to meet stringent standards with reduced chemical residue levels.
- Support member farmers with the required production inputs, financial assistance and recommended technology to increase yields and improve quality of produce ensuring higher returns per unit area thereby alleviating rural poverty.
- Coordinate the purchase and marketing of pineapples with the prime aim of ensuring quality and competitiveness in the international market.

The company aims to become the major and most efficient farmer-owned company in Ghana, producing and marketing pineapples of the best quality that meet local and international standards.

A ten-member Board of Directors governs Farmapine Ghana Ltd and consists of the cooperative farmers' representatives and experienced professionals in their various areas of discipline. The Board is supported by a management team headed by an experienced Managing Director who formerly managed the Smallholder Project of the European Union and Twifo Oil Palm Plantation.

To achieve the set objectives and to attain the vision of Farmapine, effective collaborative teamwork exists among Farmapine farmers, NGOs, and the industrial sector. Annual training sessions are organized by management for farmers to acquire skills in land preparation, planting, disease control, degreening, and harvesting in the production of quality pineapples that meet the required standard of the European Union. Resource persons for the training sessions are brought from NGOs such as Technoserve International, Amex International, Annex International, Opportunity Industrialization Centre, and Ministry of Food and Agriculture.

Production managers embarked upon regular field visits to individual farmer's fields once in every fortnight to review their activities, assess plant progress, and offer the appropriate technical advice and cultural practices to the farmers to ensure the production of ideal fruit for both local and the international markets. Recommended inputs and rate of application to the crop plants are made available to them and details of activities on every plot on the farmers' farms are recorded on designated forms.

As a result of the delivery of appropriate technology by field production managers, the cooperative farmers' group cultivated 378 acres of pineapples in 2000 and 407 acres in 2001. There has also been a drastic reduction of diseases in the farmers' fields. Yield recovery, which used to be as low as 25%, rose to 45% in 2000 and 55% in 2001.

The Farmapine farmers' group produced a total of 4000 t of fruit enabling Farmapine Ghana Ltd to become the second largest pineapple exporter in Ghana. This position has been consolidated as 6185 t were produced and exported in 2001. It is hoped that 7500 t would be produced this year and this may place it as the largest pineapple exporter in Ghana.

Farmers' groups by their nature and probably by necessity are primarily interested in production, often with less time and interest in marketing because they are manager-laborers of diverse production units. The complexities of modern agriculture absorb a great deal of time and energy. As marketers, they enter and sell very small amounts at times. This often means that farmers are less informed and skilled in marketing than in production. Farmers' group decisions, generally, were often treated as independent of marketing decisions. It was assumed that the market would absorb whatever farmers produced. Farmers' production decisions today are shaped and closely controlled by marketing firms and consumer decisions.

Farmers' certainly have fewer market opportunities. They therefore need more and better market information in order to take production and marketing decisions. Market information helps them to balance supply and demand in particular markets and thereby ensures that gluts and surpluses

with their corresponding fluctuation in prices are avoided. The farmers need periodic educational programs to learn about new markets, alternatives, and choices. Farmers must know what product the market wants and values rather than what they have always produced or are good at producing.

Both local and international markets exist in the countries of West Africa for products as produced by the farmers but they have little or no access to useful market information and this necessitates linking them to markets. In Ghana, government agencies such as the Ministry of Food and Agriculture, Statistical Services, and Export Promotion Council serve as useful sources of potential market information. Technoserve International, Annex International, and other NGOs also serve as sources of information on markets and sometimes even link farmers to markets. Farmapine Ghana Ltd. has the sole responsibility to coordinate and market all the pineapples produced by its farmers. Pineapples that meet the export market requirements in terms of color, Brix level, weight, texture, etc., are exported to identified markets or buyers in Europe. Those fruits that do not meet those market requirements are marketed as a result of Farmapine linking farmers to existing local buyers.

The management takes the initiative in contacting institutions such as Blue Skies, Astek, Athena Foods, Tonu Fruits, which are all engaged in processing pineapples. The supply of fruits to them by the farmers' group is discussed. When agreement is reached on volumes to supply, time to deliver, quality, other market requirements, and price, the farmers' group is assisted into entering into contracts with those establishments. By doing these, the farmers' group is linked to markets or buyers and we have had the following achievements during the 2-year period of the project.

- Farmers have been turned into businessmen in the sense that they now own a company and they operate on the Board of Directors to learn the rudiments of corporate governance so that they can run their own agricultural business.
- They have been taught a little economics for them to understand that their role in the country is paramount and their contribution to the Gross Domestic Product is cardinal.
- They have developed the banking culture to facilitate the easy acquisition of capital (loans) in the future.
- Farms now have annual markets.

Future challenges include the following:

- Absence of sales representatives in Europe.
- Low prices for fruit in the European market.
- Inadequate space on the boats.
- Introduction of new varieties in the market.

Compliance with European requirements

Marketing cannot be isolated from production if farming should be a sustainable business and therefore a means of improving the resource-poor farmers' standard of living and reducing poverty. Governments, stakeholders, and politicians should be instrumental in the search for markets and even link farmers with them.

Agroindustry experience from Nigeria

Boma Simeon Anga

Goldchains International Ltd., Lagos

Agroindustry constitutes a major sector of manufacturing in most developing countries. Manufacturing added value in Nigeria is highest with agroallied industry constituting over 54% compared with 14% for textiles, 4% for machinery and transport equipment, and 6% for chemicals. The major economic import of agroindustry in Nigeria include the following.

- Accelerating agricultural commercialization.
- Import substitution role of their products.
- Contribution to GDP through substantial value added.
- Employment generation.
- Enhancing the incomes of the farmers, primary processors and traders.
- Taxes.
- Enhanced food security.

Agroindustry has a stimulating effect on agricultural production. A very notable example is that of Nigeria which is the world's largest producer of cassava with a production level of 34 million t/yr fresh weight. This position was in part due to the popularization of micro-, small, medium, to large-scale cassava processing plants that facilitated higher usage of cassava, creating more demand.

The agroindustrial sector is a large employer of labor and has a unique pluralism in terms of the scale of operations. The small, medium, and large-scale operators can thrive, each with its own complementary market. The sector plays a crucial food security role by helping to reduce food and postharvest waste and the utilization of local raw materials. It is estimated that up to 60% of fruit and vegetables and 20% of grains could have been lost to insects, mold infestation, and physiological deterioration without the agroprocessing industry. However, the productive capacity of the sector is severely hampered by a number of constraints that have reduced the sector's capacity utilization to as low as 34.6% while increasing the industry's failure rate.

Operating a thriving agroindustry in a harsh operating environment is the basis of our shared agroindustrial experience. The main stay of any economy is the real sector and without a conscious effort to add value to the sector, there may be no meaningful sustainable growth and development. The topic for discussion today could not have come at a better time, when we need to take a more critical look at the capacity utilization in our national economy. No one can deny that we are far from achieving an acceptable capacity utilization quota. As at 13 December 2001, the capacity utilization of the nation's agroallied industry stood at 34.6%.

At this juncture, one may want to ask, "What are the factors militating against an enhanced and improved capacity utilization in agroindustry?" The following factors have been identified that contribute to our low-level utilization of capacity.

- High interest rates and cost of funds.
- High acquisition cost for land and buildings for industrial use.
- High infrastructural and set-up costs.
- High operating and production costs.
- Inconsistent and unfavorable government policies.
- Diminishing real per capita income.
- Massively devalued local currency.
- Inadequate supplies and availability of high quality raw materials.
- Very weak linkages and partnership between agroindustry and the producers of agricultural raw materials.
- Low level of technological innovation in the industry.
- Large-scale influx of imported and cheaper alternatives.
- Lack of reliable economic data.
- Insecurity.

Lifting the problems of high cost of funds, lowering production and operating costs, and strengthening the weak linkages existing between agroindustries and producers of raw materials provide the key to unlocking the productive capacity of the Nigerian agroindustry.

Our experience

Goldchains International Ltd. is a supplier and exporter of bulk agricultural raw materials. Our business includes the manufacture of food products such as nutritionally enhanced ground rice, beans, flour, instant fufu flour, pounded yam flour, plantain flour, and custard powders with various flavors, produced for higher income consumers and for export. Our other manufacturing interests are the commercial extraction and refining of vegetable oils from oil seeds, the production of hydrated lime from stones, production of pharmaceutical grade gum arabic powder, and dehulled sesame seeds. All these value-added products are produced for the export markets from processing plants within Nigeria. We have a combined capacity of nearly 10 000 t/yr of all these various products, with a turnover between US\$3–4.3 million/year.

We survive in the very harsh operating environment with market entry barriers by learning to turn our production constraints into opportunities. We achieved this by first coming to terms with the *hard truths* and *realities that cannot be ignored*.

1. Today's realities

The world is now a global village with a global market. Competition for market share is no longer among local producers but with the rest of the world. To compete in a dynamic, changing, and innovating global economy, we must be ready to do business differently; it's no longer "business as usual." We have to come to terms with the fact that our competitors are accessing cheap sources of long-term funding; we must therefore strive to access similar funds and become export- and dollar-oriented. To compete, we must have competitive information about what

other producers are doing and how they do it. It is now necessary to subscribe to market watch and trade information services for very timely market reports on prices, changing consumer behavioral trends, and how they affect demand, also for information on cutting-edge technology to improve quality, efficiency, and reduce production costs. We must access these new technologies to produce excellent products that satisfy strict global requirements for quality, safety, and hygiene.

2. Adoption of contract processing as a manufacturing policy

We decided as a policy to take advantage of the available excess capacities in our nation's agro-processing industries across the country, covering every imaginable type of agroindustries. Our aim was to free ourselves from the high prohibitive cost of setting up new factories for our diversified product range and yet take advantage of new technology, and avoid being bogged down by high operating costs, multiple government taxation, labor problems, etc.

This is how contract processing works. Our business exists to satisfy our customers' needs; contract processing begins with knowing what our customers require in terms of quality, packaging, and other product specifications. We find a manufacturing plant with processing equipment and personnel to process the required products to meet the customers' specification. A processing contract is then drawn up where we provide preprinted packaging and raw materials while they provide us with finished products for a processing fee. An input-output standard is agreed, so that for every unit of raw material, we know precisely what output of finished product is expected. An agreed advance fee is paid; we then closely monitor their contract production for compliance and performance.

Contract processing opens you up to new product ranges and market opportunities. Heavy investment in new plant and personnel is not required. You are not geographically restricted; the world is your constituency. You go where the returns are highest. You enjoy tremendous production flexibility and can access the latest technologies for only a small processing fee.

3. Sourcing reliable and sustainable raw materials base through backward integration

The Nigerian agricultural production system is characterized by subsistence smallholder production, often in scattered, irregular plots. They are geographically dispersed; they are not organized; and the cost of bulking and consolidating their produce for commercial supplies is enormous. As a result, farmers' production is not tied to demand from agroindustry. This leads to fluctuations in demands and supplies with a dangerous influence that destabilizes the business of both the producers and the agroprocessors. We can help the producers to get better organized and empower them to realize their full productive capacities through contract farming.

This is how contract farming works. You identify viable farmers from producing communities producing core products and help to get them organized into groups and cooperatives. You sign production contracts with them for the volume of raw materials you need. You provide them with inputs, seedlings, extension support services, and some cash (not more than 20% of

the product value at harvest). You agree with them on a minimum price at which they will sell the harvest to you. You get the community leaders to ratify the agreement between you and the producers. You monitor production closely and plan the periodicity of production and harvests to provide you an all-year round supplies of raw materials.

Contract farming guarantees the supply of consistent supplies of raw materials of a reliable quality at an affordable price when agroindustry needs them. It provides the farmers with an assured demand, enabling them to increase agricultural production, and moves them from the vicious circle of subsistence farming to commercialized agricultural production. It encourages a high adoption rate of new production technologies among the farmers. It enhances the farmers' incomes and generates rural employment. Agroindustry becomes more competitive with better control over the one of the critical success factors of production.

4. Funding

We must take advantage of the numerous new windows now available for long-term funding at very reduced interest rates such as the US EXIM (Export-Import production credit facility with interest rates below 8% per year). We have to become export and dollar-oriented where at least 50% of production will be developed for export.

5. Professional expertise

We must use the services of professional trade consultants in all the critical areas of business—i.e., finance, marketing production, quality management, packaging, and legal services.

6. Market information

Finally, the top management of every agroindustry must create time to network, attend conferences, workshops, seminars, trade exhibitions, fairs, visit research institutes, collaborate with relevant NGOs and development agencies such as USAID, UNDP, etc. Corporate survival now depends on building synergies. We can no longer operate as an island to ourselves.

Conclusion

I have highlighted the problems of low capacity utilization in the Nigerian agroindustrial sector. I have also demonstrated how this can become a blessing in disguise for both the agro-processing industries (if they reposition themselves to offer contract processing services) and the contract processors because of the opportunities of entering new and existing markets with higher returns.

Linking grain (sorghum and maize) farmers with the beverages industry: the Guinness experiences

S.A. Bello

Guinness Nigeria Plc, Lagos

When the ban on malted barley importation became very effective in 1988, Guinness Nigeria had in place all necessary groundwork and mechanisms to source raw materials (maize and sorghum) locally. Import licenses for other materials were also tied to owning a viable (not necessarily sustainable) farm. Our first major direct contact with grain farmers, however, started in the 1995–1996 season. A variety of sorghum (ICSV 400), developed and made available by ICRISAT-Kano, was judged in our laboratories to be of excellent malting quality. Seed enough to plant 5 ha was sourced from ICRISAT and distributed to five farmers in 1995.

A total of 5.8 t of pure seed was harvested to form our take-off seed in the planting season, 1996. At the start of the planting season in 1998, we had 98 outgrowers/farmers with a total planting area of 120 ha. In addition to the supply of pure seed, we supplied established plots with seed-dressing fertilizers. Visits were made to plots two–three times between planting and harvesting. By 2002, Guinness Nig. Plc. is sourcing about 40,000 t of sorghum grain (yellow and white) and about 20,000 t of white maize.

The pattern of our buying operation is as follows. We collect a letter of intent from would-be suppliers, (grain merchants, middlemen, big-time farmers, etc.). Our network of market information checks/investigates the activities and strength of would-be merchants. We analyze current market information data and working data from the corresponding period in the past; forecast a price regime for intervals of 2 weeks, and agree on LPO price delivered at our buying centers. Orders/LPOs (that are time-bound) are issued. Trained personnel at buying centers receive grain into our warehouses after all necessary quality checks.

Problems of Guinness Plc in sourcing raw materials

- The logistics of visiting and giving timely agronomic backup to smallholder farmers in far locations was very difficult and costly, also the logistics and cost of bulking grain from outgrowers.
- Farmers were not patient and sold off their harvest at the slightest delay.
- The variety had excellent *tuwo* and general food quality and therefore ended up in farmers' pots.
- The price agreement was not respected. In a season when sorghum was scarce and prices were high, growers would not come to us. The few that came tried to cut corners by adulterating the grain. In a season when sorghum was available and prices were low,

growers wanted to keep grain with the hope of price improvement or dumped all kinds of grain at our doorstep. This led to high levels of rejection at buying centers.

- Growers viewed fertilizers supplied to them as “our money,” “our own share of Nigerian oil money,” and had no respect for agreements.
- There was a general lack of honesty.
- Strong feelings against alcohol in many locations stopped the flow of grain.

Farmers showed a strong sense of loyalty to middlemen and grain merchants (a nongrower had a stock of our grain in his warehouse up to half of my own stock for a season).

ICSV 400 was introduced to farmers and can be sourced at normal terms with other sorghum types presently. We can get pure, near homogeneous grain with a few growers (but it is not enough to meet our needs). We have a better understanding of farmer behavior and marketing channels. We at Guinness Nig. Plc are not in a hurry to deal directly with small-scale farmers. We are, however, interested in working with any group that can put more money in the hand of the farmers. This informed our proposal tagged *Farmgate Alternative*.

The Farmgate Alternative

Ideally, the sourcing of grain by agroindustries should be direct from farmers. Presently, most industries purchase grain from speculators who have earlier bought from producers/farmers. Some consideration should be given to buying directly from farmers as this will lead to some considerable advantage to both the industry and the farmers. Basically the farmgate alternative implies breaking into the grain marketing chain at the farm level. Direct sourcing of raw materials will, however, require a strategy and some investment at the grass-roots level.

The strategy

1. Identify farmers and potential farmers' fields. This could be done during preliminary crop prospect survey (in late August–early September). A crop prospect survey is an annual operation that can be carried out by the industry to determine the extent of cereal planting and establishment.
2. Draw up a list of farmers during the final crop survey in early October. Discuss with listed farmers their yield prospects and possible sale and delivery to designated mills/warehouses.
3. Submit the list of confirmed farmers and grain type and quantity to the agroindustry or its agent by mid-October.
4. Distribute a “Farmgate Order” made out by the industry or its appointed agent to farmers during the second and third week of November. Commence grain intake and normal inspection at intake point during the first and second week of December. Farmgate buying should terminate by the end of February.

