



PUTTING RESEARCH INTO USE:

**STIMULATING DEMAND  
FOR INFORMATION IN  
SUB-SAHARAN AFRICA**

Connecting know how with know who to improve livelihoods

The Research into Use Programme has recently appointed country teams to work in partnership with organisations in Malawi, Nigeria, Rwanda, Sierra Leone, Tanzania and Zambia. They aim to enhance the demand for and use of research results generated through past DFID Renewable Natural Resources Research (RNRRS) and research generated elsewhere such as in CGIAR centres and the National Agricultural Research Systems (NARS). Each country programme is managed by a three person team comprising of a Country Coordinator, a National Process Facilitator and a National Monitoring and Learning Coordinator.

Our work focuses on strengthening existing innovation systems through using new knowledge and technologies in new ways in agricultural value chains in these countries. This inclusive system sees all the stakeholder institutions between 'farm and fork' as potential demanders/users of new information – not only farmers; these will require a diversity of cross-sectoral information and capacity development to strengthen their role. We see farmers, extension agents, processors, manufacturers, suppliers of goods and services, consumer groups and other bodies involved in the value chain as potential targets for capacity development and as active members in a marketplace for information whose adoption will ultimately improve the livelihoods of the poor.

At the national level, we foresee a two pronged approach to implementation:

- i) through building a National Innovation Coalition made up of experienced development professionals: the private sector, academics, policy makers and shapers and practitioners to provide sustainable strategic national oversight over research into use approaches;
- ii) strengthening existing sub-national networks (or platforms) around agreed issues, opportunities or commodities through creating incentives which stimulate the market for suppliers and users of research information. Apart from resulting in more widespread application of new information for poverty reduction, learning how to strengthen national innovation systems and promoting the lessons are key drivers for the programme.



## Malawi

### Country Background

Many Malawians rely on subsistence farming, but the food supply situation is precarious and the country is subject to natural disasters of both extremes - from drought to floods. Its single major natural resource - agricultural land - is under severe pressure from rapid population growth. It has a population of around 13.9 million (UN 2007) and a land area of 118,484 sq km. Major languages are English and Chichewa (both official). General life expectancy is 48 years for both men and women (UN). GNI per capita is US\$250 (World Bank, 2007).

### How RIU is strengthening the Malawi Innovation System

The RIU has facilitated the emergence of a National Innovation Coalition (NIC) under the patronage of the Ministry of Agriculture and Food Security. It has supported the establishment by the NIC of learning groups for Farmer Empowerment, Process Facilitation and Information and Communication. The groups will be the initial foci for system-wide human capacity development in the Innovation System. The NIC has also led the process for identification of the initial groups of platforms that will undertake research into use activities around a commodity or livelihood issue (see below). These groups are being facilitated to undertake diagnosis of the systemic blockages that impede innovation. The RIU activities will target these blockages.

### Research into Use Activities to be Supported

The initial platforms identified by the Malawi NIC include:

- **Legumes, Soya Beans, Groundnuts:** Encourage greater legume production using improved varieties as a means of improving household nutrition and encouraging diversification. Research outputs from the RNRRS to be used include: analytical and policy principles for planning research and technology uptake (CPH12); dissemination of improved bean varieties (CPP28); and seed priming to help boost legume production (PSP26)

- **Livestock:** Increased production, productivity and marketing of dairy and pig units identified for priority action. Research outputs to be used include: snack bags for cows to boost smallholder milk production (LPP03); handy bales save livestock keepers money (LPP05); easy-to-make urea-molasses blocks to boost milk production (LPP08); simple steps to strengthen the market capacity of pig producers (CPH09)
- **Fisheries:** Increase the commercial production of fish through aquaculture and improved management of fisheries in Lake Malawi.
- **Horticulture:** A number of potential in-roads to improve the industry have been identified: e.g. improved agro-processing for adding value; and improved compliance with market standards and quality compliance. Research outputs to be used include: better organisation of farmers to help them access markets (CPH10)
- **Cotton:** 200,000 smallholder farmers are totally dependent on cotton for cash income. Productivity is currently very low and consequently cotton farming dependent households are amongst the poorest in the country. Research outputs to be used include: ploughs, hoes and cheap herbicides beat weeds in cotton (CPP67); clearing blockages in the cotton value chain (CPP38).

