



West Africa Livestock Innovation Centre (WALIC)



Business Plan 2013 -2022

Cover Photographs

Baoulé cattle, Korogho village, Côte d'Ivoire (Photo: Trevor Wilson)

“Forest” sheep, Fashola, Nigeria (Photo: Trevor Wilson)

West African Dwarf goat, Bolgatanga, Ghana (Photo: Trevor Wilson)

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Executive Summary

Domestic animals do not contribute to human welfare only through their role in food production and food security. They are a source of income, a generator of employment, a supplier of inputs and services to crop agriculture and (when properly managed) a contributor to environmental conservation and have a host of other, not clearly definable, roles in the social and cultural areas. Increased livestock production keeps product prices down and therefore allows access to them by the poor. Paradoxically, producers should gain from lower prices as livestock products are both price and income elastic. Lower prices therefore increase demand, raise total production and lead to higher farm incomes. Increased production and low prices may help low income consumers to overcome both energy and protein deficiency simultaneously. In addition to the foregoing increased domestic production reduces imports and saves foreign exchange. This can then be diverted to productive investment and indirectly contribute to food security.

This Business Plan builds on a 10-year (2013-2022) Strategic Plan for the West Africa Livestock Innovation Centre (WALIC) an institution built on the achievements and contributions of the International Trypanotolerance Centre (ITC) to the livestock sector. WALIC will work on a broader mandate and work with many more countries in the West Africa region (geographical area than its predecessor the International Trypanotolerance Centre). The Plan strategic was developed following extensive participatory consultations in the ECOWAS region and is an initiative for a joint venture created by ITC and several other African stakeholders. WALIC will be recognized as a technical arm of the Commission of the Economic Community of West African States (ECOWAS). WALIC will also expand its focus from concentrating mainly on indigenous ruminant breeds that are naturally tolerant to tsetse-transmitted trypanosomosis.

The Vision is a vibrant West African livestock sector that boosts food security, contributes to the creation of wealth and safeguards the environment.

The Mission is to unlock the potential of West Africa's ruminant livestock sector through innovative partnerships and knowledge-based solutions that empower stakeholders along value chains.

Unlike ITC – a research institute -- WALIC will be an innovation centre. Although research for development on indigenous livestock will be part of WALIC's mandate the centre will pay substantial attention to promoting institutional change through capacity building (of all stakeholders from the very small producer with very few animals to policy makers at government level); knowledge management; advocacy and partnership. The mandate has been designed to respond to the context, trends, opportunities and challenges facing the West African livestock sector in the twenty first century.

As an innovation centre, WALIC's role will not be mainly as an implementer of research but also as a catalyst, facilitator, partnership and knowledge broker, advocate for more enabling policies and institutions, a resource mobilizer and a coordinator. Implementation of many WALIC programmes, projects and activities will be undertaken by carefully selected partners from the member countries, the private sector *per se*, public-private partnerships and civil society.

WALIC's strategy is aligned with African priorities in food and agriculture, science, technology and capacity development. No simple set of priorities exists for the science in advancing African agriculture but several priority themes are emerging from Pan African and regional organizations and national governments and include:

- Food and nutritional safety and security;
- Income generation for small scale producers;
- Adaptation to climate change;
- Environmental sustainability including conservation and use of biodiversity; and
- Increasing regional and international trade.

The WALIC Strategic Plan will be implemented in four phases. These are described as Take off (2013-2014), Climb out (2015-2018), Cruise (2019-2022) and entry into a New Strategy (2023-20??).

Changing socioeconomic conditions in West Africa coupled to a rapidly growing human population with aspirations to a better quality of life will ensure that more consumers will demand more red meat and milk as part of their daily diet while natural resources such as land becomes scarcer. It is important that both trypanotolerant and other indigenous livestock in WALIC's area of operations be conserved and exploited to the fullest extent possible. In this context the Business Plan is based on values that will govern WALIC and these are that it must be:

- **Accessible** as a shared research and development platform;
- **Affordable** in that the benefits generate must exceed the costs incurred;
- **Financially secure** in the long term;
- **Magnanimous** in sharing success with stakeholders; and
- **Totally transparent** in all its activities and actions.