Where a company already has certain mechanisms in place, such as a crop prospect survey, market survey, and grain inspection operations, this method may pose no extra cost.

Key factors for success

1. **Early buying:** Farmers generally lack storage ability and capacity. Speculators take advantage of this to buy cheap from the farmers. The grain is then stored minimally for about 5–8 weeks before it is sold to companies. Use of the farmgate alternative by agroindustries implies that the competitors will be the speculators.
2. **Early payment:** The financial base of farmers is generally poor. They will prefer quick; near- on-the-spot type of payment (minimum delay, say one week).

Advantages

There are quality and price advantages associated with the farmgate alternative. For the industry, high-grade grain will be received without being mixed. Mixing of high and low quality grain is almost always done at speculators' warehouses

Secondly, grain of higher homogeneity and purity will be available because grain batches of the same source will be bulked and their origin can be identified.

Thirdly, there will be less infestation because there is usually no old-season grain with farmers (no carryover) that could serve as inoculum. Most infestation occurs at speculators' warehouses. Therefore, farmgate grain will require less fumigant use. Finally, only fresh new season grain can be obtained at the farmgate.

The farmgate alternative is about removing/reducing suppliers' margin by dealing directly with growers/farmers (this will encourage production) and bypassing market charges, both of which constitute about 8–12% of present grain purchase costs.

Secondly, intensive adoption of the farmgate alternative in the first year may likely improve grain requirement by 15–25%. This will lead to a significant reduction in costs and large savings for the company. In conclusion, the farmgate alternative will enable the industries to assist farmers directly, as it provides them with an assured market for their grain.

Sharing experiences: Discussions, questions, and comments

1. **Dr Abdulkadir Gudugi (USAID).** How was pineapple chosen? Is it because there was high demand for natural products in Europe? Or did you choose the produce for some other reasons? Besides, was there any importation in Ghana of pineapple juice before this group was set up?

Answer: Both Dr Tony Mensah and Takyi Sraha responded in the affirmative. The choice of pineapple, as Dr Mensah pointed out, was because of his awareness of the huge demand for organically grown fruit juice in European and American markets. On the issue of availability of other imported juice in Ghana market, Tarki Sraha noted that even though there were other imported juice products in Ghana markets, this did not affect Athena since the company exported its products in bulk drums. But to a certain extent, Astek was affected.

2. **Dr A. Gudugi.** How do you manage power outages or failures? Do you arrange a stand-by generator? What is the impact of running the generator in terms of profitability?

Answer. The problem of electricity supply was obvious 2 years ago. But after complaints to government, special arrangements were made to supply enough power to the industrial cities where the majority of the plants are located. However, those industries in the rural areas and remote places are still adversely affected in terms of higher costs of production and lower profit levels.

3: **Dr A. Joshua, Premier Seed Nigeria Ltd, Zaria.** Can we share from your experience, the effects of the emerging globalization due to WTO and ECOWAS trade policy on your exportation activities?

Answer. Since inception, our major interest was the export market. The companies have been doing quite well to produce standard juice that has been competing with other imported juices

4: **O.J. Shobowale.** Nigeria is just trying to float three farmers' cooperative liability companies. Generation of capital funds to buy shares in the companies has been a limitation in the takeoff of the companies. How did Ghana jump this hurdle?

Answer. The World Bank provided a soft long-term loan of 10 years and with interest rate of 7%. The cooperatives used this fund in buying the shares, hence there were no problems.

5: Why is it that farmers turn away from taking advantage of the company price during the glut season? Is it not an anomaly?

Answer. R. Attipoe responded to this question and attributed this action to the presence of other processors. However, he noted that this anomaly was not extensive. Farmapine is in the process of educating the farmers in the technique of marketing.

6: Technoserve gives some food services, yet it is a nonprofit organization. How is it funded?

Answer. Funding is provided by USAID. Besides, a small service fee is charged just to cover overall costs of operation.

Question directed to Mr. Boma Anga of Goldchains Ltd., Nigeria.

Dr A. Gudugi. The sharing formula between your company and contract growers is a source of concern. Is it because ginger has no alternative market that makes this formula work? Because my experience with rice is that if local middlemen could pay higher prices, the farmers would breach the terms of contract.

Answer. Ginger is a competitive crop especially in international markets. Presently, the number of exporting countries has dropped considerably from 12 to 5 and Nigerian ginger is highly sought for, because of its unique characteristics (such as high oil content). It is actually a choice crop. Without the contract farming arrangement, local farmers cannot provide more than 5 t/ha as against 20 t/ha under contract farming. Besides, the sharing formula is not static; the company is quite flexible to adjust in cases of visible competitors. In a nutshell, it is not quite easy to breach the contract since the reputations of the community and the Chief are at stake.

General matters

1. Chief Moses A. Makinde-President of Nigerian Association of Small and Medium Enterprises. How can we ensure that technologies that are developed are commercialized?

Answer 1. Prof. Peter Oyekan of IAR&T said that nearly all research institutes normally have stakeholder meetings where new ideas are disseminated. Also, ADs are constantly linked with research institutes, at least monthly, to discuss new findings and training. Besides, the doors of research institutes are open for anybody to visit for any assistance.

Answer 2. Mr. Bob Booth encouraged the participants to try the experience of contract processing of Boma Anga.

2. What is the relevance of engineering science in agriculture? This aspect has not been encouraged so as to replace crude methods.

Answer. Prof. A.O. Ogungbile noted that much had been done in this area, as there were institutes and agencies responsible for this. For instance, the IAR had developed a small-scale animal traction technique, which was available to local farmers. Also, better ways of controlling weeds were available and extended to farmers via extension agents.

Prof. A.O. Ogungbile. Is there any forum where the different organizations meet? Do we have an inventory of technologies to be able to find gaps? What are the problems of group formation?

Answer 1. Dr A. Gudugi said that RUSEP was not research but the project should be involved in inventory-taking to assess the available technologies. On the issue of problems of group formation, he believed that farmers would only come together during times of glut but in a lean season, they would sell to the highest bidder. Here, caution should be exercised.

Answer 2. Dr. Dyno Keatinge pointed out that Dr Patrick Kormawa had been working to ensure that there are informal and formal linkages.

Answer 3. Dr. Bob Booth was, however, supportive of middlemen and could not attribute all problems of group formation to them alone. RUSEP actually needed them so as to learn the technique of commercialization from them.

Closing remarks

The session was brought to a close at 1.05 pm.

Information and communication support for agricultural growth in Nigeria

Dr Ola Ogunyinka

Communications and Information Services, IITA, Ibadan

The project aims to strengthen the capacity of farmer assistance organizations in Nigeria to package and disseminate information to farmers, thus enhancing information flow. It is hypothesized that increasing availability of information in appropriate formats for farmers and improving communication channels which will increase farmers' use of agricultural technologies thereby increase their productive capacity

Project partners and activities

The project is a partnership between National Agricultural Extension and Research Liaison Service (NAERLS) based in Ahmadu Bello University, Zaria, Communicating for Change (CfC), a Lagos-based NGO, IITA which coordinates the project, the Federal Ministry of Agriculture and Rural Development (FMARD), and USAID—the donor. Expected results are increases in the institutional capacity of farmer assistance organizations, in farmers' use of agricultural technologies and market information, and in private-sector sales of selected agricultural inputs such as improved seeds. Enhanced communication channels should help to connect buyers and sellers of selected agricultural inputs.

Key activities of the project will include establishing a network of agriculture information makers and information seekers, increasing information available to farmers by establishing farmer information/resource centers, and increasing the capacity of information makers and disseminators. Field testing of available technologies will be developed and information disseminated on available technologies. The project is expected to focus on six selected states in its pilot phase. These are Abia, Adamawa, Kano, Katsina, Niger, and Oyo.

Criteria for choice of technologies

The technologies to be disseminated will be selected using the following criteria. Their use is currently limited due to lack of widespread information. Inputs are locally available. The technologies have a record of proven success in the area where they are in use. Adoption will lead to rapid farmer income generation.

Dissemination of information

Basically, dissemination of information is the primary responsibility of farmer assistance organizations in extension, e.g., the ADPs and NGOs. The project will collaborate with these. The project will also establish resource centers in the states selected in collaboration with the ADPs.

Farmer field days will also be considered as a way of introducing new information materials and promoting new technologies.

Farmer resource centers

The resource centers will serve as drop-in centers for extension agents and farmers. They will be located in such a way as to make them easily accessible to the target user groups—the farmers. Mixed media and technologies—posters, prints, radio, videos, CD Rom, Internet facilities—will be adequately provided. The Technical Committee of the project consists of the following members: Project Coordinating Unit (Chair), NAERLS, CFC, USAID, and IITA.

Reducing the channel of distribution for effective marketing of agricultural produce in the rural area

Mrs Ngozi Ajuonu

Rural Women Foundation, Lagos

Effective channels of distributing agricultural produce have been over the years a source of concern not only to the rural farmers, but to policymakers at different levels, practitioners, donor agencies, NGOs, and to the research and teaching community. This paper will address the problems associated with channels or chains of distribution and proffer solutions on how the chain can be reduced to enhance good returns on investment, and increase per capita income and the overall economic development of the rural farmers at the grass-roots.

Research has shown that both the farmers themselves and the policymakers have neglected effective marketing of agricultural produce. The resultant effect is that the extortionate middlemen/merchants determine the exchange pattern to the detriment of the rural farmers who lack the economic will and organizational framework necessary for such power play. At times, because of this poor distribution channel, most of the farmer's produce gets wasted even before it is collected or assembled by the wholesalers.

Channels of distribution

Channels of distribution for agricultural produce involve the various outfits through which the farmers' produce passes before it gets to the final consumer. A normal distribution chain is as follows.

Farmer → Wholesaler → Retailer → Consumer

The farmer grows and delivers to a central collection point.

The wholesaler collects, "grades," stores, and delivers.

The retailer promotes, stores, packs, and gives credit.

The consumer transports from the shop, finally processes, and consumes.

It should be noted that some agricultural produce requires a longer and more complicated channel of distribution with many different organizations involved in the marketing of the produce, while others can be effected with two or one, or even no middlemen (wholesaler and retailer) at all. At times, the word *middlemen* has unsatisfactory connotations, despite the fact that they play a few important roles in the distribution channel, since this marketing function has to be performed by some organization other than the farmer.

The words *gross margin* often used by middlemen is not all profit. It is often used to describe the difference between the price middlemen pay for produce and the price the produce is sold for. This marketing function that is undertaken by the middlemen costs money. The proportion

of the final selling price that is spent on marketing is unimportant. What matters is how much is spent in relation to how effectively the marketing task is performed.

In the rural areas, different channels of distribution exist for farmers and their produce depending on the season and the particular consumers of the produce and this accounts for the low turnover recorded by the farmers. Rural farmers select their own outlet that they consider best. In doing this, they consider what the middlemen want. These include a reasonable margin, covering cost and producing profit, produce that is easy to store and can easily be sold to the next channel in the marketing system or the final consumer, and a reliable supply at a constant price.

Effective and efficient marketing system

The policy objective of this paper is to reduce rural farmers' long, typical, or traditional distribution channel or chain in the marketing of agricultural produce and replace it with a more focused, organized, and rural-based system that will control, if not eliminate, the problems encountered by farmers and consumers. This system is intended to improve the farmers' welfare and income, and the overall development of the rural poor. It will equally tend to satisfy the consumers because they are the people who must be recognised in any good marketing system.

Recommendation 1: Establishment of agricultural marketing cooperatives

This paper recommends that rural farmers should come together, pool resources, and establish agricultural marketing cooperative societies. This is a business organization that is established by a group of persons with at least one economic problem with the aim of solving their problems through self-help, joint action, and mutuality. The benefits of these effects are enjoyed directly by the members in their dual capacity as owners/customers, owners/employees, etc. Cooperative societies are classified according to certain criteria including function, the sector of the economy for its activities, the legal status of the society, the liability of the society on liquidation, the level of business integration between members and society, etc.

Agricultural marketing cooperatives can be set up to function in two ways. (1) Rural farmers come together to establish and operate communal farms at the primary level and market their produce through a marketing cooperative outfit at the secondary level. (2) Rural farmers have their individual farms or "households" and market their produce through a marketing cooperative outfit at the primary level. The benefit of this system is that, at all levels, the farmers are the owners and beneficiaries of these cooperative societies, and reap directly the benefits of their joint action. The consumers will equally be satisfied since a well-structured system is in place.

Recommendation 2: Produce marketing boards

This paper recommends the establishment of produce marketing boards by the government in areas where cooperative structures cannot be put in place by the rural farmers to regulate

and control prices and wholesale operations for the benefit of the farmers and consumers. An effective market information system will enhance price information from the NGOs and ADPs to the farmers and consumers.

Conclusion

This paper addressed the problems of the rural poor, especially the farmers. The policymakers at different levels should make policies that will favor the farmers by implementing this paper's recommendations. The government can only encourage the farmers to set up cooperatives. The establishment of cooperatives should be done by the farmers themselves and not by the government.

"A fruitful connection"

Successful production—agroindustry linkage in pineapples

Takyi Sraha
Technoserve, Ghana

Technoserve is a nonprofit international organization, which is presently operating in 19 countries of Africa and Latin America. The mission of Technoserve is that of helping entrepreneurial people in rural poor economies to create wealth, income, and opportunities which will lead to economic growth and development. In Ghana, the crops of interest to the organization are pineapples, cassava, vegetables, grains, legumes, medicinal plants, and oil palm since these crops are prevalent and have greater potentials. But specifically, Technoserve is concentrating on pineapples.

In 2000, pineapples contributed about 16% of agricultural net total exports for Ghana and constitutes about 42% of the horticultural sector. At present, Ghana produces about 70 000 t of pineapples, but exports 45 000 t. From this quantity, large-scale farms supply 45% while small-scale farms supply 55%. Production of pineapples has increased from 22 000 t in 1994 to 62 200 t in 2000. Exports increased from 15 000 to 40 000 t. Increase in exports was due to sea freighting. Processing increased from 1000 t to 5250 t. In Ghana, the sales channel is such that 65% of pineapples are for the export market, 25% are for the local market, and 10% goes to local processors. The local price of pineapples is US\$40/t compared to US\$80–100/t for export. Local prices barely cover the cost of production.

Technoserve's history

Technoserve was incorporated in 1993 with the goals of offering assistance to farmers in the area of organization; strengthening cooperatives; training in the democratic process; providing management training in basic accounting (costing), inventory management and production; practical training in modern farming practices, integrated pest management and maximum residue levels; and also to provide a market link for farmers, local processors, and export. Presently, Technoserve is working with three pineapple cooperatives.

Technoserve's assistance helped to persuade the World Bank to select cooperatives for the creation of Farmapine pilot pineapple exporting business. The farmers' cooperatives are linked to three agroprocessors, (1) Astek Fruit Processing Company (local markets), (2) Athena Food Limited, and (3) Jubilee Industrial Complex. Most of the linkage (70%) is with Astek. Technoserve acts as broker between the farmers and processors. It secures contracts between five cooperatives with Astek. Under Astek, the cooperative was to provide 40% while the middlemen provide 60%.

Benefits of cooperatives/farmers

There is a ready market for nonexport quality fruits. Under the agreement made with Astek, the farmers earn a premium if their quota/target is exceeded. They enjoy preferential treatment with respect to payment, which is channelled via the cooperative account. The arrangement enabled cooperatives to deduct levies on fruit supplied.

Benefits to processors

They are able to plan effective production since supplies of fruit are assured. Factories are confident of constant supplies even during lean seasons.

Constraints associated with the arrangement

Processors may not adhere to payment terms. Cooperatives, at times, are not able to meet their supply quota and some members are reluctant to supply in the name of the cooperative. Members turn away with their fruits during glut season (May–July).

Conclusion

For such arrangements to work properly, we have to look at the issues of commitment, honesty, and communication.

Lessons from Uganda on developing market opportunities

Dr Shaun Ferris
IITA, Uganda

Before market liberalization, there was no need for a market information system (MIS) since government purchased all cashable crops. But the challenge now is greater than ever. How do you make agricultural production more competitive and link farmers to market? The answer is to link via adequate MIS.

In Uganda, IITA has pioneered the development of an MIS website for Uganda—the FOODNET strategy market engagement project. The basic objectives are market—trade analysis, MIS, promotion of collection market centers, and to ensure market links. What are the basic reasons for MIS?

- Using new technology with simple plan to collect, analyze, and disseminate information between farms and trade.
- Providing a more transparent market place.
- Empowering farmers to negotiate better sales prices.
- Providing farmers with information to make them more competitive by seeking premium prices.
- Encouraging arbitrages.

Practice of MIS in Uganda

MIS in Uganda has three components. Local MIS aims at providing localized information to both farmers and traders. Presently, local farmers still think that government fixes prices, even though government has not fixed prices for the past 10 years. National MIS targets the needs of the policy sector and larger traders. Regional to international MIS is needed for export markets.