### What Organisations are the RIU working with?

CAADP, NEPAD, Ministry of Agriculture and Food Security, national and international NGOs, Farmers Associations, Private sector, CGIARs, Government and Academia.

### Early Successes

The new institutional arrangements for innovation are already being recognised by donors as appropriate conduits for channelling resources for supporting innovation. The NIC has been invited by the DBSA to submit proposals to the tune of €8 million for its aquaculture platform. Similarly a proposal has been invited by Irish Aid for support worth \$4.75 million dollars for the legumes platform. The NIC has already developed a Cotton Development Forum – a public /private partnership to identify and clear blockages in the cotton value chain.

### Legacy

By 2011 RIU aims to leave behind a strong national coalition to support the use of an innovation systems approach to address continuing blockages in the value chains. RIU will also leave a legacy of competent facilitators for this approach embedded in different organisations and a thriving information market that includes all the key actors along the value chain, from farmers to consumers.



## Nigeria

### Country Background

Nigeria, Africa's most populous country, has 148 million people of which 70% of the workforce engages in subsistence agriculture and depends on local use and management of community-based natural resources for livelihoods. The four main languages are English (official), Yoruba, Ibo and Hausa. The general life expectancy is 46 years for men and 47 years for women (UN). The GNI per capita is US\$560 (World Bank, 2006). Nigeria is the world's largest producer of cassava. The Nigeria RIU team was established in October 2008.

### How RIU is strengthening the Nigeria Innovation System

National coalitions are forming around cowpea/soybean, cassava, and catfish value chains. A fourth coalition consists of policy actors on the specific innovation platforms.

Local innovation Platforms will be broad-based, with strong participation from different sectors, particularly the private sector.

### Research Into Use Activities to be Supported

The programme has three areas of focus. These are:

- Increasing the production and use of cassava flour to respond to the national policy directive on use of cassava flour. Potential RNRRS research products to be used are: communities benefit from new cassava varieties (CPP22); winning the battle against cassava mosaic virus (CPP24); partnering with farmers in cassava breeding (CPP23)
- Facilitate cowpea/soybean commodity system actors to adapt to a policy directive on crop-livestock integration. Candidate RNRRS products being identified
- Facilitating innovation within the aquaculture system, e.g. through providing knowledge on the local production of floating fish feed for catfish. This sector has historically been dominated by rural women



across the value chain, and mostly led by informal, small scale micro – entrepreneurial effort. Potential RNRRS products include: aquaculture mix boosts productivity (AFGP04); fish in urban areas (AFGP03).

RIU-Nigeria is facilitating synergies between actors in the system to achieve efficient flow of information from knowledge generators to knowledge users.

#### Partnerships will include

NEPAD, Agricultural Development Programmes (ADPs); Cassava: Adding Value for Africa (CAVA); Agricultural Research Council of Nigeria (ARCN); Forum for Agricultural Research in Africa (FARA); Comprehensive Africa Agricultural Development Programme (CAADP); Promoting Pro-Poor Opportunities Through Commodity and Service Markets (PrOpCom).

#### Legacy

By 2012, innovations (implementation of knowledge) in the three sectors will have been achieved and linkages between actors in the system to maximize the future flow of information for further innovation will have been strengthened.



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## Rwanda

#### Country Background

Rwanda is a country which emerged from conflict in the nineties and was faced with many challenges to reconstruct the country. Since then it has made tremendous progress in its socio-economic development. Rwanda has a population of 9.7 million and covers an area of 26,338 sq km. The major languages are Kinyarwanda, French, English and Swahili. The country is striving to rebuild its economy, with coffee and tea production being among its main sources of foreign exchange. More than half (56.9%) of the population

live below the poverty line. Life expectancy is 45 years for men and 48 years for women (UN figures). GNI per capita is US\$230 (World Bank, 2006).

The Rwanda team was first established in 2006. Key issues they have addressed in their strategic approach are weak links between players in the agricultural innovation system particularly around exchange of knowledge and the need to create an environment in which information flows effectively between actors involved in actual and potential innovation. Their solution was to build effective and trusting operational links between the various parts of the innovation system by establishing a broad based national agricultural innovation network (NAIN) and a series of innovation platforms.