The direct principles that will guide WALIC's engagement with partners and stakeholders are that:

- **Innovative partnerships** will be achieved through proactive brokerage and facilitation of multistakeholder platforms;

- **Stakeholder empowerment** results in strength in numbers and acknowledges that information is power, knowledge is strength and competency is important;
- **Balance** must be maintained between private, regional and international public goods;
- **Commercial drive** will achieve financially sustainable solutions;
- **Environmental sustainability** that succeeds today will not compromise tomorrow; and
- **A value chain** approach is adopted with a deliberate focus on women and youth.

The Centre will be small relative to its mandate and thus will place strong emphasis and reliance on strategic partnerships. A large part of the programme relates to catalyzing partnerships as a strategic deliverable and WALIC will formalize these relationships with a Memorandum of Understanding (MoU) and Letters of Agreement (LoA). The Centre will be selective in its partner choice and innovative in developing and managing partnerships and alliances to leverage expertise and other resources while maintaining meaningful and productive relationships. Excellence in partnership development and management is a primary aim of the Centre. WALIC will develop staff and stakeholder skills in partnership management in a proactive manner.

Strategic analyses of the current situation, extensive stakeholder consultations and consideration of the appropriate mandate of a livestock technical arm of ECOWAS led to the identification of four strategic thematic areas and an associated number of activities that will form the focus of WALIC's work over the next ten years:

1. Genetic improvement, conservation and better use of West African ruminant livestock;
2. Capacity development along livestock value chains;
3. Knowledge management; and
4. Advocacy and partnership brokerage

1. Genetic improvement, conservation and enhanced use of West African livestock

- *Development of a West African strategy and implementation framework*
- *Enhancing the use of indigenous livestock resources*
- *International evaluation of strategically selected breeds and crossbreeds*
- *Development of a multi-lingual (English, French, and Portuguese) livestock genetic resources database for West Africa*

2. Capacity development along the livestock value chains

- *Facilitating economies of scale and link to higher value markets*
- *Improving smallholder access to inputs, advisory services and finance*
- *Attracting youth and 'new entrants' to livestock farming as a business*
- *Facilitating the development of specialist national institutes to address regional challenges*

3. *Knowledge management*

- *Testing a range of options on use of ICT to improve the efficiency and transparency of livestock value chains*
- *Development of specific knowledge products, including databases and multimedia*
- *Facilitate development of weather and climate databases.*
- *Economic and policy analysis*

4. *Advocacy and Partnership brokerage*

- *Creating enabling policy and investment environment for livestock*
- *Partnerships as a mechanism to share and coordinate use of resources and expertise*
- *Partnerships to facilitate livestock value chain development*

To translate the strategic plan into action, WALIC will pay specific attention to detailed operational functions such as:

- i. *Priority setting*
- ii. *Communications*
- iii. *Partnerships and strategic alliances*

WALIC will need a significant increase in resources to deliver the new 10-year strategy. The funding portfolio will need to be diverse in terms of both its sources and its intended use. Most development investors are increasingly tying grants to specific projects. The WALIC strategy contains many interesting concepts but the challenge will be to match these to the right donors and to develop them into fundable projects – as ITC latterly failed to do – with clear deliverables.

As work packages develop under the four themes the centre will aim for an initial budget growth of 10 per cent per annum to reach a total annual budget of US\$ 4 million by the fifth year of operations. Thereafter an average annual growth rate of 20 per cent will be sought in the second half of the strategic plan period to achieve an annual budget of US\$ 8 million by Year Ten. Growth will be achieved by the strategic targeting of donors to fund specific themes and areas within themes. Particular attention will be given to engaging nontraditional donors, especially philanthropic foundations and the private sector, through innovative public-private partnership arrangements. The Centre will also make a special effort to mobilize unrestricted resources to new high priority activities and to form the basis for future special grants and for rehabilitation or establishment of new infrastructure. The Centre will leverage the voice and influence of ECOWAS and its individual member states to obtain development funding from national governments as well as from the African Development Bank, IFAD and similar agencies. This funding should include both loans and grants made directly to member states for activities contributing to the strategic themes and grants directly to the Centre.

The Centre will adopt an adaptive monitoring and evaluation (M&E) approach that focuses on tracking learning and adjusting interventions based on lessons learned. A detailed M&E framework will be developed as each part of the strategy becomes operational.