The national MIS collects primary and secondary data on and off lorry and farmgate, wholesale and retail prices on a weekly basis, and daily prices from the main national markets. Information on volume traded and the quantity supplied and demanded is also available. Besides the efforts of IITA–Uganda, we have linked with other allied agencies for time series data (UBOS), general weather (FEWS), and production and price projection (IDEA).

The national information service establishes data collection centers for macrodata via FM radio stations and computers. The practice of MIS at the local level is intended to assist farmers in the following ways:

- Target information to a district or 2–3 districts.
- Collect information on relevant crops.

- Collect information from the country level and integrate with the trend from main national markets.
- Disseminate information in local languages.
- Produce information bulletins and organize workshops.

The main reason for the local MIS is for farmers to use the market information in negotiating for better prices. It also assists them in collective marketing activities. However, MIS should be linked with other marketing services. The local MIS is coordinated from Kampala with three pilot sites with data recorder, FM radio, phone, etc.

Market information is disseminated on FM radio stations, in newspapers, business papers, magazines, agricultural reviews, e-mails, etc. For the radio medium, currently we have 12 radio stations providing a comprehensive broadcast service under six programs. MIS is in FOODNET website—website of market information for Uganda and Rwanda.

Who uses the market information?

Farmers' groups in Rakai have gained 15–25% more on sale prices (farmer empowerment). More traders know where profit is (spatial arbitrages). An NGO is to develop a credit and storage system. Relief agencies use it to monitor food security. So far, there have been over 80% responses from business communities on their rates of the FOODNET activity.

Problems

- Expensive dissemination costs on radio.
- Lack of partners in the private sector.
- Inconsistency in sending information from collectors.
- Poor communication with data collectors.
- Limited access to regional information.
- Poor local/national policies for improving market accessibility for producers and traders.

What RUSEP should consider

- Commodity-focused trade flow.
- Presence of existing MIS and information available.
- Determine how traders gain information.
- Which information do farmers have and the commodity prices.

Promoting agricultural commercialization

Dr John Flynn

Winrock International, Arkansas, USA

Highlights

Winrock International is interested in RUSEP as the basic objectives of RUSEP collaborate with the mission statement of Winrock International that involves linking farmers to market communities. It does not just involve finding markets, but looking at markets at broader dimensions, via technical and financial aspects: from farmgate to the consumers (local and international). Globalization offers opportunities for rural sectors to integrate in the global market for better marketing. The international communities have recognized that for poverty to be reduced, the local people must be fully integrated in the global market.

Basically, there are about three models that have been identified and developed that could lead to increased productivity, gaining economies of scale, etc.

Contract farming model

This is an effective way of organizing farmers and increasing efficiency in the market. Contract farming, however, works well with a well-organized market where there is low level of indiscipline. The method introduces financial liquidity into the marketing system.

Farmer-owned system

Farmers become owners of the company. This is possible with specialized products and works well for both local and international markets. The system ensures the addition of value to the produce. Coffee, pineapples, etc., are some of the goods that are traded in this system.

Organizing farmers among communities groups

This helps the farmers to increase economies of scale so as to have readily available markets. This is the best model as the farmers are organized within their production systems. Winrock International promotes organizing farmers into groups for proper credit extension and other input transfer. Information is better transferred by commercial agencies that deal with these inputs, not necessarily by extension agents. As such, storeowners need to be trained on both agronomic and business techniques. Here, the storeowners must know their sellers.

It is useful to introduce financial liquidity into the product supply chain. Technology transfer is built on the premise that farmers want to make profits. But market risks undermine the profit level of the farmers. The challenge is how to avert the risk. The solution may be diversification, which, of course, does not work well because of the principle of commercialization.

Discussions, questions, and comments

Presentation by Communications and Information Services, IITA, Ibadan

Dr A. Joshua, Premier Seeds. The ICS looks too government-centered. Can we involve the private sector? I think the private sector has a role to play.

Answer 1. (by the Chairman, Dr Ingawa): **The private sector is fully involved.** There is an NGO (Communication for Change) already incorporated. In the execution stage, several private sector practitioners will be involved.

Answer 2. (by Dr Singh): We are also trying in DAIMINA to involve the private sector. The DAIMINA project proposes to use agrodealers as the source of information.

Sharing experiences: a synthesis

Dr Chuma Ezedinma
IITA, Ibadan

The experiences we have shared today indicates that production to market linkages are feasible using farmers' groups and associations. Nongovernmental organizations can facilitate the formation of farmers' groups. Private and bilateral funding is needed to improve farm agribusiness linkages. Government support will be vital for policy and infrastructure, especially those that come within the domain of public goods.

Strengths and weaknesses of groups

The strengths of using farmers' groups were identified to include availability of a ready market, guaranteed prices, formal contracts, enhanced capacity building and training, standards and quality. Farmers' groups are assured when they know that there is a ready market for the commodities they produce. Farmers' groups are assured of prices for their output ever before production and so they are able to plan in advance. Contracts ensure reliability of payment, reduce costs for agroindustry, and improve price signals to farmers at the grass-roots level. Working with groups also eases the problem of capacity building and training. When farmers work in groups, they begin to appreciate the essence of standardization in units of measurement, quality of products, and budgeting. Agroprocessors are able to trace the source of their inputs of raw materials.

The weaknesses of working with groups are shifting allegiance, insincerity, loose organization, and weak financial base. Allegiance can shift, especially when prices of commodities fluctuate. This usually happens for commodities that have alternative uses and/or alternative markets. Examples include sorghum and maize. Farmers may shift their allegiance to middlemen in such circumstances. Groups and individuals in the groups may be insincere and may not adhere to agreements. Sometimes groups may be loose associations with no apparent leadership or coherence. Most farmers' groups have a weak financial base and are unable to take up production opportunities.

Market linkages

Market linkages require a champion driver to initiate contact with institutions, agroindustries, and processors, discuss the supply of commodities with agroindustries, reach an agreement on volumes to supply, time to deliver, quality and standards, prices, and develop a contract or a Memorandum of Understanding with the farmers' group. Farm agribusiness linkage is the surest way to commercialization but this needs enhancement in enterprise development and access to credit.

Arrangements

Arrangements in farm agribusiness linkages may include contract farming. Contract farming is effective for well-defined market niches, for products with premium prices, and organized farmers around community groups. Another arrangement is contract processing. Public-private funding is required for the implementation of the market information service (MIS) especially for sustainability. In the long run, private funding may provide the bulk for MIS. Support services in farm agribusiness linkages will include training, credit facilitation, focused extension services, and MIS.

Constraints

Infrastructure (and the lack of it) are the greatest constraints to farm agribusiness and the primary infrastructure problem is energy (especially electricity in Nigeria). Other constraints include loose farmer groups and nonadherence to contracts. A third general constraint is lack of mechanization, which usually facilitates processing. The absence of computerization and telecommunications is another problem. Bulking logistics may sometimes be too expensive, especially where farmers are scattered geographically in the country.

Opportunities

Opportunities exist in producer and processor profits with increased farm agribusiness linkages in the agricultural sector. There is, however, a need to provide bilateral funding to provide share capital, at least in the medium term. Opportunities also exist for the exploitation of private-sector funding for MIS.

Reports of State-Level Consultative Meetings

Report of the Abia State Stakeholders' Consultative Meeting held at Abia State ADP headquarters, Umuahia, Monday, 4 March 2002

A team of four multidisciplinary scientists successfully conducted a needs assessment survey of Abia State 21–29 October 2001 to decide the strategy for implementing RUSEP in the state. Following the completion of the survey, a consultative meeting of stakeholders was planned to provide a forum for stakeholders to discuss the report and provide input into the final report. This would be considered by the participants at the RUSEP National Stakeholders Workshop to be held 13–15 March 2002 at IITA, Ibadan.

The meeting was attended by 34 participants, drawn from various sectors. Others who attended included the Abia State Commissioner for Agriculture and Rural Development, Director of Agriculture, Program Manager and management staff of the Abia ADP, a traditional ruler, and the Press. The major objective of the meeting was to present the report of the needs assessment study (NAS) for Abia State to stakeholders for validation, possible amendment, and further suggestions to enrich the report.

Method

To provide appropriate background information, a short presentation was made to the participants. This covered meaning, objectives, activities, implementation strategies, expected outputs, partnership for project implementation, and the project achievements to date. Thereafter, a 3-page summary of the NAS report contained in the workshop materials provided to participants was formally presented. This was followed by a discussion of the report, which provided opportunity for clarification and deeper insight. Four syndicate groups were formed to brainstorm on the recommended themes for meeting. The group reports were discussed in a plenary session leading to the development and adoption of workshop recommendations.

Reactions to the NAS report

The following comments highlight the concerns of participants on the NAS presentation.

- RUSEP should emphasize mixed farming instead of the large emphasis on crops.
- What is RUSEP doing about livestock and other crops such as oil palm?
- There is need to classify farmers based on size because the needs are varied.
- One of the greatest needs of farmers is input supply, including credit. This should be available and timely. Farmers' associations can help to guarantee funds going to farmers.
- Farmers' associations should be involved in policy formulation because they will actualize the benefits of the project.
- Helping rural people make money from farming will require a lot of monitoring.
- How will you develop the manpower to sustain this technology transfer initiative?

In reply to these concerns, the RUSEP team expressed appreciation to stakeholders for the insightful comments and assured them that these concerns were carefully considered in designing RUSEP. Further clarifications were provided to lighten the grey areas.

Highlights of group presentations and recommendations

Group 1: Prioritization of technology delivery

The group recommends that RUSEP focus on cassava, yam, plantain, and rice in that order. These major crops should be planted with minor crops in mixed patterns such as cassava–maize–egusi/sweetpotato enterprises. To improve delivery, extension should work on early planting of cassava and establish small plot adoption trials (SPAT) on farms of individuals, farmers' organizations, and farmers' cooperatives. RUSEP should continue to involve extension agents and provide them with adequate motivation. Delivery points, such as agroservice centers, should be established in every LGA in Abia State.

Group 2: Linking farmers with market in the agroindustries

Farmer groups are better linked up through NGOs, ADPs, and individuals. While the RUSEP idea is laudable, undue government interference should be avoided. Cassava products (tubers, starch, chips/pellets, flour and gari) should be targeted to pharmaceuticals, textiles, book production, food industries, bakeries, and breweries. Yam products (chips, flakes, flour, and pounded yam flour) should be targeted to confectioners, hotels, and export industries. Rice products (flour, milled rice, rice bran, and cake) should be targeted to food-based industries, breweries, and bakeries. Plantain–banana products (flakes, drinks/wine, cake, and pudding) should be targeted to breweries, food industries, and hotels.

RUSEP should advise Abia ADP to link farmers with appropriate institutions through their Rural Institutions Development (RID) subprogram. Farmer groups can be better linked to agroindustries through group formation, registering with ADPs, NGOs, and direct marketing to the industries.

Group 3: Microfinance and support services

The microfinance institutions available in the state are Abia State Agricultural Credit Scheme, NACBRD, Agricultural Credit Guarantee scheme of the Central Bank, private moneylenders, and the local *Esusu* groups.

Problems of the microfinance institutions include the diversion of funds to unintended beneficiaries, rampant loan default, untimely disbursement of loans, unwieldy procedures in loan processing, lack of collateral, high interest rates, and inadequate funding.

Suggestions for improvement include the use of registered, viable farmers' cooperatives, reduction in the interest rate (less than 9%), channelling of loans through *esusu* groups, use of traditional rulers to identify credible farmers, and the use of price supports for commodities identified.

NACRBD branches should be closer to the people (to the LGA level). In addition, the following support services are required: good extension services, regular and timely supply of agricultural inputs such as fertilizers, agrochemicals, seedlings, planting material, and postharvest facilities such storage, processing equipment, etc., tractor hiring at reasonable prices, and the provision of good roads. Prioritized interventions are provision of credit, establishment of postharvest and storage facilities, and provision of access roads.

Group 4: Institutional linkages

The following institutions are vital to RUSEP implementation: state government, ADP, local government, research institutes, and NGOs. The state government should provide political and financial support to enhance sustainability while the ADP provides technical and market information to farmers through the well-motivated extension agents. The local government should make land available to interested farmers, encourage group formation and registration, and provide a network of access roads within the LGA. Research institutions should continue to generate appropriate technologies and disseminate to extension. NGOs should mobilize farmers to form groups and guarantee credit facilities to farmers.

The following agencies should provide needed funds for RUSEP: USAID, federal, state, and local government, viable NGOs, and other private sector institutions, such as companies and multinational companies.

Conclusion

Overall, participants were very happy about the RUSEP concepts as set out in the report and hopeful that RUSEP would be well-implemented as designed. The stakeholders considered the methodology sufficiently appropriate for technology transfer and commercialization. They expressed some fears and cautioned that the project should not be allowed to go the way of its predecessors. The lists of prioritized interventions, institutions, proposed funding mechanisms, and ways to improve delivery to farmer groups were endorsed at the plenary sessions as Abia stakeholders' recommendations for RUSEP.

Report of the Adamawa State Stakeholders' Consultative Meeting held at the Adamawa State ADP headquarters, Yola, Wednesday, 27 February 2002

RUSEP employed the services of a team of three multidisciplinary scientists to conduct a needs assessment survey (NAS) of Adamawa State, 21–29 October 2001. The survey was required to decide the strategy for implementing RUSEP activities in the state. Following the successful completion of the survey, a consultative meeting was planned to provide a forum for stakeholders to discuss the draft and provide input into the final report. This was considered by participants at the RUSEP National Stakeholders' Workshop, 13–15 March 2002 at IITA, Ibadan.

The meeting was attended by 47 participants, drawn from different sectors, including farmers' groups, agrochemical sellers, seed companies, credit institutions, fabricators, agroprocessors, and representatives from agroindustries. Many dignitaries attended the meeting. These included the Adamawa State Commissioner for Agriculture and Rural Development, the Permanent Secretary and Director of Agriculture in the Adamawa State Ministry of Agriculture and Rural Development, the Acting Program Manager and Directors of Adamawa State ADP, Zonal Managers of Adamawa State ADP, Local Government Chairmen, District Heads from Ganye (represented), Guri, and Hong districts, Chairman of the Adamawa State Practicing Farmers Association (PFA), representatives of commercial banks in the state, and input delivery agencies, and representatives of Women Farmers' Associations. The Press also attended. Thirty percent of the participants were women.

The major objective of the consultative meeting was to present the report of the NAS for Adamawa State to stakeholders for validation, possible amendments, and incorporation of further suggestions to enrich the report.

Method

A three-man team was sent by RUSEP to Adamawa State to present the report and use participatory techniques to elicit reactions from different stakeholders. These were a representative of the RUSEP Coordinating Office, a representative of the Project Coordinating Unit (PCU) of the Federal Ministry of Agriculture and Rural Development, and a member of the team that had conducted the survey. It turned out that the representative of the PCU at the meeting in Adamawa had also been part of the team that conducted the survey. The meeting was divided into two parts: opening session and working session.

Opening session

The opening session started with a welcome address from the Acting Program Manager for Adamawa State ADP. This was followed by a short presentation on RUSEP to explain the concept, objectives, activities, implementation strategies, expected outputs, partnership for project

implementation, and the project achievements to date. After the presentation, the Hon. Commissioner gave a welcome address and declared the meeting open. She had to leave for other state matters but asked the Permanent Secretary to stay through the discussions of the working session.

Working session

The working session focused on the discussion of the survey report. To provide adequate background information for the participants, a summary of the document was photocopied and provided for participants to study. After they had all gone through the summary of the report, the team made a presentation on the whole report with emphasis on the findings.

This prepared the ground for the discussion of the report by the group. To facilitate the discussion, the meeting was divided into four syndicate groups. The eight terms of reference that had guided the survey were divided into four, with each syndicate group having two. Each group was asked to discuss the report with respect to the assigned terms of reference. Each group had a chairperson and a secretary. Group findings were discussed in a plenary session to court wider contributions. Sufficient time was assigned for the group work and for the ensuing plenary discussions.

Reactions to the NAS report

Participants made the following general comments on the report:

- Why is cowpea not included on the list of crops for Adamawa? Everywhere you go you see cowpea. (Cowpea has a lower potential for commercialization/ industrialization than other listed crops. It is consumed only as *akara* and *moinmoin*.)
- Why is sorghum not listed? Sorghum is an important crop in Adamawa. (Sorghum production is still huge but shrinking. Furthermore, the people consume most of the sorghum produced in Adamawa State.)
- What is the attitude of RUSEP to tree crops and livestock? (In later phases of RUSEP, tree crops and livestock with good prospects for commercialization will be considered but now, RUSEP is limited to the crops identified by the people.)
- Is RUSEP concerned with technologies emanating from IITA alone? (RUSEP is concerned with all existing technologies that are relevant to the goal of commercialization, no matter where they came from.)
- Timeliness of inputs including fertilizer is important for success. (RUSEP is taking note of the concern for possible intervention.)
- Farmers also need credit. (RUSEP will also try to link farmers with credit agencies.)
- How did the consultants come by the figures shown in the report? (Consultants worked hand in hand with officials of the State Ministry of Agriculture and the ADP; the figures are valid.)
- Local Ministry of Agriculture should communicate more with farmers on production figures. (This was noted by the Permanent Secretary.)