#### How RIU is strengthening the Rwandan Innovation System

The National Innovation Coalition (NIC) is the most important innovation platform, launched in February 2008 and seen by the Ministry of Agriculture as an important arm for national agricultural development strategies. It works on institutional strengthening through networking of individual organisations in the public and private sectors dealing with innovations.

Local innovation platforms to remove bottlenecks in value chains have come together for Cassava, Round Potato and Maize.

#### Research Into Use Activities to be Supported

- **Maize:** In Nyagatare District in the Eastern Province, farmers and organisations involved in the production and processing of maize are working to improve performance across the value chain through innovation. Research products to be put into use include: 'the introduction of post-harvest processing infrastructure for maize', and 'multiplication and dissemination of a new Quality Protein Maize variety M 081' in collaboration with ISAR. Also RNRRS products such as 'new market chain approaches' (CPH01) and 'Together to market' (CPH26)
- **Cassava:** Platform established in Gatsibo District in the Eastern Province is also focused on improving performance through innovations in the entire value chain, through use of MVD resistant varieties, processing and marketing. RNRRS outputs on the multiplication and dissemination of MVD resistant cassava varieties will be put into use (CPP01, PSP15, and CPP 24)
- **Potato:** The platform in Gicumbi District of the Northern Province is working to achieve innovations in production of high market value potato and processing into diverse products –RNRRS products such as: 'new techniques multiply success with potatoes' (CPP02) and 'farmers learn to profit from not saving seed' (CPP10) will be outscaled.
- The Karongi Rural Innovations Platform has brought together small size associations engaged in agro-processing of local agricultural products with the objective of innovations for more effective institutional organisation and better marketing of their products. RNRRS products such as the 'new participatory Market Chain Approach (PMCA) (CPH01) will be tested.

- **Information Markets:** The National Agricultural Information Network (NAIN) Information Market is a systematic ICT based mechanism for the collection, provision of and access to comprehensive information on scientific and technological knowledge to all stakeholders in the agricultural sector in the country.

#### Partnerships will include

Ministry of Agriculture and Animal Resources; Ministry of Science, Technology and Scientific Research; National public extension agencies in agricultural and livestock development (RADA and RARDA); research institutions: the National Agricultural Research Institute ISAR and the Faculty of Agriculture of the National University of Rwanda local NGOs such as the Rwanda Development Organisation (RDO), women organisations organised under the umbrella organisation PROFEMME TWESE HAMWE, Rural Financial Institutions, the institution in charge of capacity building of rural SMEs – CAPMER; the Private Sector Federation (PSF) and the Cooperatives promotion agency in the Ministry of Commerce and Cooperatives; and farmer cooperatives organised under the apex organisation ROPARWA. A number of Government and donor funded projects with related innovations activities are strong partners of RIU Rwanda.

#### Legacy

By 2012 the National Innovation Coalition will be the key actor/driver in agricultural innovation systems; a sustainable and private sector-driven information market mechanism will be in use; and innovation systems approaches will be adopted by the public and private sectors in Rwanda.



## Sierra Leone

#### Country Background

The population of Sierra Leone is 4.9 million people and covers an area of 72,000 sq. km, 70% live below the poverty line. There is high unemployment and underdevelopment, particularly as a result of the ten-year civil war. The average life expectancy is 41 years according to UN figures. The main exports are diamonds, rutile, cocoa, coffee and fish. According to 2006 World Bank figures the GNI per capita is US\$220 and is at the bottom of the UN's league table for human development.

The SL-RIU now has a full team in place and is faced with many challenges; one of the biggest is engaging youth in productive natural resources based livelihoods. The team have identified that existing knowledge is not being used on any scale for innovation – conditions for use are lacking and bottlenecks in agricultural/value chain stem from information and coordination failures. The SL-RIU secretariat is located within the Ministry of Agriculture, Forestry and Food Security building.

#### How RIU is strengthening the Sierra Leone Innovation System

A workshop in Sierra Leone held early in 2008 led to the founding of the Partnership in Agricultural Innovation for Development (PAID). PAID-SL is a social business network comprising of public and private sectors, research institutions, NGOs, universities, civil society, farmers and farmers' organisations. In addition local platforms have been identified to deal with priority concerns identified through national consultation.