This regional status of WALIC will be reflected in the Centre's governance structure. A one-tier governance structure comprising an independent broad-based and representative Board will be adopted. The Board will comprise not less than 12 and not more than 15 persons with due recognition of gender representation. These, selected on the basis of relevant expertise, will be drawn from the Government of The Gambia; civil society organizations (farmers' organizations, NGOs), regional (ECOWAS) and subregional (CORAF/WECARD) organizations, development partners and high level decision makers from countries in the region. The Chief Executive Officer of the Centre will be an ex-officio member and will serve as Secretary to the Board. A majority of Board members will be from West Africa and every effort will be made to ensure a balance of expertise relevant to the business of the Centre, including "hard" and "soft" sciences, organizational development, practical experience and local knowledge. Each member will serve a term of three years with the possibility of a single renewal.

The Chairman will be elected from among the members and will serve for three years, renewable once. Board business will be carried out by relevant committees and by the full Board, as determined by the members. The Board will meet once a year and will provide guidance to Centre management through Executive, Finance, Programme, Audit and Nominating Committees. Board members will be expected to be involved in networking on behalf of the Centre and the capacity and willingness to do this will be an important consideration in the selection of Board members and in its overall composition.

WALIC will mobilize a wide range of expertise to drive its agenda. Shared appointments and secondments will be explored with most partners. These need not require the physical relocation of staff from their duty stations as many assignments could be done from remote or home stations with occasional travel to the Centre. WALIC will provide training and mentoring opportunities for early career professionals interested in the issues covered by the Centre. The diverse multipartner platforms that will be critical to WALIC's programme will provide a suitable environment for nurturing talent in a range of disciplines.

The Director General will prepare an Annual Report on all operations, outputs and outcomes and an Annual Financial Statement with a balance sheet showing all income and expenditure broken down to Cost Centres. Both the Annual Report and the Annual Financial Statement will be put in the public domain and shared with stakeholders and investors as a contribution to improving the transparency of the Centre's operations and its financial management. Increased efficiency and reduced transaction costs will follow if the Centre's institutional investors are able to accept a common annual report and an audited financial statement and balance sheet rather than requiring separate reporting on their investments.

Several risks that WALIC might face in implementing this strategy have already been identified. Additional risks will be identified as the Centre advances through its operations. The risks that WALIC may potentially face in the early stages of its development fall within five major categories:

- **Effectiveness** including impact focus, organizational capacity and partnerships;
- **Efficiency** including restricting duplication, rationalizing costs of goods and services (“value for money”), ensuring sufficiency of resources and the adequacy as well as the functionality of implementation procedures and systems;
- **Financial integrity**;
- **Legal compliance** including stakeholder ownership, political support by ECOWAS, intellectual property rights and relationships and formal agreements with the Centre’s partners; and
- **Safety and security**.

WALIC will complete a detailed risk assessment and develop a risk management plan early in its development. The major steps in developing the plan will be to:

- Identify critical and non-critical risks;
- Document each risk in depth on a standard risk analysis form;
- Log all risks and identify their severity;
- Take action to reduce the likelihood of risks occurring; and
- Propose and undertake actions to reduce the likely impact should the risks become reality.

Critical success factors for WALIC are seen as:

- Responsiveness to the research and development agenda for food and agriculture;
- A focus on comparative advantage;
- Use of regional experts to complement those of WALIC;
- Create and sustain a broad range of interventions;
- Increase access to WALIC;
- Continue seeking adequate funding to ensure expansion; and
- Long term financial stability.

A classic cost-benefit analysis needs a whole (and complete) array of data from both sides of the equation. Such data do not exist for the themes and activities to be carried out by WALIC. A reasonable estimate of costs for such activities can be made but it is impossible, at this stage, to construct an estimate of benefits. Indeed, it may never be possible to calculate the latter with any degree of accuracy because not all the benefits, and probably a majority of them, are not physical outputs to which a unit value can be ascribed. There can be little doubt, however, that the totality

of benefits – physical and financial where they will arise, social and environmental – generated by WALIC activities will greatly outweigh the costs.

There are new scientific opportunities to address the priority themes identified in WALIC's Strategic Plan in consultation with partners and potential partners. There are also new investment opportunities by African and international partners that will help deliver innovations to increase the productivity and economic development of African agriculture and in particular of West African livestock production based on indigenous domestic animal genetic resources. WALIC offers its science, education, development and investment partners a first class shared research and development platform in the West Africa region. Livestock development in West Africa will be constrained only by the limits of imagination.