Highlights of group presentations and recommendations

The report was highly applauded by all the groups and the recommendations were found generally acceptable. Highlights of group presentations are as follows.

Group 1:

- Identify the most likely areas and crops in the state where agricultural technology transfer might achieve the purpose of market-driven technology transfer and commercialization.
- Identify the types of technology and the level of adoption in terms of downstream activities (storage, processing, etc.) as they affect the major crops of interest in the state.

The group recommended that RUSEP should focus on rice at Fufore, maize at Ganye, groundnut at Hong/Mubi. If there was room for more crops, these should be sorghum at Mubi/Guyuk and cowpea at Michika/Mubi. The Permanent Secretary was of the opinion that RUSEP should write to inform the state government of the choice of locations.

RUSEP should focus on the following technologies in Adamawa State.

- Rice: parboilers, milling machines, destoners.
- Maize: shelling, milling, and grinding machines.
- Groundnut: decorticating and oil extracting machines.
- Cowpea: shelling machines.
- Sorghum: threshers.

The current adoption rates of these technologies in state: parboiling 40%, milling 70%, shelling 20%, oil extraction 25%. and decorticating 0%.

Group 2:

- For the identified priority major crops and technologies, assess the profitability at farm and market levels.
- Identify the constraints militating against market-driven agriculture (e.g., technology, infrastructure, input supply situation, and output markets).

The profitability analysis and the constraints to market-driven agriculture presented in the original report were considered acceptable for each of the identified crops. Some farmers questioned the sources of some of the figures that had been used by the team in the calculations. It was clarified that they were obtained from the State Ministry of Agriculture and the ADP. The whole group agreed with the presentation that the details as contained in the report were acceptable.

Few microfinance institutions are available in Adamawa State. These are The Bank of the North, Habib Bank, NACBRD, Agricultural Credit Guarantee Scheme of the Central Bank, and private moneylenders. Problems associated with credit through microfinance institutions in the state included loan default, diversion of funds to inappropriate beneficiaries, untimely disbursement of loans, high interest rates, and cumbersome procedures in loan processing.

Suggestions for improvement included proper documentation before loan is disbursed, involvement of the ADP, district and village heads in the identification of credible farmers, the use of registered/viable farmers' cooperatives, and reduction of the interest rate. The state government gave assurance that the Nigerian Agricultural Credit and Rural Development Bank (NACRDB) will soon take off in the state.

There was inadequate distribution of research results by research institutions, low commercialization of prototypes from research institutions, inadequate processing facilities and infrastructure, and inadequate funding of extension activities and inconsistent government policies. Group purchase was recommended for inputs such as fertilizers to bring the unit cost down and to ensure quality. Market outlets in Adamawa State are few. There are few local industries and most of the produce goes outside the state. Some materials even go across the border to Cameroon. The meeting suggested that creating solid linkages with contract buyers in neighboring states could ameliorate the situation.

Group 3:

- Examine the roles of existing functional farmer associations, community-based organizations, donor agencies including women's groups, and propose their future roles in the development and transfer of market-driven technologies.
- Examine the levels of private sector involvement in terms of input supply and output market in the state and propose ways to encourage greater private sector participation in input and output market development.

It was noted that farmers' groups were not actively involved in the promotion of commercialization of crops in Adamawa State. Some leaders of farmers' groups represented at the meeting found the example from Katsina State, where an NGO is organizing farmers into cooperatives, exciting and promising. They promised to visit Katsina and adapt the system for Adamawa.

The meeting suggested that setting up functional farmers' cooperatives would encourage greater private sector involvement in input and output markets. RID subprogram of the ADP should work in collaboration with the Cooperative Dept. in the Ministry of Commerce and Industries to mobilize farmers into groups for market-driven technology transfer and commercialization.

Commercial banks are currently far from rural communities but they could also be used to administer microcredit in rural areas. There is a need to enlighten farmers on input availability and application. Private input dealers should carry the stock required by the farmers. There are 288 women's groups in the state and 277 are registered. The meeting also added that the ADP should be funded to hire more extension agents to increase their reach. The meeting concluded that donor agencies such as the USAID, DFID, Ford Foundation, GTZ, should be approached for funding the commercialization-related activities of RUSEP. The federal, state, and local governments should also be approached for funding.

Group 4:

- Assess the present situation of market information system (MIS) and suggest ways to develop a more comprehensive MIS that can link producers, processors, and the end-users of agricultural products including NGOs and other organizations within and outside the state.
- Identify training needs for producers, processors, traders, entrepreneurs, etc., in support of market-driven technology transfer and commercialization in agriculture.

In addition to what was contained in the report, the group felt that public enlightenment by the use of mass media was necessary for price stabilization. The meeting also suggested that enumerators should be equipped with mobile phones to enhance communication. There is need to form commodity groups to ensure that inputs would be provided to the farmers on time. Farmers should be trained on improved farming technologies such as improved seeds, agrochemicals, farming practices, storage facilities and mechanisms.

Farmers should be educated on how to acquire information about available sources of credit facilities. The meeting concluded that producers, agroprocessors, and traders required a lot of training to lift the general performance levels to acceptable standards. Details of the required curriculum would depend on the crop concerned and the skill gaps noticed. Action plan for the implementation of RUSEP activities. The following action plans were emphasized.

- Farmers in the selected areas should be organized into commodity- and activity-based groups including women's groups and registered.
- Fertilizer and agrochemical requirements of farmers participating in RUSEP should be determined for the purpose of setting up of a mechanism to facilitate timely procurement by farmers' groups.
- Formal linkage between the financial institutions and farmers' groups should be established.
- The ADP seed multiplication plan for 2002 should include rice and groundnut seeds supply.
- Linkages with input dealers for the supply of hybrid maize seeds, improved rice seed (FARO 44), and improved groundnut (RMP 12 and ex-Dakar) should be established.
- Farmers' groups should be trained on group management, credit sourcing, farm management, etc.
- Farmers' groups should be empowered through training to be able to carry out seed production activities, input sourcing, group marketing, processing, etc.

Conclusion

The overall perception was that the stakeholders were happy to have been consulted. Farmers felt empowered and also happy to have made some contributions to the development of the project. The Permanent Secretary thanked all present for their sincere and honest contributions. He expressed the hope that RUSEP would be able to accomplish its goals of increasing agricultural productivity through market-driven technology transfer.

Report of the Katsina State Stakeholders' Consultative Workshop held at EEC Vocational Training Centre, Katsina, Tuesday, 5 March 2002

A needs assessment survey (NAS) was conducted in Katsina State October–November 2001 by a multidisciplinary team of three consultants. Following the study, a state-level meeting was scheduled to validate the NAS report and consult with the intended stakeholders. The deliberations at the state meeting will also be discussed at the National Stakeholders Workshop 13–15 March 2002.

A total of 55 participants who have a stake in the agricultural sector of Katsina State attended the workshop. These included the Commissioner for Agriculture in Katsina State represented by the Commissioner for Justice; the Chairman of Funtua LGA; the Chairman, House Committee on Agriculture, Katsina House of Assembly; the Managing Director and staff of Katsina ADP; branch manager Union Bank; Permanent Secretary, MANR; directors and staff of the Ministry of Agriculture; Project Manager, Katsina Arid Zone Project; the President and Secretary of the Katsina State Farmers Council (an NGO); the Managing Directors and representatives of Premier Seeds Nigeria Ltd and Alheri Seeds Nigeria Ltd; village heads of Maska, Goya, and Dukke; the identified RUSEP villages in Funtua LGA, and about twenty farmers from these villages, including women. The private and public media were also present. An unedited videotape of the workshop was produced. The primary objective of the workshop was to validate the NAS report with stakeholders in Katsina State and obtain more suggestions about the report.

Method

The Commissioner presented an opening address in which he pledged the support of the government to RUSEP. A short background summary of information on the concept, objectives, funding, collaborators, and approach of RUSEP was discussed. A summary of the NAS was also presented. The opinion and consent of the farmers with respect to their understanding and support to the project were sought. After a short break, the plenary session divided into two working sessions (i.e., Group I: technology transfer, microfinance, and support services; Group II: institutional and market linkages) each with terms of reference. Each group consisted of 16 people with a chairperson and rapporteur. Women farmers were equally represented in the groups.

Views of the participants at the workshop

Participants at workshop understood the concept of the workshop and likened it to the Sasakawa Global 2000 (presently in the state) concept with respect to technology transfer. They also understood the difference from SG2000 regarding the downstream (market linkage) sector, which they prayed should be strongly emphasized and pursued vigorously. The participants recommended the current bottom-up approach strategy adopted by the project as it has enabled the beneficiaries to participate in the planning and execution of affairs that influence their lives.

They stressed that the approach should be maintained. Groundnut and cotton should also be included as RUSEP crops later in the program to complement the state government's efforts in these crops. Both crops have great income potentials for rural households in Katsina State. Participants, especially farmers, expressed serious fears in respect of the following.

- There were doubts as to whether the project would effectively link farmers in the state to markets.
- There were fears of delay with implementation of the program in the state this season.
- There were questions about who would fund the training activities identified by the groups.

Group I: Technology transfer, microfinance, and support services

The technologies identified and suggestions are based on farmers' views. They are listed in order of priority.

(a) Land preparation

Constraint: Lack of tractors for land preparation.

Solution: Provision of animal traction with double or triple ridging capacity to increase hectarage, reduce drudgery and enhance timeliness in farm operations.

(b) Seeds

Constraints: Lack of genuine seeds; interference of the middlemen and adulteration and late arrival of seeds with respect to the project.

Solutions: (a) Provision of seeds in time before plowing, (b) Mutual coexistence should be established among seed companies, farmers, and extension agents, and (c) Recommended varieties.

Maize: OBA super I and II, PH5, PH6 to be supplied by Premier Seeds; O-1, JO-2, JO-Funtua, and 195 to be supplied by Alheri seeds.

Sorghum: Local varieties are available *Bakwankwama*, short *Kaura* and SK5912. Ensure seed purity.

Soybean: So many seed varieties that the farmers cannot identify by name.

Constraint: Failure of the seed companies to provide improved varieties to farmers' doorstep.

Solutions: Recommended improved seeds (Samsoy II, TGX 1448, TGX 536 1486, TGX 1019) should be provided by the seed companies. Non-shattering and medium height varieties are preferred. Some farmers still prefer the shattering variety because it is higher yielding but time of harvest is critical to avoid losses. Extension agents may assist farmers to identify shattering varieties. Seeds purchased from the seed companies should be dressed with the appropriate dosage of seed dressing chemicals for effective pest control. The recommended dosage of chemicals should be used to control armyworms, grasshoppers, and stem borers.

(c) Fertilizer

Constraints: unavailability and untimely supply.

Solution: Provide special allocation of fertilizer to the three RUSEP villages, Dukke, Goya, and Maska. Private companies can be involved.

(d) Storage

Comment: Storage facilities are not a problem for individual farmers.

Constraint: Farmers do not encounter storage pests in short-term storage but grain beetles, etc., during long-term storage constitute a problem.

Solution: Use recommended pesticides.

(e) Microfinancial Institutions (Union Bank Plc.) Bank of the North Ltd., NACBRD)

Constraint: Loan default

Solutions: Ensure proper documentation and identification of farmers who are to benefit from the loan to ease loan recovery. Loans should be given to groups and not individuals. Women's groups should also be considered in loan disbursement.

(f) Viable NGOs

Katsina State Farmers Council: It is worthy to note that last year, this organization had been able to negotiate a loan of about 29 million naira for its members at an interest rate of 19%. The NGO can assist the Katsina State ADP to do same for RUSEP farmers.

(g) Support services

KTARDA will collaborate with the State Cooperative Federation and the Farmers Council in group mobilization, formation, registration, and securing of loans from reputable financing agencies such as Bank of the North and Union Bank for disbursement to farmer groups in the selected (RUSEP) villages.

Group II Market and institutional linkages

Constraints: Market linkages are weak. Two flour mills located in Funtua LGA are not functioning.

Solutions: An organized market should be developed and supported by a guaranteed minimum price and market information service. Extension agents should be designated specifically from KTARDA in the Funtua LGA for the implementation of RUSEP activities. Loans should be provided in kind (to farmers) to include draught animals, plows, fertilizer, seeds, agrochemicals, processing machines, etc. Linkage with markets (e.g., flour mills) should be sought beyond the state, in Kaduna, Kano, etc. Women groups should be involved in the program especially in the area of cottage industries. Loans can be packaged and provided in kind in the form of processing machines.

Immediate training needs

- Training for itinerant contract sprayers in each of the selected villages.
- Immediate training on seed maintenance and viability tests. Resource persons can be drawn from the seed companies and KTARDA. Seed companies should establish some demonstration plots in the area.
- Training on storage of farm produce.
- Training of groups on business and cooperative management. Resource persons can be drawn from the Katsina Farmer's Council and the Katsina Cooperative Federation.

Administration of RUSEP in Katsina State, funding, and commitment

KTARDA should identify and provide a desk officer for RUSEP activities at the KTARDA headquarters. The desk officer will also execute the function of market linkage with industries for the RUSEP farmers, assist with the sourcing and packaging of loans to farmers, liaise with extension agents in the RUSEP villages, and provide market information using existing radio and television programs. KTARDA should identify extension agents for the RUSEP project in the three villages selected. KTARDA will continue to pay staff salaries involved in RUSEP.

Oyo State Stakeholders' Consultative Meeting held on 6 March 2002

A consultative meeting was held to provide a forum for stakeholders to discuss the report of a needs assessment study (NAS) undertaken by a team of multidisciplinary scientists and to provide input for the final report. This was to be considered by the participants at the RUSEP National Stakeholders Workshop 13–15 March 2002 at IITA, Ibadan.

The meeting was attended by 62 participants drawn from various sectors. Dignitaries included the State Commissioner for Agriculture, Natural Resources, and Rural Development, the Permanent Secretary and Director of the same ministry, Program Manager and management staff of the ADP, Local Government Chairman of Atisbo LGA, and some NGOs. The Press also attended. The major objective of the stakeholders' consultative meeting was to present the NAS report to stakeholders for validation, possible amendments, and further suggestions.

Method

To provide appropriate background information, there was a short presentation on the meaning, objectives, activities, implementation strategies, expected outputs, partnership for project implementation, and the project achievements to date. Thereafter, a 3-page summary of the NAS report contained in the workshop materials provided to participants was formally presented. This was followed by a discussion of the report, which provided an opportunity for clarification and deeper insight. Three syndicate groups were formed to brainstorm on the recommended themes for the workshop.

Reactions to the NAS report from the state

- High cost that usually drives the farmer to opt for substandard quality seed should be considered.
- Processing equipment should be simplified and made available to the farmers at prices they can afford.
- The project should involve the organized private sector in the marketing role.
- Farmers should know the prevailing prices of various types of produce, in order not to be shortchanged.
- Political and executive leverage is needed to ensure that the agricultural banks give a greater percentage of loans to farmers, especially on the recommendation of RUSEP.
- The lending rate should be reduced to one digit.
- Insurance schemes for farmers should be established.
- Agricultural inputs should be available as and when needed, in enough quantity and at affordable prices.
- The management, supervision, and training should be done in collaboration with OYSADEP, other relevant NGOs, and the private sector.

- RUSEP should enhance the linkage between extension services and microcredit institutions, e.g., NACRDB, OYSACC, LAMERP, FEAP.
- The issue of standardization should be looked into so that farmers' produce will be accepted in the market.
- The transportation problems faced by the farmers should be solved.
- Competent tools fabricators should be identified, in or around the project area.
- RUSEP should consider other aspects of agriculture, e.g., livestock and fish farms.

Group 1: Improving technology transfer to farmers

1. Adoption of technology

There are many technologies on shelf but getting the farmers to adopt them has proved a difficult task. Also the farmers' access to machinery is poor; there is not enough machinery and the few machines available are often in poor working condition.

2. List of target crops

The identified crops are yam, cassava, maize, and soybean.

3. Enhancing technology adoption

This could be achieved by improving technology delivery system by extension agents and effective on-farm adaptive research. An adequate number of qualified extension staff should be hired and functional mobility provided. NGOs should be involved in extension delivery. Farm inputs should be available on time and at affordable prices. Infrastructure (feeder roads, water, etc.) should be improved in the rural areas.

4. Sourcing for credit

The following institutions would be involved; OYSACC, commercial banks, NACRDB, community banks, cooperative societies, NGOs, community development associations and other microcredit institutions.

Conclusion

The group accepted that the project was good and could achieve good results if men, materials, and money were available and timely. The farmers pledged their full support to RUSEP.