#### Research Into Use Activities to be Supported

- **The PAID:** The PAID has been established via a facilitation process initially led by the RIU country team and also informed by the CSPD Team but now operating under autonomous management with ongoing support.
- **The Knowledge Broker:** To offer linkages between demands for information and services and the provision of these from members of the PAID and others including national and international research sources.
- **The Demand Support Facility:** Institutional arrangement(s) whose role is to drive demand for, involvement with, and use of the other platforms including PAID and the Knowledge Market Services, with a strong focus on involvement of relatively remote, disenfranchised or otherwise disadvantaged groups.
- **The Innovation Finance Facility:** To offer financial brokerage services to PAID members. This acts as a conduit to sources of finance for selected Innovation concepts and business plans.
- **Policy Platform:** To link up with the proposed sector coordination mechanism that has been established by the Ministry of Agriculture and Food Security and other policy frameworks that might impact the agriculture sector.
- **A Fast-tracked Innovation Platform for the Pilot:** Solar Drying and Poultry Feed.

Participatory Market Chain Approach; Access to knowledge can change reality [CPH13]; Partnership based innovation can break bad habits [CPH12]; Together to market [CPH26]; Capturing farmer demand [CPP58]; Helping to access information they need [LPP28]; Finding better ways of disseminating research results [CPP37]

#### Partnerships will include

Regional initiatives, national initiative, Private and Public sectors, Financial Institutions, Universities, Policy Makers, Govt Committees (MAFFS), Research Institutions, Community Based Organisations, Non Governmental Organisations.

#### Legacy

By 2012 the Sierra Leone team aim to have developed an innovation systems approach which integrates youth into agricultural value chains and documents how to put research into use in a post-conflict environment.



## United Republic of Tanzania

#### Country Background

Tanzania has a population of 40.4 million (UN, 2007) and an area of 945,087 sq km. Though it remains one of the poorest countries in the world, with many of its people living below the world poverty line, it has had some success in attracting donors and investors. Its major languages are Swahili and English; life expectancy is 51 years for men and 54 years women. The main exports are sisal, cloves, coffee, cotton, cashew nuts, minerals, and tobacco. According to World Bank figures in 2006 the GNI per capita was US\$340. The Tanzania team was recruited in the summer of 2008 and is now working on implementing the country strategy.

#### How RIU is strengthening the Tanzania Innovation System

In Tanzania the approach will combine a Country Challenge Fund and an Innovation Systems approach to address the issues surrounding slow growth in the agricultural sector. In Tanzania growth is far lower than it should be. The blockages and capacity issues that stop the high number of research outputs which the country generates from being used to innovate need to be identified and resolved.

The selection of platform themes and consequently the utilisation of the Challenge Fund will fit into the existing priorities in the Eastern Zone defined by the Zonal Information and Extension Liaison Unit (ZIELU), a unit responsible for linking research, extension and farmers' priorities in the Zone.

Another model to be used will be a national competition for innovators to develop business models to best ensure the promotion, utilisation and demand for agricultural related information and knowledge. The winning model will then be marketed to other interested parties to develop it further.

Finally there will be a process of identifying relevant research outputs and making them more accessible by repackaging them in appropriate formats. As in other RIU country programmes a national innovation coalition and platforms around chosen themes are being established.

#### Research into Use activities to be supported

A National Innovation Coalition, an ad-hoc body that draws together a number of organisations to drive institutional innovation is being established. In Tanzania, the NIC will also work as a policy platform to collect lessons and experiences from all RIU interventions and filter them into the national policy formulation process.

#### Local Innovation Platforms will address:

- **Farm Implements:** this platform will focus on enhancing farm productivity on smallholder farms through increased access to and capacity for using draught power opportunities in Kilombero, Kilosa and Mvomero Districts
- **Post Harvest Management:** this platform will concentrate on maximizing the income of smallholder farmers from better quality rice and maize and reduced post harvest losses in Morogoro region.
- **Dairy Development platform:** this will focus on how to use the income opportunities in the dairy sub-sector through enhancing the production, processing and marketing of milk in the smallholder sector in Tanga and coast region.

#### Research into Use Activities to be supported

About 48 potential Research Outputs have been identified from the RNRRS basket that could be demanded and utilised by the three platforms. More searching is being done for complementary outputs generated by other research programmes in the country.