1. INTRODUCTION

1.1 Background

The International Trypanotolerance Centre (ITC) was instituted as, and remains an autonomous, non-profit research institution, established by an Act of Parliament of The Gambia in 1982. ITC was intended to serve the West African region, particularly the subhumid and humid zones, with an original main objective of research designed better to understand and improve the use of the indigenous N'Dama cattle breed in its traditional West African environment. ITC's mission has been to contribute to efforts to increase livestock productivity in the West African region through the optimal and sustainable exploitation of the gene-linked tolerance of some indigenous ruminant livestock types to several diseases for the welfare of human populations.

The strategic focus of ITC was to improve animal health and production via the formulation, implementation and introduction of sustainable socio-economic and environmentally acceptable integrated technology packages at producer level. ITC's main implementation partners in its research and development (R&D) agenda have been the National Agricultural Research Systems (NARS) in West Africa. The R&D agenda over the years has included: disease risk assessment and disease control strategies; crop-livestock integration, including feeding strategies; genetic improvement: pure- and cross-breeding for improved production; and socio-economic and policy aspects of livestock production. Capacity building has always been a key component of ITC programmes.

Throughout its history, ITC and its partners have developed technology packages relevant to crop-livestock systems in the tsetse-infested humid and sub-humid zones. The Centre has generated significant knowledge on the unique qualities of the hardy, environmentally adapted and disease-tolerant indigenous domestic animal genetic resources of West Africa and provided insights in to the way local communities can best manage and use these resources in a sustainable manner. ITC has established a sizeable – indeed, perhaps the only -- N'Dama breeding programme based on an open nucleus in West Africa (Figure 1.1). The Centre continues to disseminate these unique animal genetic resources to local communities as a contribution to meeting their immediate food security needs and to the alleviation of poverty concurrent with conserving them for future generations. The work of ITC has helped to place the trypanotolerance trait in livestock and the value of livestock that possess it on the global radar.



Figure 1.1: N'Dama nucleus herd at ITC station, Keneba

At its genesis ITC enjoyed the support of a broad range of development partners including the African Development Bank, the European Economic Community, the Rockefeller Foundation, the Belgian Government, the Norwegian Government, UNDP-FAO and the Government of The Gambia. Subsequently the Swiss and German Governments, the European Commission and the Canadian International Development Research Centre joined the initial “club” of supporters. Much of the funding, however, was limited to infrastructure development or was restricted to specific projects. Some did not renew support on conclusion of their projects: by 2006 it was clear that ITC’s donor base was shrinking and that the project-driven *modus operandi* was not a sustainable way forward. Other complicating factors were the infrequent review of ITC’s programmes and approaches to reflect current and emerging regional and global issues and poor management of the global and regional public goods and knowledge being generated by the Centre to demonstrate effectively their value to the development partners and their impact on stakeholders.

1.2 Rationale for the Business Plan

1.2.1 Overview

By 2011 the situation had become sufficiently critical for the ITC Council to propose steps to confront the issue of funding and the Centre’s future. The development of a new 10-year strategy is one of the measures being taken to deal with some of the problems. Part of this strategy is the decision in principle to transform the ITC into a West African Regional Centre of Excellence for livestock. Negotiations are underway about the Centre’s recognition and designation as a technical arm of the Economic Community of West African States (ECOWAS, Figure 1.2) for livestock development issues. The decision necessitates a reorientation of the institution to address issues of high priority to livestock in the region and to expand its regional reach.



Figure 1.2: The Geographic Space of WALIC

This document builds on the West Africa Regional Livestock Centre Strategic Plan 2013-2022 of January 2013 (Annex A) and on a supporting Operational Plan of September 2013 (Annex B). The Strategic Plan was developed following extensive participatory consultations in the ECOWAS region and is an initiative for a joint venture co-created by ITC and several other African stakeholders (Figure 1.3, Annex C).

Substantial financial support for the implementation of ITC was received from several donors in the first years of its development. Unfortunately since the mid 1990s and especially in the first decade of the twenty first century such support has fallen away.



Figure 1.3: Participants in consultation process to establish WALIC

The purpose of this Business Plan is to assist in the transformation of ITC as a research centre to WALIC as an innovation centre in order more rationally to come to terms with the rapidly changing external environment in Africa and internationally¹. It also provides an opportunity to reflect on the lessons learned in the past decade and contribute to a vision as to how these experiences can guide future strategy and directions. In constructing the Business Plan particular attention is focussed on some specific areas.