Group 2: Linking farmers with end-users (markets, agroindustries) and microcredit sources

1. The group listed some agricultural products and agroindustrial concerns in Nigeria that use them.

Maize: feed millers, e.g., Pfizer, Lagos and Hope Industry, Ibadan; Breweries, e.g., NBL; baby food manufacturers, e.g., Cadbury and Nestlé Plc, Lagos.

Cassava: distillers, e.g., West African Distillers, Lagos; starch and glue manufacturers, e.g., Farbest-Asejire); bakeries, e.g., Efco, Ibadan.

Soybean: food processors, e.g., Nestlé, Cadbury; feed millers, e.g., Pfizer, Hope Industry.

2. Improving linkage between farmers and end-users

RUSEP should develop a directory of end-users of the main commodities and also of cooperative groups. The Federal Government is in the process of creating three commodity marketing companies. More information on these marketing companies should be made available to farmers

3. The role of NGOs in linking farmers with end-users and microfinance

NGOs should be involved in organizing farmers into groups on a commodity basis and also in the preparation of the above-mentioned directories. They should be involved in extension services delivery, linking farmers' groups with end-users as well as contract agreement preparation with users. Capable NGOs should be involved in microcredit administration, i.e., loan delivery and loan recovery.

Relevant NGOs should be involved in providing technical backup to farmers in production, marketing and micro credit administration.

4. Other microfinancing issues

Names of microfinancing institutions and bodies were listed; Oyo State Agricultural Credit Corporation; Nigerian Agricultural, Cooperative and Rural Development Bank; Community Banks, e.g., Abejoye community bank, Tede; NGOs, e.g., FADU, GASURD, CDF; Ford Foundation. To improve farmers' access to microfinance, farmers needed reorientation and a more informed attitude to credit. The process of loans delivery should be simplified. Civil servants and registered cooperative groups could be used as guarantors of loans.

Conclusion

The group concluded that the project was desirable and had a great potential for enhancing the income of farmers. It would also boost rural employment and growth, as well as impact greatly on other sectors of the economy.

Group 3: Institutional linkages and project financing

The group examined the concept, mode of presentation, methodology, and contribution of the project in general to the enhancement of life and progress of the communities. It was agreed that the project concept would work positively and that private and public institutions were to be fully involved in the activities of rural development. There would be some overlapping but the roles of the private and public sector participation should be defined to avoid conflict of interest.

The team also recognized the contributions of the three tiers of government, the local, state, and federal, in addition to community-based organizations and the international communities and their funding agencies. The group clearly examined the roles of the federal government through the PCU, the state government through the ADP, and the Office of the Chairmen of the LGAs, the participating communities, and other organizations working in the project area, then made various suggestions.

- The state government should deploy more qualified, experienced and dedicated personnel to enhance RUSEP.
- The state government should provide necessary logistic support for the staff engaged in RUSEP including incentives to motivate them.
- The state and the LGAs with the communities should provide an enabling environment, since a peaceful environment is crucial to the implementation of any project.
- The LGAs should rehabilitate and repair rural roads within the project area, provide potable water, and make primary healthcare a priority. Other necessary infrastructure for recreation such as community-viewing centers should be provided where this is not available.
- The state government should provide rural energy in the form of electricity.
- The private sector enterprises such as transporters and machinery fabricators should be encouraged to make their services available to participants at affordable charges.
- Farmers should be encouraged to minimize their risks in farming enterprises by insuring their farms.
- Communities should provide security for all facilities provided by the project.
- RUSEP should link farmers to reliable companies that would procure their produce to minimize the influence of middlemen who always shortchanged farmers.

Discussions, questions, and comments

Abia State report

Dr Okoro (Project Manager, Abia ADP, informed the meeting that he was a party to the report. Mrs Ajuonu, and the Rural Women Foundation said they were present at the meeting and so were a party to the report.

Comment: (NAERLS, Zaria) In opening up farmers to the market, the local government has a role to play as it controls marketing of produce within the LGA.

Response: RUSEP is already taking care of that. The local government Chairmen are Chairmen of Local Implementation Committees.

Adamawa State report

Comment: The ADP Chairman made the following correction: The Khadi was the Chairman of Farmers Association; Mubi should be deleted as a location; Union Bank and not Habib Bank. Dr Joshua referred to the Adamawa report: The opinion of the Permanent Secretary that RUSEP should write to the Government of Adamawa State to inform them about the choice of the location was important. Also, the farmers' seed requirement should also be determined

alongside fertilizers and chemicals. Feedback would be provided to all the four state governments and not just one.

Question: Can Adamawa State have prioritized intervention to guide implementation? Also from the reports, crops were the focus. Are there plans to include other commodities—animals, etc?

Answer: (Dr Ferris) There is a lot of production going on in Adamawa State. The crops in question are high value crops.

Comment: (Chairman) I do not think we can completely resolve this now. As the program goes along we may have windows of opportunities that may even incorporate other crops and animals regarded today as secondary. Comments by Dr Ferris are very important and we shall consider them.

Katsina State report

Comment: (Prof. Ogunforowa) There is a recommendation which talks about provision of special allocation of fertilizers. This keeps us within the fold of government bureaucracy which we want to run away from. Although immediately we can get allocation from government, we must fund a sustainable alternative.

Response: (Chairman) We do not want to overemphasize government involvement. We intend to seek private sector involvement and in fact we will collaborate with DAIMINA.

Response: (Ismaila Adamu) In Katsina we are as pragmatic as possible. Three agencies are involved in fertilizer business: federal, state, and local governments. We looked at the time and the closeness of the season. We think that only the federal and state governments can assist us at this stage. It was a pragmatic suggestion that the government should assist with fertilizer supply. In principle, we want to support and promote private sector involvement but to take off we want to use whatever is available publicly.

Nobody will provide traction for farmers. We will organize groups and introduce them to banks for procurement of animal traction materials. The problem with seeds is that of germination with Alheri and Premier Seeds. Premier claimed that they could render germination test training free for farmers.

Response: (Dr Joshua) Seeds lose germination after being kept for long particularly under bad storage conditions. Premier seeds are ready to provide the training but NSS could also do it.

Question: Mr Aderonmu (OYSADEP) What are the ADPs in Adamawa and Katsina doing to empower farmers to produce their own seeds?

Response: Seeds are sourced through farmers' supply company, Premier Seeds, and Alheri Seed. Outgrowers are also utilized to produce qualitative seeds. To provide qualitative seeds NSS and ADP members of staff go round to supervise the farms to avoid adulteration and remove the unwanted seeds.

About 11 000 t of fertilizers were sold to farmers across the state, through a committee formed by the state government. In addition about 2000 t of fertilizer have been supplied to large seed farmers.

Comment: (Alhaji Adamu, MD, KTARDA) Page 1 of the report: Branch Manager, not Managing Director Land preparation, Animal Traction Program. The state government through ADP provided loans to 625 beneficiaries through the state in 2001. In 2002, the state government has supplied ₦100m for the Animal Traction Program to be given as loan to farmers, interest free, payable in four years. Katsina Foundation NGO (*Gidanijer Jiker Katsina*) is also giving loans to farmers throughout the state.

Oyo State report

Comments: (Prof. Peter Oyekan) The attendance at the consultative meeting was impressive. Farmers were well represented. I was there and I saw it. The Project Manager mentioned that NARES attended just because I was in attendance. In the future, normal process of involving NARES should be taken. Management should be involved so as to get their commitment. It is also important to update the information on the agroindustries. Efco was using cassava in their biscuits but they no longer use it. Fabest has been sold out and the farm at Bacita no longer produces cassava.

Question: (Dr Ononiwu) Good quality seed is important to farmers and to RUSEP. I expected that solutions to high cost of seeds should have been derived at the consultative meeting rather than just bringing up the problem. Maybe Premier Seeds want to react to this.

Response: (Dr Joshua) In the whole of West Africa, seeds are cheapest in Nigeria. The benefits of seeds far outstretch the cost. Also seed companies are not making up to 15% profit margin. NSS is here and they can contribute. Premier Seeds has the capacity to handle a high percentage of seed required. On maize and rice, we can achieve 100%. On cowpea, we cannot commit ourselves. We are ready to collaborate with RUSEP and I assure you that we have current seeds and not old ones. We advise international agencies to run their trials on our field so we can jointly evaluate results. Oba Super I and II are old (15 years ago) but we have materials that are more recent than those two. Government seeds are always cheap but hardly available. Privatization helps us to attain standards and sustainability.

Comment: (Mr J. Shobowale) Most of the hybrid varieties are old, 15 years and above. When we talk of cost of seeds we must talk of quality. It was once said that, in Nigerian agriculture, different dogs bite you every day. Can RUSEP focus on mixed cropping and possibly incorporate livestock? We should also consider the issue of organic farming especially in an area where fertilizers always arrive late. RUSEP should also avoid relying on the government for sustainability. Ministers and other personalities change frequently. RUSEP should focus on farmers' groups and NGOs for success.

Response: (Chairman). We cannot do without government. The best thing to do is to establish a working partnership. This is the direction of the concept.

Question: (Prof. Ogunfowora). We have heard today that many technologies developed for farmers are not being used. In my own opinion, many of them are not adaptable. How does RUSEP intend to bridge this gap and take care of this problem? I recommend that RUSEP should develop a compendium of technologies on all mentioned.

Response: (NSS). Community seed programs are important. They open up the rural sector for the seed companies. The Katsina report informed us about RUSEP villages. We need to know other RUSEP sites so we can allocate our resources appropriately to meet emerging seed demand. Seed quality is an important issue. Seeds have to be certified and carry the certificate. They should have names of producers, addresses, and germination percentage. There are many unscrupulous seed agents in Nigeria. They even forge labels of reputable companies.

Question: (Dr Oyebanji). From the extension point of view, the major constraint to seed is supply and distribution. It terminates at state headquarters or local government headquarters in some cases. RUSEP sites are going to be located at ward levels. How do we get the distribution network to cover the wards?

Response: (Dr Amao). In Oyo State we solved the problem of seed distribution by appointing seed dealers or seed agents. We train them, monitor and supervise them. Already our seeds have gone out to them and by this we get our seeds to the farthest point in the state.

Other ADPs may adapt this scheme. I suspect that big seed companies may not have the distribution channels that may reach that far.

Response: (Dr Joshua). RUSEP has four pilot states and just a few villages. Premier will be able to meet the demand. Tell us where RUSEP will be and we will be there with them. We have blue print of how to move from public to private seeds. We need to move slowly toward stepwise privatization and finally end up with total privatization. We have to involve all parties in this discussion, particularly the farmers. Roles have to be allocated and we can move forward. Issue of seeds in rural area is simply an issue of transaction cost. It is not difficult to meet RUSEP demands in the four states.

Response: (Chairman). Dr Joshua, this is only RUSEP but I am coming with another program called special program on food security. It will be in all the states of the Federation. DAIMINA project has come at the right time.

Comment: (Dr Singh). We should all work together to update policy on seed in Nigeria. Our regulations must be well developed and enforced by the government. The important issue is if seed companies can supply at the village level.

Comment: (AIDU). We have talked on so many issues. They are all important but there is another important issue. Adding value is important for profit. In Abia State, like others, we noticed a lack of processing machines. I am aware there are competent fabricators in different parts of the country but they have problem of getting fabrication materials. This program should think of processing machines to transform the produce.

Comment: (Dr Manyong) I will talk about how the seeds could be linked to the RUSEP concept. Market is the main driving force for the adoption of improved technologies. RUSEP will not solve all the problems of agriculture but focus on commercialization. Product and distribution of seeds are important but market opportunities, potential, and timely availability of seeds are also important. Once we know all these, we will know what the stakeholders come to do to get appropriate linkages. I want to add that this phase is the pilot phase. We hope to get funding

for another phase. But we need to determine what we can accomplish within RUSEP to attain commercialization.

Comment: (Mrs J.P. Abdullahi) I think the quality control of the crops is important. With our experiences in the Fadama project, farmers lose as much as 30% in transportation between Kano and Lagos. We need to look at the quality of the crops before they are sold.

Comment: (Mr A.O. Quadri). We need to determine the requirement of end-users before we encourage production. We had a terrible experience sometime ago with soybean.

Comment: (Prof. Ogungbile). Yesterday, I asked if we had an inventory of technologies to use under RUSEP. The reports did not show these technologies. RUSEP should handle each crop and go down the line from production to marketing; determine what is required; value added, gender, etc. I am not sure farmer groups have been sufficiently empowered to access the market.

Comment: (Prof. Ogunfowora). I believe that we have to apply caution in our transition from public to private. Today, we have just a few seed companies. The ADPs are currently assisting and I think they are playing an important role. The transition program must be well managed. I think DAIMINA is well set to tackle some of the problems and we should collaborate with this organization. Production is well connected with marketing. As we focus on output there must be a corresponding attention given to production to the emerging market. From all the papers, there is no identified feedback mechanism. I think we should put one in place. When we put a program in place for farmers, how do we measure impact with the farmers?

Comment: (Mr R. Attipoe) For produce to be acceptable in Europe it must meet standards set by the European market. RUSEP should incorporate a scheme to prepare farmers for the standards of the European market which are coming into play in December 2003.

Comment: (Sammy Holdings, Ibadan). We know there are some waste materials such as woodwaste, sawdust, etc. There is a market in Europe for some of these waste products. Will RUSEP look into this?

Comment: (Mr Bello, Guinness Nig Plc). Giving consideration to end users' requirements is really important. We operate under license and we have strict requirements.

Comment: (L. Viddel). We just concluded a workshop in Abuja. We have to understand who are the key players. We must work together. The first key player is the farmer. The second is the federal government (who is there to encourage all sectors). The banks have to find a way to provide money under better conditions. State governments should provide infrastructural facilities. The private sector is to give services including credit. We do not want to sit again in five years time to talk about the same thing. We can start with the market. What are we producing and for whom? Nigeria has dynamic people and highly knowledgeable individuals who, sad to say, hardly ever come together. Microcredit is a service time issue. Under current conditions, farmers are provided with money only sufficient to reach Ilorin but are asked to go as far as Abuja.

Comment: (Mr Oyeleye, Journalist, Guardian Newspapers, Lagos). We should talk about population. Farmers are aging and their population is dwindling. When the old people go, who replaces them?

General response: (Dr Kormawa). There have been many comments. We appreciate all the comments. We had anticipated a lively contribution and set aside a good time for it. RUSEP cannot make roads or provide credit. That is why we are talking about private–public partnership. In the session to follow we expect that we will all use our expertise to develop useful programs for RUSEP as we meet in groups. We have developed the terms of reference for the three groups being formed.

Syndicate groups: presentations and recommendations

Terms of reference for syndicate groups' discussions

Group I: Market development and market information systems

1. Suggest efficient mechanisms and structure(s) for linking farmers' groups with agroindustries.
2. Identify the strengths and weaknesses of the identified mechanism and structure(s).
3. Make recommendations on market information needs and how they can be effectively obtained and disseminated at the local/state/national levels.
4. Outline a plan to develop a sustainable market information system (including funding mechanism) for small-scale farmers, traders, and other entrepreneurs.

Group II: Microfinance and institutional linkages

1. Develop a strategy or strategies for the provision of credit and extension services for RUSEP activities.
2. Identify linkage mechanisms (how) and institutions (which, what capacity and strengths) to enhance RUSEP implementation.
3. Develop an implementation plan for linking input dealers and output markets with farmers' groups including monitoring and evaluating activities and roles of stakeholders (input dealers, output markets, NGOs, etc.).
4. Propose a sustainable funding mechanism for RUSEP at state and local government levels.

Group III: Technology transfer and training

1. Identify stakeholders and type of training needs.
2. Recommend sources of training expertise/resources for the training.
3. Outline a plan to develop a sustainable technology transfer system (including funding) to support commercialization of agriculture

Organization

- Group 1: Facilitator: Mr S.A. Bello
Technical Adviser: Dr S. Ferris
- Group 2: Facilitator: Dr O. Oyebanji
Technical Adviser: Dr John Flynn
- Group 3: Facilitator: Mr O.J. Shobowale
Technical Adviser: Dr A. Joshua

Syndicate groups' reports and recommendations

Group 1: Market opportunities/information

Status market linkage is currently weak (local, regional, export).

Question: What are the steps needed to identify market opportunities and then link farmers / farmers' cooperatives to these markets?

Step 1: Group commodities for market studies.

Group 1	Group 2	Group 3	Group 4	Group 5
Grains	Roots and tubers	Oil crops	Fruits/Horticulture	Fiber
Rice, maize, sorghum	Yam, cassava	Groundnut, soybean	Plantain	Cotton

Step 2: Demand study. Who is buying? Review sectors, food, feed, nonfood. What products are they buying, at what price and volume?

Step 3: Supply chain study. Costs and prices along the market chain from the farm gate, rural market, assembly market, to wholesale market.

Step 4: Farmers' groups.