#### Partnerships will include

Ministry of Agriculture, Department of Research and Training; Ministry of Agriculture, Post Harvest Unit, Agricultural Sector Development Program (ASDP); Sokoine University of Agriculture, Faculty of Agricultural Sciences; Regional Priorities e.g. FAMOGATA (a Swahili acronym for "make Morogoro Region the National Granary).



## Zambia

#### Country Background

Zambia is a landlocked country and with a population of 11.9 million (UN 2007) scattered over an area of 752,614 sq km. The vastness of this country presents not only tourism advantages but also development challenges because of remoteness which is often linked to high poverty levels. Millions of Zambians live below the World Bank poverty threshold of \$1 a day. The life expectancy is 42 years for both men and women (UN) and Aids is blamed for decimating the cream of Zambian professionals - including engineers and politicians - and malaria is a major problem. The GNI per capita is US\$490 (World Bank, 2006). The strategy for the RIU Programme in Zambia is now complete and the major thrust is centred around the drivers of poverty affecting rural households.

#### The key drivers of poverty in this respect comprise:

- remoteness and isolation, and the consequent lack of access to services and markets and means to improve livelihoods;
- household diversity, which yields uneven influence and economic empowerment that undermines poverty alleviation;
- socio-cultural determinants, key elements of which creates low influence and economic empowerment across women and men, those facing stigma, and other factors; and

- a development approach that does not prioritise investment in rural livelihoods. These development challenges have worsened in recent years, with large numbers of refugees from the Democratic Republic Congo (DRC).

#### How RIU will strengthen the Zambia Innovation System

These challenges offer RIU an important strategic advantage specifically associated with Renewable Natural Resources Research Strategy (RNRRS) processes and products.

#### The Zambia country strategy revolves around three major themes:

- Enhancing the capacity of rural communities to demand services and participate in value/market chains
- Strengthening knowledge market mechanisms and services in a manner that focuses on the needs of remote areas but which are far more widely accessible; and
- Using evidence from the above to influence policies that favour interventions which overcome constraints and limit provision of services to remote area.

#### Research Into Use Activities to be Supported

The strategy team have identified research from CGIAR, National Agricultural Research Stations, and University of Zambia (UNZA) and RNRRS knowledge banks. They will be working with the Zambian National Farmers Union (ZNFU), the National Association of Peasant Smallholder Farmers (NAPSF), and other institutions and agencies engaged in the natural resources sector to stimulate demand for knowledge and information for development.

The following RNRRS outputs are seen as appropriate: CPH13 (Access to knowledge can make change a reality), FRP48 (Creating dialogue to influence policy), NRSP17 (Strengthening local organisations gives farmers more say in local policy) and CPH11 (Community parliaments make voices heard and needs felt).

#### Partnerships will include

RIU Zambia country team has just been recruited and together with a team of consultants will soon commence work on developing the implementation plan. This plan will detail engagement with the diversity of government / non-governmental as well as private sector organizations mapped during the country assessment. The Permanent Secretary, Ministry of Agriculture & Cooperatives (MACO) is Patron to the Programme and members of the interim NIC are representatives of the Cotton Association of Zambia (CAZ), UNZA, Golden Valley Research Trust (GART), Donor agencies (World Bank, USAID, NORAD) Agri-inputs Association of Zambia.

#### Legacy

By 2012 the team aim to: leave remote communities with an improved ability to articulate demand for services including research outputs; and a more efficient innovation system with improved institutional organisational capacity to participate in market value chains.



Research Into Use is a pioneering five year programme, funded by the UK's Department for International Development (DFID). It works to get new livelihood-improving development options into wide-scale use – so that they benefit large numbers of poor people.

A major goal is to put into practice the tried and tested results of research on natural resources funded by DFID and others. We're working closely with in country partners, to spread the word about these options, stimulate demand for them and help people adopt, adapt and commercialise them where possible.

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RIU is managed by Natural Resources International Limited, in association with Nkoola Institutional Development Associates Ltd (NIDA) and Michael Flint and the Performance Assessment Assessment Resource Centre.

The RIU database describing the wealth of technologies, polices and processes developed by the DFID programmes can be found on the RIU website [www.researchintouse.com](http://www.researchintouse.com).

Copies available on request from RIU country offices.

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