1.2.2 Demand side

- Stronger “demand-side analysis” with links to ECOWAS and CORAF/WECARD (Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (CORAF, West and Central African Council for Agricultural Research and Development (WECARD))
- Setting and strategic planning for agricultural development, food security and science and technology;
- New linkages and potential for alignment with more broadly based partners;
- Implications of signing a Memorandum of Understanding with various other institutions;
- Increasing opportunities for other African research and development organizations and universities.

1.2.3 Delivery of innovations

- Interface of WALIC with new partners for delivery of innovations in both the public and private sectors;
- Joint design with partners for pathways to impact for selected innovations with particular reference to other regional (and wider) programmes; and
- Engagement with both commercial and not-for-profit entities in the private sector through farming communities, civil society and local small and medium enterprises (SMEs) many of whom will be non-science partners for delivery of innovations.

1.2.4 Supply side: the business model

- Current use and future development of facilities, equipment and technologies including responsibility and accountability for the technical and scientific management of any shared research facilities and technology platforms available through the former ITC;
- Increased financial transparency of income and expenditure and basis of costs;

¹ The term “innovation centre” is often associated with the incubation of early-stage businesses, usually in association with universities or other institutions: the term is used here in a wider sense to include both business-oriented innovations and social and developmental innovations.

- Facilitate, as appropriate, affordable access to the research facilities by scientists coming from the national agricultural research systems (NARS) and universities within Africa; and
- Increasing operational efficiencies to reduce costs.

1.2.5 Governance, institutional and management arrangements

- Strengthened governance, institutional and management arrangements; possible and potential role of a new advisory panel;
- Oversight responsibilities by a new and independent broadly based Board of Trustees on fiscal and legal matters; and
- Clarity in responsibilities and accountability for the successful implementation of the Business Plan.

2. VISION AND MISSION

Vision: A vibrant West African livestock sector that boosts food security, contributes to the creation of wealth and safeguards the environment.

Technologies based on greater use of trypanotolerant and other indigenous West African livestock will improve agricultural productivity, increase incomes and improve food and nutritional security. WALIC contributes to this vision by providing access to enabling tools and the expertise of its staff to scientists, research and development institutions and universities to facilitate their evolution into major participants at the forefront of solving the priority challenges of food and nutritional security in Africa and, in so doing, to become globally important technological innovators and contributors to science and technology worldwide. This vision encompasses a new enabling environment for agricultural research and development in Africa that includes strong NARS, strong universities, a competitive private sector and empowered farmers who will all contribute to African food security and income generation.

Mission: Unlock the potential of West Africa's ruminant livestock sector through innovative partnerships and knowledge-based solutions that empower stakeholders along value chains.

WALIC will provide a centre of excellence in livestock research and development that will enable building of capacity and introduction of new technology, in Africa and for Africa, and will empower African institutions to harness innovations for regional impact. The mission will be achieved by contributions to enabling research and development that exploit the potential of the biosciences for increasing agricultural productivity and to improvements in food and nutritional safety and security, by contributing to the education and training of the next generation of African agricultural research leaders and scientists and by promoting the

development, delivery and adoption of innovative new technologies that are directed at overcoming key agricultural productivity constraints.

3. DEMAND SIDE ANALYSIS

3.1 Alignment with African Priorities in Food and Agriculture, Science, Technology and Capacity Development

3.1.1 Institutional environment and the setting of policy

Several Pan-African, regional and sub-regional organizations and commissions have responsibilities for the setting of policies and priorities in economic and agricultural development. These institutions facilitate high level discussions amongst countries and development partners to identify issues and enable setting of broad priority areas and principles for international engagement in African research and development programmes. They also intersect with government agencies including National Agricultural Research Systems (NARS) and universities in individual countries and increasingly with private sector companies and community organizations to provide an enabling environment for a thriving African food and agriculture sector.

The main objective of the WALIC strategic plan is to improve the productivity and competitiveness of indigenous ruminants using a variety of tools including genetic improvement and cross-breeding. This will be underpinned by appropriate policy support and other inputs such as access to information and capacity building (of all stakeholders from the very small producer with very few animals through to policy makers at government level). The overriding goal is to achieve this objective in a manner that benefits current and future generations whose exclusive reliance on these local animal genetic resources for food security and a decent livelihood is not a choice but a necessity. In this respect, the new strategy is well aligned with the programmes and initiatives of various global, continental, regional and sub-regional programmes with similar goals.