1. Need to form collective marketing organizations; this can be done with support from NGOs /RUSEP/ADPs.
2. Need to find ways of improving supply chain efficiency, i.e., reduce the number of transactions in the supply chain, by avoiding unnecessary levels of traders, if any.

	Strengths	Weaknesses	Intervention
Farmers' groups	Gain from economies of scale for purchase of inputs, access to credit, and aggregation of commodity for sale, transport, storage, etc. Group can support members in terms of information flow, short-term finance? Peer pressure instils greater sense of responsibility for financial dealings. Groups can gain from increased income due to bulk sales of graded produce.	Inability to reach consensus on price, lack of discipline. Lack skills in identifying market opportunities. Lack of access to market information. Inadequate managerial skills, inability to develop business plans. Can be corrupted through political interference.	Group training in collective marketing
Traders (Middlemen)	Have liquidity. Are risk takers. Well-informed. Quick to take decisions. Well-organized.	Exploitative. More interested in profit than quality. Only loyal to money.	Improve supply chain linkages between farmers' groups and markets.
Service suppliers NGOs, ADPs RUSEP	Access to information. Staff widely distributed at grassroots. Access to technologies. Have funds for support.	Lack of enough commitment. Lack of experience with market orientation. Lack of business orientation and linkage to private sector.	Need training in market analysis to assist farmers' groups Need technical support to develop MIS
Large-scale commercial farmers	Enjoy economies of scale. Have ability to aggregate produce. Use new technologies. Can produce uniform products. Quality is better than from small-scale producers.	May not be large enough for industrial supply. Highly challenged by socio-political environment. Suffer from lack of security.	

Market information needs.

Topic	Information available or needed
Existing market information availability	Since 1975, ADPs have been collecting market prices on a fortnightly basis. Information is held with ADPs and sent to banks. ADPs have Internet connection and this holds time series of data. There is a private-sector market information service for export crops; this can be accessed via phone, fax, and email.
Number of commodities	
Frequency	(Daily, weekly).
Data	Price, volume
No. and types of markets	Information collected from primary markets, wholesale markets, large traders, and large companies.
Sites of markets	Dependent on funds and RUSEP sites.
No. of staff and roles	
Means of dissemination	Email, fax, and radio.
Costs	
Funding sources	Private sector subscription, radio sponsors, local government.

Plan for MIS

1. Use existing mechanisms, such as ADPs.
2. Develop more rapid methods of data analysis and preparation, (weekly).
3. Find mechanisms for dissemination via newspapers, email, fax, phone, radio, TV.
4. Funding via sponsors, subscriptions, local government.
5. Contact with end-users via listeners' groups.

Group 2: Microfinance and institutional linkages

1. Develop a strategy/strategies for the provision of credit and technical services for RUSEP activities. The group was able to identify the existence of the following financial institutions in the pilot states: commercial banks (Union Bank, Bank of the North), community banks, cooperative bank (NACRDB), NGOs, e.g., FADU. These have been providing credit to farmers either as individuals or in groups. The community banks and NGOs such as FADU had better outreach to the grassroots than the commercial banks. For ease of credit sourcing: (i) farmers must be organized into viable commodity-based groups (ii) credit provision should be targeted to commodities that have assured markets.

On technical services, if the RUSEP program is designed through contract farming model—organizing farmers to feed specific markets—this will facilitate provision of technical services and credit administration. Some institutions that have comparative advantages in providing certain services to farmers were identified.

- Farmer education (extension service)—ADPs.
- Market information service—ADPs.

- Group mobilization and formation—NGOs.
- Training in group management, credit sourcing and administration, farm management, produce marketing, etc.—NGOs and end-users (processors).
- Subject matter training—input dealers, ADP research, NSS.

2: In order to evolve an effective linkage among the stakeholders in the project areas, we recommend setting up a local implementation committee involving all stakeholders that would enhance RUSEP implementation. These stakeholders would include ADPs, input dealers, farmers marketers community leaders, end-users (processors), RUSEP desk officer, PCU, NSS and AIDU (for fabrication) and research institutes, NGOs, and credit institutions. The stakeholders should be prepared to fund their implementation meetings at this stage (at least quarterly). The issues to be discussed should revolve around RUSEP activities within the project areas in terms of production, input requirements marketing information, market outlets and possibly premium prices to stimulate production.

3: The group believed that through this implementation committee, it would be easier to link input dealers and output markets with farmers groups. Monitoring and evaluation of all activities would be facilitated. The group noted that in the RUSEP pilot states, the ADPs have taken inventory of alternative service providers existing in these states. The group recommended that these alternative service providers should be evaluated to identify those that are relevant to RUSEP activities and then used. It is also necessary to determine the type of support that can be provided to these alternative service providers in order to strengthen the technical service they could provide to farmers in the project areas.

4: On sustainability, the group is of the opinion that since the RUSEP concept is to develop a commercial system, the project should be self-financing. Since RUSEP is organizing the farmers, the project should be able to impose levies along commodity lines to form what is called a Commodity Fund. This fund should be kept in the bank and managed by the local implementation committee to sustain the activities developed through RUSEP intervention. The end-users should also be made to contribute to support the program by entering into a Memorandum of Understanding with farmers in terms of produce levy and provision of technical services (training) free of charge.

Group 3: Technology transfer and training

1: Identify stakeholders and type of training

The group considered the 18-month period slated for the pilot phase of the project and was of the opinion that only the crop subsector should be covered to ensure the achievement of visible impact within the period. Thereafter other subsectors would be incorporated. Guided by this thinking, the following stakeholders were identified.

- Small-scale crop production farmers.
- Agricultural input marketers (seeds/seedlings, fertilizers and agrochemicals) also service providers involved in the areas of tractor hiring and animal traction.

- Agricultural produce processors (primary, farmgate level; secondary, peri-urban, urban levels).
- Fabricators.
- Support services (service providers). These include transporters, produce bulkers, and storage holders.
- Produce procurement operators.
- Extension work providers (comprising both public and private sectors).
- Research and development.
- Quality standard and control outfits (NAFDAC, NSS, and Standards Organization of Nigeria).
- The policy makers such as federal, state and local government as well as the autonomous communities of the project areas.
- The mass media (electronic and print).
- Market women .
- Credit providers (i.e., Central Bank, commercial banks, community banks, and others).

Type of training

The group carefully reviewed the training proposals as per the three major types of training provided in the draft document with a view to making additions where there was a shortfall or removing any that are considered irrelevant. At the end of the exercise, the following training proposals were agreed under the heading of human capital development. Farmers, producers and cottage processors, participating farmers/farmers' groups should be trained in the following areas.

- Business enterprise management.
- Operation, maintenance, and other technology management practices.
- Primary processing steps for various products.
- Packaging techniques handling and transportation.
- Book-keeping and rudimentary management accounting.
- Registration procedure with Standards Organization of Nigeria.
- Acquisition of loans and enterprise establishments.
- Criteria for processing machine selection and acquisition to ensure quality and availability.
- Organization of study tours/visits (local and international).
- Quality and standard control training.

The group agreed on the training areas for input suppliers, involving importers, distributors, and retailers of fertilizers and agrochemicals; producers and marketers of breeder/foundation/certified seed, contract producers, etc., through seminars to sensitize them on RUSEP and the requirements of inputs by agroecological environments in Nigeria. The group agreed that the extension agents and other ADP staff should be trained in the following areas.

- Management of extension services.
- Training methods and presentation skills.
- Basic computer application.
- Technical report writing.

- Small and medium-scale entrepreneurial development skills.
- Women leadership, organization, and management in groups.
- Management and organization of groups and cooperatives induction.
- Script writing and presentation skills through the electronic media.
- Effective extension supervision methods.
- Communication techniques in extension.
- Collective marketing and contractual arrangements.
- Organisation of study tours/visits.
- Monitoring and evaluation training techniques.
- Information on institutional organizations (e.g., NAFDAC, SON) taxes, tariffs, duties, health environmental laws, requirements, for establishing processing industries.

The group considered and came up with a total of nine sources of training enterprises. These are as follows: NARIS, and CGIAR, IITA, etc., NGOs (viable, relevant for RUSEP) the NGOs will include Technoserve, FADU, Share Foundation, SG 2000, ARMTI, PCU, ADPs, AIDU, NSS, seed producing companies, fertilizer and agrochemical companies, and expertise from the West African subregion. It was also agreed that the human resources for training would be drawn from the enumerated institutions.

2: Outline a plan to develop a sustainable technology transfer system (including funding mechanism, institutional participation) for the projects.

In the area of sustainable technology transfer mechanism (TTM) the group noted the past TTM, which includes demonstration (T and V system and Research Extension Farmer Input Linkages, REFILs). The group observed the availability of production technologies and processing technologies that could be market driven. The group, however, observed the need to enhance the current REFILs by involvement of the following institutions and individuals.

- NGOs.
- Private organizations and commodity groups.
- Input supply agencies (public and private).
- Linkages to ongoing projects such as the national *fadama* facility (NFF), the special project for food security (SPFS), and DAIMINA.
- Extension workers (public and private).

The commitment of government was also needed to ensure effective coordinating institutional support and collaboration in the process of market-driven technology transfer. The group observed that adequate regular and timely funding was critical for effective, sustainable technology transfer. It was recommended that the major stakeholders (USAID, federal, state and local governments as well as private companies and organizations) should provide the financial requirements for the projects. The group hereby expressed its gratitude for the opportunity given to serve in the development of this very important project.

Launching of the Rural Sector Enhancement Program

A market-led agricultural technology transfer and commercialization project

Dr Patrick Kormawa

RUSEP Project Coordinator, IITA, Ibadan

Your Excellency, Honorable Minister of State for Agriculture and Rural Development, Dr (Chief) Chris Agbobu; the Governor of Oyo State, represented by the Commissioner for Agriculture; the Governor of Adamawa State, represented by the Commissioner for Agriculture; the Director General, IITA, Dr Peter Hartmann; Representatives of USAID, Dr Ravi Aulakh and Alhaji Abdulkadir Gudugi; the Director, Agriculture, WINROCK International, Dr John Flynn; Permanent Secretaries; Directors of other agricultural research institutes; Dr Kandeh Yumkellah, UNIDO Representative to Nigeria and Director, West and Central Africa Industrial Development Center; Dr S.A. Ingawa, Head of PCU and Chairman of Technical Committee, RUSEP; scientists, ladies, and gentlemen.

I am pleased to present an overview of the RUSEP project and action plan of the 2-day stakeholders' workshop. The Honorable Minister may recall that, on 4 April 2001, the Director General, IITA, notified the Honorable Minister that the United States Agency for International Development (USAID) had provided a grant to IITA to implement a pilot project in four states in Nigeria for a period of 20 months. Consequently, the Federal Ministry of Agriculture and Rural Development (FMARD) appointed the Projects Co-ordinating Unit (PCU) as the implementing partner of the project. Since then, the PCU has worked very closely with IITA in developing the project concept and activities.

Honorable Minister, ladies and gentlemen, it is worthy to note that Nigeria has the largest domestic market in sub-Saharan Africa and accounts for 40% of the West African regional market. The existence of such a large market encourages exploitation of economies of scale and specialization in production among the different agroecological zones present within the country. However, the majority of farmers in Nigeria are small-scale landholders. Therefore, the need to increase trade and investment in the agricultural sector by strengthening the role of rural farmers, increase private sector participation, and harmonize strategic regulations among institutions in the country and nations in the West African subregion has become a matter of urgency. In addition, the emergent forces of globalization and trade liberalization present a new challenge to Nigeria. This requires developing a market-oriented agricultural sector with the aim of enhancing the capacity of smallholder farmers to respond to opportunities in domestic and regional markets in a progressively changing economy.

The RUSEP project differs from the conventional extension service approach of conducting experiments on-farm and expecting farmers to adopt and adapt improved technologies. RUSEP offers appropriate technology options with already identified market opportunities. These will be complemented with other support service initiatives such as the facilitation of access to seed,

fertilizers, credit, processing, and market information systems. In order to achieve this, innovative partnerships with relevant programs and projects are required. RUSEP will develop such linkages and partnerships through close collaboration with state and federal policymakers in Nigeria. In so doing, the RUSEP project also seeks to influence and nourish the emergence of an enabling policy environment that would eventually make the Nigerian agricultural sector competitive. At present, the pilot project is implemented in Abia, Adamawa, Katsina, and Oyo States. In each of these states, prioritized programs and activities have been identified following detailed needs assessment and market sector analysis. The project has begun to link farmers and farmers' groups with identified markets. It is envisaged that by the end of 2002 about 7000 farmers will benefit from the project with a projected increase in their farm incomes of 20–35%, all this resulting from the use of improved technologies, training, and improved market access.

Honorable Minister, ladies and gentlemen, let me inform you that the project will eventually expand to other states. However, this is subject to the level of success that will be achieved in the implementation of the project in the pilot states, as well as commitments and support from requesting states.

Implementation strategy

The implementation of RUSEP involves a unique partnership, bringing together the International Institute of Tropical Agriculture (IITA), Winrock International, the Federal Ministry of Agriculture and Rural Development (through the PCU) local government officials, credit institutions, agribusiness firms, nongovernmental organizations (NGOs), and farmers. The project's implementation strategy has been consultative and participatory with all stakeholders in all phases of the project at all stages from the farm to the national level. This practical approach in project planning has been found to be very effective in bringing along all stakeholders to identify priority areas for intervention.

Why did we organize the workshop?

Developing a market-led agricultural technology transfer and commercialization is a new approach and as such poses a challenge to all of us. It is a challenge because market development in the parlance of technology transfer is a novelty in Nigeria and this has been made clear during our deliberations over the last two days. Most projects that have been implemented have focused on increasing productivity with no support for developing the market sector.

As part of the project identification and appraisal activity, a detailed study to assess agricultural technology needs, market opportunity and institutional arrangements were carried out in November 2001. Following this study, state-level consultative meetings were held in each of the four states, with the view to validating the reports and providing a basis for a broad-based acceptance of the reports. Outputs from these consultations provided inputs to the stakeholders' workshop.

In furtherance of the goal of RUSEP, the workshop brought together a number of experts from Nigeria, Ghana, Uganda, and the USA in order to share experiences and build consensus on priorities and actions to be taken to develop a market-led agricultural technology transfer and commercialization. The workshop was attended by 150 stakeholders—policy makers, donors, private sector participants, bankers, representatives from research institutes, universities, extension

agencies, and NGOs, farmers' representatives, and consumers. We sincerely thank USAID for providing funds for the workshop. The stakeholders' workshop had the following objectives.

- Share experiences on successful production-to-market linkage projects.
- Develop an action plan for linking farmers with markets in Nigeria.
- Develop a sustainable plan and strategy for technology transfer and training.
- Develop a sustainable market information system (MIS).
- Identify a multilevel funding mechanism for RUSEP.

During the last two days, our experts have also helped to develop a formidable strategy for the implementation of RUSEP in Nigeria. From the deliberations, the experts strongly lauded the RUSEP concept and endorsed the principle that the concept can be implemented in Nigeria and would contribute to enhance employment and income generation among farmers, and other agro-entrepreneurs. Specific recommendations were made as follows.

- Enhanced market development in Nigeria should be accomplished through the implementation of MIS to provide information to and linkage between all stakeholders in the marketing chain.
- For improved microfinance and technical service delivery system, as well as institutional linkages to promote market development, it was recommended that farmers must be organized into viable commodity-based groups to enhance credit delivery. Also credit provision must be targeted to commodities that have assured markets.
- Appropriate technology transfer systems and training needs were identified for various stakeholders to support the commercialization of agriculture in Nigeria.
- Sustainable funding mechanisms for the project were recommended. This should involve bilateral, public and private sector funding.

Honorable Minister, ladies and gentlemen, from the two days of deliberations we conclude that a strong public and private sector partnership is vital for the commercialization of agriculture in Nigeria. The public sector should continue to provide technical services while the private sector should provide agricultural inputs. In the area of market development, both sectors have significant roles to play and thus should work in partnership. We hope that government will continue to provide an enabling environment through consistent and workable policies that will encourage investment and growth in the agricultural sector. This, we believe is the basis for commercializing agriculture.

Finally it is necessary to point out that the initial funding provided by the USAID will not be sufficient to effectively and efficiently implement all the prioritized programs and activities. Thus additional funding would be required from all levels of government. This will enable us to expand the project to other states in Nigeria as well as to accelerate the achievement of the intended benefits of the project. At the end of today, all partners now need to roll up their sleeves and contribute to the delivery of the outputs promised. No more talk but action!

Goodwill message from His Excellency, the Executive Governor of Oyo State

Alhaji Lamidi Adesina

Delivered by Chief Pekun Adesokan, Commissioner for Agriculture, Oyo State

The Honorable Minister of Agriculture and Rural Development, Mallam Adamu Bello; The Deputy Governor of Oyo State; the Secretary to the State Government of Oyo State; Members of the Oyo State Executive Councils; Official of the United States Agency for International Development (USAID); the Director General of IITA; Heads of institutions here present; Chairmen of boards, commissions and parastatals at both federal and state levels; Permanent Secretaries of both federal and state ministries here present; Heads of departments (IITA); federal and state Directors, Program/Project/General Managers; distinguished guests; gentlemen of the Press; ladies and gentlemen.

It is with great delight that I come here to give a goodwill address at the formal launching of the Rural Sector Enhancement Program (RUSEP). The address is particularly in acknowledgement of the favor done to Oyo State by selecting it as one of the states for the pilot phase of the laudable program.

There is no gainsaying that the economy of Nigeria is basically rural and hence agrarian. Available data confirm that about 70% of Nigerians are in the rural areas and are predominantly poor farmers, with about 48% at a level of extreme poverty. This undesirable level of poverty among our farmers who form a significant percentage of our population is due to many reasons. Prominent among these is inefficient marketing arrangement for their farm produce, essentially primary products. Such parameters of inefficiency include poor access to inputs, venture capital, market information, and agroprocessing facilities. These all culminate in very low adoption of new technologies at the level of individual farmers and, hence, a slow pace of development in the rural agricultural sector in general. Available evidence abounds that it is not much of a problem to stimulate production but the problem is sustainability of a high production rate at a level that continues to benefit farmers and which can keep farm income at parity with incomes in other sectors. The most recent of such experiences in Oyo State is the Back-to-Land Program implemented in 1997. I am made to understand that RUSEP is designed to address those grey areas to make the crossing over to the desired level through market-driven technology transfer.

It is gratifying that Oyo State is among the four states in the country selected for the pilot phase. At this point, I wish to express the profound gratitude and appreciation of the good people of Oyo State to USAID, the financier of RUSEP. A poor population is definitely a hungry, angry, and a potentially unorganized population where democracy cannot thrive, and where peace, stability, and development are elusive. The efforts of USAID to assist Nigeria in general and Oyo State in particular to surmount this trying period of our democratic up will

go down into records. Of no less importance in the acknowledgement list is IITA. The collaboration and intimacy Oyo State enjoys with IITA are immeasurable. Last but not the least is the PCU that has provided the necessary information to put Oyo State in the forefront for the enjoyment of RUSEP.

I want to reiterate that this program is aimed at lifting the status of agriculture from a way of life to a commercial venture. It is noted that you have conducted a benchmark survey to determine the situation of the farmers before intervention and the level they will be after intervention. The result should equally be assessed to determine the impact of the program. I have also observed that ADP has been made the implementing agent; this is a good arrangement. I wish to recommend, however, that there should be a State Technical Committee for RUSEP as there is for the Food Security Program.

I want to assure USAID, IITA, and PCU that the Oyo State government will leave no stone unturned to make good use of this kind gesture.

I thank you all and God bless.

Goodwill message from His Excellency, the Executive Governor of Katsina State

Alhaji Umar Musa Yar' Adua

Delivered by Alhaji Ibrahim Adamu S.K. (Managing Director, KTARDA)

The Honorable Minister of State,
Federal Minister of Agriculture and Rural Development

The Executive Governor, Oyo State, fully represented by the Honorable Commissioner of Agriculture and Rural Development. All protocols observed. It gives me great honor and pleasure to be in your midst today at this important occasion, the formal launching and consultative meeting on RUSEP.

As we are all aware, the Federal Government of Nigeria and USAID had concluded discussions on this program some time in April 2001. The aim was to test a strategy to improve and develop market-driven agricultural production and to generate employment through the enhancement or creation of rural agricultural enterprises in designated areas of Nigeria. This is a laudable program especially for this administration that is looking at all avenues to create employment opportunities for our youths and to alleviate poverty. I must at this juncture express my gratitude and that of the entire people of Katsina State for being one of the four states selected for the implementation of the pilot phase of the program, which is expected to last 20 months. I assure you that Katsina State will do everything possible towards the successful implementation of the program.

The selection of Katsina State in this program is a great challenge to our rural farmers and the state in general. This is one of the rare occasions where history repeats itself. As some of us are aware, former Funtua ADP in Katsina State was among the three enclave ADPs where agricultural development projects were first tested. The enormous success of this project led to the adoption of the ADP system in all the states of the federation. Sokoto and Katsina States were also pioneers of Agricultural and Community Development Project through IFAD assistance; again a tremendous success was recorded in Katsina State during the nine years that the program was implemented. This led to a request by the Federal Government to replicate it in more states of the federation under the Community-Based Agricultural Development Program. In this new program, eight states were selected and Katsina State was one of them. In addition, the Program Support Office for the IFAD project is now sited in Katsina. The state government has already awarded a contract for renovation and developing the PSO office to international standard.

I hope the Rural Sector Enhancement Program will have the same success story after the expiration of the 20 months pilot phase, and it is my belief that you will equally choose Katsina State in the second phase where more states will be incorporated. I assure you of the full commitment of my administration towards the success of this laudable program.

I would like to seize this opportunity to highlight some of the agricultural programs in the states aimed at providing more income and raising the standard of living of the rural farmers in Katsina State. In 2001, 625 farmers benefited from Animal Traction Loan Scheme, which is interest-free and repayable in four years. The aim of the scheme is to reduce the use of manual labor in farm operations, thereby increasing the areas cultivated by our farmers and raising their income.

This program is revolving and more funds are provided for its continuation this year. Secondly, the state government has embarked upon the development and rehabilitation of cotton, vegetables, and sugarcane with the aim of providing farmers with enough inputs and improved seeds for further multiplication to increase their production and income. In this program, over 300 farmers are participating in the production of high quality seeds, which are being purchased by government for dressing, packaging, and sale to farmers at subsidized prices. I hope RUSEP will also include groundnut and cotton in its project in the state to complement our efforts in both crops. These and many programs are already started while some are on course.

With these few remarks once again, I thank you very much for the selection of Katsina State among the four selected for the pilot phase of the program. I wish you happy and successful take-off.

Thank you and may Almighty Allah bless us. Amen.

Goodwill message from His Excellency, Dr Orji Uzor Kalu (MON), the Executive Governor of Abia State on the formal launching of RUSEP

Delivered on his behalf by Dr Emelike Okoro
Project Manager, Abia State ADP

It gives me a great pleasure to send you this goodwill message, on the occasion of the formal launching of RUSEP. I am also quite delighted that Abia State has been selected as one of the states for the implementation of the pilot phase of this program. As you know, our country Nigeria has been engaged for many years now in developing the rural sector. This is what is expected because a sympathetic democratic administration should show empathy for the development of the greater number of its people. For us in this country, most of our people live and derive their livelihood from the rural environment. Any efforts geared towards the enhancement of the fortunes of the rural environment, any efforts geared towards the enhancement of the fortunes of the rural people will translate into a greater generation of national wealth. Our wealth is our people. A number of challenges face us in this task especially in the agricultural sector.

- Poor physical infrastructure.
- Weak institutional capacity
- Widening technology gap.
- Inadequate regulatory system.

The smallholder farmers of this country are responsible for over 90% of the total agricultural output while it follows that the rural sector produces about 95% of Nigerian food crops. Is everything all right in this sector? Of course not! The rural sector itself is characterized by inefficient use of resources, poor capital base, inefficient marketing, etc., all of which have contributed to low output and the resultant food insecurity and poor standard of living of the people. The persistence of poverty and the potential of even greater marginalization of the rural population pose a potential political danger and concern for all of us.

The intervention of projects such as RUSEP will advance the cause of the rural majority. We are hopeful that the market-driven approach of RUSEP that will be tested at the small-scale level during this pilot phase will demonstrate its efficacy and appropriateness.

In spite of the current climate of scarce finances, the Abia State government is committed to its agricultural development thrust. The small farmers of Abia will continue to receive our support through our firm commitment to the State Ministry of Agriculture and the State ADP. I am proud of our achievements so far and believe that with increased availability of resources, our ADPs will break new grounds and satisfy new hopes and aspirations.

I wish you well as you launch RUSEP under the capable chairmanship of the Honorable Minister of Agriculture and Rural Development, Mallam Adamu Bello, FCIB (Dan-iyam Adamawa).

Speech of the Honorable Minister of Agriculture and Rural Development, Mallam Adamu Bello, FCIB (Dan-iyam Adamawa) on the occasion of the formal launching ceremony of the Rural Sector Enhancement Program (RUSEP) held at IITA, Ibadan, 15 March 2002

**Delivered on his behalf by His Excellency
the Honorable Minister of State for Agriculture, Chief Chris Agbobu**

Your Excellency, the Executive Governor of Abia State, Chief Orji Uzor Kalu
Your Excellency, the Executive Governor of Adamawa State, Mr Boni Haruna
Your Excellency, the Executive Governor of Katsina State, Alhaji Umaru Musa Yar-Adua
Your Excellency, the Executive Governor of Oyo State, Alhaji Lam Adesina
Your Excellency, the US Ambassador to Nigeria, Mr Howard Jetter
The Special Adviser to Mr President on Food Security, Prof. Ango Abdullahi
The Director General, IITA, Dr Peter Hartman
Honorable Commissioners, State Ministries of Agriculture
The Acting Mission Director for USAID–Nigeria
The Chief Technical Officer, USAID–Nigeria, Dr Ravi Aulakh
The Head of Unit, Projects Coordinating Unit, Dr S.A. Ingawa
The Directors, Federal Ministry of Agriculture and Rural Development
The Representative of WINROCK International, Mr Niels Hanssens
Distinguished invited participants
Members of the Press
Ladies and gentlemen,

Your Excellencies, distinguished invited guests, ladies and gentlemen, permit me to begin this address by expressing my profound gratitude to the organizers of this launching ceremony, for inviting me to formally launch the Rural Sector Enhancement today, Friday, 15 March 2002. With due humility, I consider this duty a great honor and, of course, a pleasant one. Within a period of 45 days this is the third time I am being called upon to play the role I am currently assigned to carry out in programs that are being funded by USAID. In the first instance, I was opportuned to perform the opening ceremony of the Agricultural Commodity Summit on 22 January 2002 at Abuja. Secondly, I was privileged to formally launch the DAIMINA program on 24 January 2002 at Abuja. Thirdly, I am currently being asked to perform the formal launching of yet another important USAID-sponsored program—the Rural Sector Enhancement Program—in a venue outside Abuja, here in Ibadan, the historic capital city of Oyo State. The selection of this venue by the organizers was perhaps intended to test my level of devotion to work outside Abuja.

Ladies and gentlemen, let me at this point observe that the three programs mentioned above have expressed some degree of commonality in terms of their basic objectives, particularly with respect to sector policy, institutional reforms, poverty alleviation, private sector involvement in

agriculture, rural microfinance, commercialization of inputs markets, and marketing of agricultural products. Here, I must mention here that these are lofty objectives which essentially represent a shift in paradigm from our past efforts on keeping agriculture in the domain of the public sector. In particular, I consider the involvement of the private sector a necessary ingredient for sustainable and long-term growth and development of agriculture in Nigeria.

On this count, let me pledge the commitment of my ministry and the government of Chief Olusegun Obasanjo to these new and noble initiatives. I am also to extend the appreciation of the Federal Government of Nigeria to the government and people of the United States for their invaluable support to the Nigerian agricultural sector. It is my hope that these relationships will continue to wax stronger.

While I am not oblivious of my role as the “Chief Launcher” on this occasion, may I seize this opportunity to congratulate the State Executive Governors of Abia, Adamawa, Katsina and Oyo, whose states were selected as pilot sites for the implementation of the program. Your Excellencies, having you as Governors from basically agrarian states and the tremendous support you have been providing to the Agricultural Development Programs (ADPs), I am confident that the cooperation expected of your administration to make this program a huge success will readily come into play. It may be appropriate at this juncture, to request the intervention of your Excellencies in getting the full cooperation of the local government councils, community leaders and farmers’ groups selected in your respective States for the implementation of this program. Of course, it is expected that my counterparts at state level, the Honorable Commissioners will find it exciting to backstop your Excellencies in this endeavor.

It is pertinent to stress here that the roles of the four ADPs in the states selected, are pivotal to the successful implementation of RUSEP. Your roles as spelt in the program document are explicit. Among others, these roles include mobilization and formation of enterprise groups (farmers, inputs suppliers, processors, marketers, etc.), delivery of extension messages/information to relevant stakeholders, and coordination of the program at state level. I am sure your experiences in the implementation of past programs/projects will match the tasks assigned to you.

Ladies and gentlemen, the Rural Sector Enhancement Program that focuses on market-driven technology transfer and commercialization (MDTTC) stands to succeed. This is because considerable effort has been committed in undertaking some preliminary field activities, even before the formal launching of the program. This is a clear demonstration of the enthusiasm and devotion of the Technical Management Committee of RUSEP, which is made up of the PCU (of my Ministry), IITA, and WINROCK International. For the purpose of clarity, let me mention a few of these activities.

- All equipment and facilities needed for the smooth implementation of the program in the states have been procured.
- Needs assessment studies have been conducted in all the four states. Identification of sites, constraints to field activities with particular reference to policy and institutional framework, research and development, inputs supply, production, storage, processing,

marketing, credit support, farmer organization, human capital development, effective monitoring and evaluation have been well articulated in the study reports.

Equally, a comprehensive intervention framework to address the above constraints is well covered in the studies.

- State-level consultative meetings have been held in the four states to get comments of relevant stakeholders about the reports of the needs assessment studies. Here at IITA, a workshop on the needs assessment studies has been conducted during the last two days with experts and relevant stakeholders to further deliberate on the findings of the studies.

I am anticipating that the outcome of the workshop and some of the issues being raised here and now will set the pace for the field implementation of the pilot phase of the program in this year's rainy season and provide the basis for the preparation of a more comprehensive market-driven technology transfer and commercialization program in the country. At this point, it may be appropriate to raise a few areas of concern that may serve as inputs in the preparation of the second phase of the program.

- In preparing the new program, cognisance should be taken of the country's geopolitical arrangement to ensure that all states of the federation participate in the program.
- For the purpose of proper coordination and to avoid duplication of efforts along with proliferation of different agencies, a mechanism should be put in place to harmonize all USAID programs in Nigeria.
- At the period of program preparation, it is also important to hold thorough consultations with relevant officials of the federal, state, and local governments with a view to getting their assurances on support for the program and assigning responsibilities to each tier of government. In this respect, a detailed financing plan defining the type and manner of contribution for each of the tiers of government and where necessary the target beneficiary communities—farmers—should be clearly articulated.
- While we appreciate the use of consultants in the conduct of some project activities, it may be technically expedient to explore the engagement of local experts in both the public and private sector to work hand in hand with the international experts in the conduct of such activities. Besides being more familiar with the terrain, local experts have the advantage of knowing better the institutional—operational frameworks on the ground. The government of Nigeria would be appreciative of any gesture aimed at enhancing the capacity of its local experts.

Your Excellencies, distinguished invited guests, my dear participants, ladies and gentlemen, accept my apologies for my engagement with all the above details. As I said earlier, I am very conscious of my role as the “Chief Launcher” on this important occasion. Having said that, it is my privileged honor to formally launch the Rural Sector Enhancement Program.

Thank you and God bless.

Annexes

1: Workshop program

Tuesday, 12 March 2002

14.00–18.00 Arrival of participants/registration at I-House, IITA

A: Technical sessions

Wednesday, 13 March

Opening session

Chairperson: Dyno Keatinge, Director, RCMD, IITA

Rapporteur: Chuma Ezedinma, IITA

- 9.00–10.00am Welcome address (Bob Booth, Deputy Director General, IITA)
 Introduction of participants
 Overview of workshop and expected outputs
 (Patrick Kormawa, IITA)
 Market-driven technology transfer and commercialization of agriculture
 (Prof. Bisi Ogunfowora)
 Setting the scene: introductory remarks
 (Abdulkadir Gudugi, USAID)
- 10.00–10.15 Tea/coffee break
- 10.15–10.35 Agroindustry experiences from Ghana
 (Tony Mensah, Athena Foods Ltd, Ghana)
- 10.35–10.55 Linking farmers with agroindustry
 (Takyi Sraha, Technoserve, Ghana)
- 10.55–11.35 Agroindustry experience from Nigeria
 (Boma Anga, Goldchains Ltd. Nigeria)
- 11.15–11.35 Linking farmers with markets—NGO perspective
 (Ngozi Ajuonu, Rural Women Foundation)
- 11.35–11.55 Linking farmers' groups to markets
 (R. Attipoe, Farmapine, Ghana)
- 11.55–13.00 Discussions
- 13.00–14.00 Luncheon hosted by IITA/USAID

Sharing experiences in market-led agroenterprise development

Chairperson: V.M. Manyong, IITA

Rapporteur: W. Adekunle, IITA

14.00–14.10 Chairperson's remarks

14.10–14.30 Lessons on developing market opportunities from Uganda
(Shaun Ferris, IITA)

14.30–14.50 Lessons on promoting agricultural commercialization
(John Flynn, WI, USA)

14.50–15.10 Microfinance: opportunities for agroenterprise development
(Charles Volkral, USAID)

15.10–15.25 Tea/Coffee Break

15.25–17.30 Discussion

17.30–17.45 Synthesis and announcements

18.30–19.30 Cocktail (I-House terrace)

Thursday, 14 March 2002

State-level consultative meeting reports

Chairperson: S. A. Ingawa, Head, PCU/FMARD, Abuja

Rapporteur: Amin Babandi, PCU/FMARD, Abuja

08.30–08.40 Chairperson's remarks

08.40–09.10 Presentation of Abia State Consultative Meeting Report

09.10–09.40 Presentation of Adamawa State Consultative Meeting Report

09.40–10.10 Presentation of Katsina State Consultative Meeting Report

10.10–10.40 Presentation of Oyo State Consultative Meeting Report

10.40–10.55 Tea/Coffee break

10.40–12.40 Discussion

12.40–13.00 Syndicate group formation and terms of reference (ToR)

13.00–14.00 Lunch hosted by IITA/USAID

Identification of priority programs and activities for implementation

Chairperson: Ngozi Ajuonu, Rural Women Foundation

Rapporteur: K. Makinde, WI

- 14.00–16.30 Group meetings (3 groups)
1. Market development and MIS
 2. Microfinance and institutional linkages
 3. Technology transfer and training

Presentation of reports

- 16.30–16.35 Chairperson's opening remarks
- 16.35–16.45 Market development and MIS
- 16.45–16.55 Microfinance and institutional linkages
- 16.55–17.05 Technology transfer and training
- 17.05–17.50 Discussion
- 17.55–18.00 Closing remarks (Ravi Aulakh, Chief, Office of Economic Growth, USAID, Nigeria)
- 20.00 Workshop dinner at I-House

B: Project launching ceremony

Friday, 15 March

09.00–10.00 Arrival of guests and registration at the IITA Conference Center

10.00–13.00 National Anthem

- Introduction of Distinguished Guests and Chairperson (Ismail Adamu, MC)
- Welcome Address—Peter Hartmann, Director General, IITA
- Workshop Action Plan—Patrick Kormawa, RUSEP Coordinator, IITA
- Keynote Address—Howard Jetter, US Ambassador to Nigeria
- Agricultural commercialization and food security in Nigeria—Prof. Ango Abdulahi, Special Advisor on Food Security to the President, Federal Republic of Nigeria
- Goodwill Message—Alhaji Lamidi Adesina, Governor of Oyo State
- Goodwill Message—Chief Orji Uzor Kalu, Governor of Abia State
- Goodwill Message—Alhaji Umar Musa Yar' Adua, Governor of Katsina State
- Launching Address—Mallam Adamu Bello, Honorable Minister, FMARD
- Vote of Thanks—Dr S.A. Ingawa, HOU, PCU/FMARD
- Group Photograph

Lunch—I-House Terrace

2: Participants

S/N	Surnames	Other names	Address	Organization	Email	Telephone
1	Abass	Adebayo B.	IITA	IITA		
2	Abdulahi	J.P.	PCU - FMARD	Regional office, PCU, Kaduna		
3	Achem	Bello Ali	Fed. Dept of Agric, Sheda, PCU	Agro-industrial Devpt. Unit (AIDU)		
4	Adamu	Ismaila	PCU, Abuja	PCU		
5	Adegebo	Samson Adegbemi	Oje-owode road, Saki, Oyo State	Oyo State Agric Dev. Programme		
6	Adejebi	Deji	IITA, Ibadan	IITA		
7	Adekola	Sulaiman Aderoju	Farmers Supermart Iwo road, Ibadan	S.A. Adekola & Sons		
8	Adelowo	Wale	FRCN, PMB 5003, Ibadan	FRCN, Ibadan		
9	Adeniji	Peter Adewale	Atisbo L.G. PMB 123, Tede	Atisbo Local Government		
10	Adeniran	S.A.	PO Box 7300 Ibadan	OYSADEP		
11	Adenrimu	Tunde	Oje-owode road, Saki, Oyo State	OYSADEP (Oyo State ADP)		
12	Adesope	Ayodele Adewunmi	Dept. of Rural devpt. Secr. Ibadan	DRD (MANR & RD)		
13	Adewolu	M'SAM	Ajagunle, Oje-Owode rd, Saki-Oyo State	Bioscience and Agriculture		
14	Agu	Stephen Eke	Abia State ADP, PMB 7235, Umuahia Abia State	Abia State ADP		
15	Aiyedun	Ernest	Dept of Economics	University of Abuja		
16	Ajuonu	Ngazi Mercy	Blk 19, Plot 338, Durbat/Okora link rd, Lagos	Rural Women Foundation		
17	Akinpelu	M.A.	M-Olunrebi Farms	Kilo 15, Iddo-Elere Rd, Ido L.G.A. Oyo State	molufarms@hotmail.com	
18	Amoo	A.O. (Dr)	Saki	OYSADEP		
19	Amusa	Alhaji Yunusa Olatosun	% MANR &RD Section Ibadan	ALFAAN- All Farmers Apct. Ass. Of Nig. Oyo State Chapter		
20	Asaba	Olusegun A.	24 Oba Akran Avenue, Ikeja, Lagos	Guinness Nig Plc.		
21	Asumugha	G.N.	NRCRI	Umuilike, Abia		
22	Atolagbe	M.I.	Broadcasting house, Ikoyi, P.M.B 40003 Falomo	Voice of Nigeria		
23	Atipoe	Richard	PO Box NW 772, Njawan, Ghana	Farmapine Ghana Ltd.		
24	Ayeni	P.A.	Ballon House Iwo Road, GPO Box 1907, Ibadan	Syngentia Nig Ltd.		
25	Ayoola	M. Olakemi	Tede, Oyo State	Atisbo Local Government		
26	Ayoola	M.J.	PMB 123, Tede, Oyo State	Atisbo LGA		
27	Azogu	Ikechukwu	PCU Compound, Abuja	Agro-industrial Devpt. Unit (AIDU)		
28	Bello	I.O.	Iwo road. Ibadan	National Seed Service		
29	Bello	Sam Ajayi	24 OBA Akran, Ikeja	Guinness		
30	Biore	M.A.	Daily Times	Lareef Jakande Road, Agidighi		
31	Boma	S.A.	Goldchains Intl. Ltd.	3-5 Adeyemo Alakeja Str. NUJ House, VI, Lagos		
32	Booth	Robert	Ibadan	IITA		
33	Busari	A.O.	IITA	IITA		
34	Chianu	Jonas Nwankwo	Kyoto University Graduate School of Agriculture	Int. Rurl Dev. Division of National Resource Economics, Sakyoaku, Kyoto	jchianu@kais.kyoto-u.ac.jp	+81-(0)75-753-6296
35	Chukwu	Godwin Ogbonnaya	Research fellow at IITA	NRCRI Umuilike		

Annex 2. Participants contd.

S/N	Surnames	Other names	Address	Organization	Email	Telephone
36	Dr Joshua	Adeyemi	Premier Seed Nigeria, Ltd.	MD/CEO Premier Seed Nig. Ltd & Seed Association of Nigeria		
37	Dr Molokwu	Chris	PCU Sheda	PCU Sheda.		
38	Ekop	Merry	PO 36150, Agodi, Ibadan	Family Unity For Sustainable Dev. Foundation		
39	Ezeagu	Ikchekwu Edwin	15 Ibhikunle Ave, Bodija. PO 9984, UI	Resource & Food Security Foundation (REFSEF)		
40	Fagade	S.O.	14 Lason Adigun, off Ringroad, Ibadan	Share Foundation (NGO)		
41	Fayinka	F.A.	Durable Precision Systems	8 Amunwaye St. Box 268 Oyo, Oyo State	038-240642	
42	Ferris	Shaun	IITA, Kampala	IITA		
43	Flynn	John B.	Culbyrn, VA, USA	WINROCK		
44	Halos-Kim	L.O.	Ibadan	IITA		
45	Hanssens	Niels	BP EY57, Bamako, Mali	WINROCK		
46	Hell	Kerstin	IITA			
47	Ibrahim	Ibrahim Danja	PMB Karsina	Karsina State Agric & Rural Dev. Authority		
48	Ibrahim	U.D.	KTARDA	KTARDA, Karsina		
49	Ibrahim	Ibrahim Danja	PMB Karsina	IITA		
50	Joseph	B	126 Oyo Road Ajibode B/Stop	Nova Tech Ltd.		
51	Keatinge	Dyno	Ibadan	IITA		
52	Kolawole	K.B.	Moore plantation, Ibadan	PCU		
53	Kormawa	Patrick	IITA, PMB 5320	IITA/RUSEP		
54	Ladoja	Muyi	386/394, Ikorodu road, ojota, Lagos	Real Food & Allied Industries.		
55	Lanipekun	O	Olode, Apapa	GASURD		
56	Lawal	Y. Adebayo	Secretariat, Ibadan	MANR & RD		
57	Makanjuola	Sam Adeolu	PO 907, Agodi, Ibadan	Samie Holdings Ltd.		
58	Makinde	Moses Ajibade	63/71 Broad Street, Lagos, Nigeria	Nigerian Association of Small and Medium Enterprises (NASME)		
59	Manyong	Victor	IITA, Ibadan	IITA		
60	Mazyia-dixon	Busie B.	IITA Oyo road, Ibadan, Nigeria	IITA		
61	Mensah	Tony Antwi	PO 2344, Tema, Ghana	Adienna Foods Ltd.		
62	Nwogu	Ernest	PMB 7235 Umuahia	Abia State ADP		
63	Obamiro	Eunice Oluymiesi	RCMD-IITA Ibadan	IITA		
64	Obiogo	Sandra	9, Balarabe Musa crescent, V.I., Lagos	Communicating for Change		
65	Obisaje	R.A.	11 off Kuntle Abbas, New Bodija, Ibadan	Living Rock Int. Ministries		
66	Oghurna	Oshoke Dominic	Km 46, Lagos-Abokuta, Expressway	Adiaké Stockbridge Farms (Subsidiary of DAIGOC Group)		
67	Ogunfowora	Olabisi	33A, Oguolu GRA, PO Box 7184, Somolu, Lagos	Abise Consulting System		
68	Ogunfubile	A. O. (Prof)	IAR ABU, Zaria	IAR/ABU		
69	Ogunyinka	Olarawaju	Ibadan	IITA		
70	Ojurongbe	Jide	Ibadan	ICS/IITA		
71	Okoro	Eme	Abia ADP, Umuahia	ADP/ABIA		
72	Okoroafor	PB.	FMA & RD	Area II, Garki, Abuja		
73	Oladimeji	O.A.	WARDA, IITA	WARDA		
74	Olaniyan	Ebenzezer	Saki	OYSADEP		

Annex 2. Participants contd.

S/N	Surnames	Other names	Address	Organisation	Email	Telephone
75	Olaoye	I.O.	NAERLS, Abuja	PMB 5217, Ibadan	SwmaerlsIbadan@stanmet.com	02-2312932
76	Olarawaju	Olanyan	Saki	OYSADEP		
77	Olojede	Adeyemi Olujide	PMB 7006 Umuaibia	NRORI Umudike		
78	Olonu	Akinola Samuel	% 386/394, Ikorodu road, Ojota, Lagos	Real Food & Allied Industries		
79	Olutogun	O	Department of Animal Science	UI		
80	Ononiwu	Godson D.	Abuja	PCU, ABUJA		
81	Onyibe	Johnson Ehima	NAERLS, Ahmadu Bello University, PMB 1067	NAERLS, Ahmadu Bello University, Zaria		
82	Osagie	Crusoe Nosa	35, Creek rd, Apapa Lagos	THISDAY		
83	Oyetokun	Ademola Olufemi	NAERLS SW Zone, Ibadan	NAERLS		
84	Oyeckan	Peter O.	Ibadan	IAR&T. Moore Plantation, Ibadan		
85	Oyeleye	O.S.	Ruzam House, Isolo	Guardian Newspaper Ltd.		
86	Oyewole	L.O.	Km 19, Ibadan-Ife Expressway Olopomeji, Ibadan	Real Food & Allied Industries		
87	Akande	Prof. S.O.	PMB 5, UI Post Office, Ibadan	NISER		
88	Quadri	A. O.	FDRD	Fed. Dept. of Rural Dev. Wise Zone 5, Abuja		
89	Rabeen	A. O.	REFAJ	C/O 386/394 Ikorodu Road, Ojota, Lagos		
90	Salihu	H. Maska	Katsina State Agric & Rural Dev. Authority	Katsina ADP		
91	Sanni	Edith Adesola	1 Yomi Osikoya Solobo Ikorodu, Lagos	Grace & Glory Farms Representative		
92	Shohowale	Olasunkanmi Joseph	FMA & RD, Abuja	National Seed Service		
93	Singh	H.B.	IFDC (DAIMAINA Project)	Plot 737 Pananma St., Maitama, Abuja	ifdcnig@linkserve.com	4130036
94	Sosanya	Janet Oladunni	Saki	OYSADEP		
95	Sraha	Takyi	PO 135, Accra, Ghana.	Technoserve, Ghana		
96	Sule	Bello	Fmard Area 11 Garki Abuja.	PCV		
97	Taylor	A.O.	PMB 40003 Falomo Ikoyi	VON		
98	Udoh	E.J.	UI	Dept. of Agric. and Econ/ Extension		
99	Vider	Z.	Creek Road Apapa	WTG		
100	Williams	Peter	Plot 1267 Buchanan crescent, Wise II, Abuja	WINROCK		
101	Yahaya	A.	KTARDA	KTARDA, PMB 2606, Katsina		02-8100478
102	Akingbade	I.S.	FMA&RD	11 Ilaro St. Old Bodija, Ibadan		02-2310000
103	Osho	F.O.	Nigerian Tribune	Nigerian Tribune	shade-jumoke@yahoo.com	02-2310000
104	Oguniola	Folasade	This Day	Ibadan Oke Padre		02-2121113
105	Ademola	Felix	The Monitor	Lister House, Ring Road, Ibadan		2318869-71
106	Adediran	Dare	Vanguard media	1 Araromi St. Oke Padre, Ibadan		02-2412343
107	Fasube	D.F.	IITA	Providence Court, Mokola, Ibadan		02-8104657
108	Odiaka	S.N.	Punch			
109	Omofoye	Tunji	Minister of Agriculture			
110	Agobu	Chris	UNIDO			
111	Yunkella	Kandeh	The Comet			
112	Akinsola	F.A.	IITA			
113	Ezedinma	C.I.	IITA			
114	Adekunle	A.A	IITA			
115	Makinde	K	IITA			
				Lagos		
				Lagos		
				Ibadan		
				Ibadan		
					feola@onebox.com	5455627

About IITA

The International Institute of Tropical Agriculture (IITA) was founded in 1967 with a mandate for improving food production in the humid tropics and to develop sustainable production systems. It became the first African link in the worldwide network of agricultural research centers supported by the Consultative Group on International Agricultural Research (CGIAR), now known as the Future Harvest Centers.

IITA is governed by an international board of trustees and is staffed by approximately 80 scientists and other professionals from over 30 countries, and approximately 1300 support staff. Staff are located at the Ibadan campus, and also at stations in other parts of Nigeria, and in Bénin, Cameroon, Côte d'Ivoire, and Uganda. Others are located at work sites in several countries throughout sub-Saharan Africa. Funding for IITA comes from the CGIAR and bilaterally from national and private donor agencies.

IITA's mission is to enhance the food security, income, and well-being of resource-poor people primarily in the humid and subhumid zones of sub-Saharan Africa by conducting research and related activities to increase agricultural production, improve food systems, and sustainably manage natural resources, in partnership with national and international stakeholders.

IITA conducts research, germplasm conservation, training, and information exchange activities in partnership with regional bodies and national programs including universities, NGOs, and the private sector. The research agenda addresses crop improvement, plant health, and resource and crop management within a food systems framework and targeted at the identified needs of four major agroecological zones: the dry savanna, the moist savanna, the humid forests, and the midaltitude savanna. Research focuses on smallholder cropping and postharvest systems and on the following food crops: cassava, cowpea, maize, plantain and banana, soybean, and yam.

Cosponsored by the World Bank, the Food and Agriculture Organization of the United Nations (FAO), and the United Nations Development Programme (UNDP), the CGIAR is an informal association of over 40 governments and about 15 international organizations and private foundations. The CGIAR provides the main financial support for IITA and the 15 other Future Harvest Centers around the world, whose collective goal is to improve food security, eradicate poverty, and protect the environment in developing countries.

RUSEP Coordinating Office

International Institute of Tropical Agriculture,
PMB 5320 Ibadan, Oyo State, Nigeria.
Tel: (234 2) 241 2626
Ext. 2301. Fax: (234 2) 241 2221

International Mailing Address

RUSEP-IITA, Nigeria.
c/o Lambourn (UK) Limited
Carolyn House, 26 Dingwall Road,
Croydon CR9 3EE, UK