3.1.2 Global Plan of Action for Animal Genetic Resources (GPA-AGR)

The Global Plan of Action for Animal Genetic Resources (GPA-AGR) was developed under the leadership of and adopted by the FAO Commission on Genetic Resources for Food and Agriculture in 2007. It provides for the conservation and use of animal genetic resources at national, regional and global levels (FAO 2007)². The long term goal of GPA-AGR is to enhance the development and sustainable use of animal genetic resources in all relevant production systems as a key contribution to achieving sustainable development, eradication of

² FAO. 2007. Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration. Commission on Genetic Resources for Food and Agriculture, Food and Agriculture Organization of the United Nations: Rome.

poverty and adaptation to the effects of climate change. The Plan recommends the maintenance of a diversity of animal genetic resources in order to ensure the ability of the livestock sector to meet changing market demands and environmental circumstances including climate change and emerging diseases. It also highlights the fundamental rationale on which WALIC's strategy is built: farmers and pastoralists require animal breeds that meet local needs and that are resilient to a variety of biotic and abiotic factors including extreme climatic conditions, feed availability, parasites and other disease factors. The Global Plan comprises four strategic priority areas for action of which the second, on sustainable use and development of animal genetic resources, is of particular relevance to WALIC as it calls for investments in research, policy, capacity development and private sector participation in developing local livestock breeds that will benefit small scale and resource poor pastoralists and farmers and will contribute to the sustainable development of the poorest regions of a country.

3.1.3 African Union and the New Partnership for Africa's Development (AU-NEPAD)

AU/NEPAD recognizes its important role in Science and Technology (S&T) policy), including advocacy with African governments on the significance of investing national resources in S&T. A Comprehensive Plan of Action for Science and Technology has been published³ within which lies the new AU/NEPAD strategy for the African Biosciences Initiative (ABI). This has three strategic directions in support of biosciences across Africa:

- Capacity development;
- Infrastructure development; and
- Entrepreneurship.

In relation to ABI, AU/NEPAD intends to focus on its advocacy and oversight roles and delegate the implementation of specific programmes to its implementing partners which could include WALIC. Opportunities exist to increase cooperation and build synergies amongst the various biosciences networks operating throughout sub-Saharan Africa.

3.1.4 Inter-African Bureau for Animal Resources Strategic Plan, 2010-2014

In contextualizing its own strategic plan in 2010 AU-IBAR noted that in order to meet the targets of the Millennium Development Goals (MDGs) Africa needs to achieve drastic increases in productivity. It cautioned that while much of Africa's past animal production growth has been achieved by increasing numbers. An acceleration of total factor productivity growth, implying higher animal and labour productivity will, however, be required in the future to intensify production to meet the MDGs. This increase will be especially important among the smallholder producers who are the main targets identified in WALIC's strategic plan.

³ www.nepad.org

Some six complementary strategic programme areas resulted from the contextualization and analysis of global trends, constraints and opportunities. WALIC's strategic plan has strong link with AU-IBAR's Programme Area 2 (Enhancing Africa's capacity to conserve and sustainably use its animal resources and their natural resource base) and Programme Area 5 (Improving knowledge management in animal resources to facilitate informed and timely decision-making). Both organizations address similar objectives and are likely to achieve similar types of impact such as evidence-based policy formulation and increased competitiveness of the livestock sector.

3.1.5 Comprehensive Africa Agriculture Development Programme (CAADP)

AU and its NEPAD Planning and Coordinating Agency (NPCA) have developed a Coordinated Framework for Action on economic development from which flows the Comprehensive Africa Agriculture Development Programme (CAADP)⁴. This has four pillars:

- Extending the area under sustainable land management and reliable water control systems;
- Improving rural infrastructure and trade-related capacities for improved market access;
- Increasing food supply and reducing hunger; and
- Agricultural research, technology dissemination and adoption.

CAADP has set a target of an average of 6 per cent annual agricultural growth for African countries over the next 10 years. Under CAADP compacts and investment plans being entered into by national governments, individual governments agree to invest 10 per cent of their national budget into developing their agriculture sectors including increasing national support for agricultural research. The governments also agree to independent peer review of their agriculture sector plans and investments. A national CAADP compact signed with AU/NEPAD is a prerequisite for some multilateral and bilateral official development assistance (ODA) investments, including the Global Agricultural and Food Security Program (GAFSP) managed by the World Bank. Some 39 countries have initiated CAADP processes and 29 of these had signed CAADP compacts with AU/NEPAD by 31 December 2012.

3.1.6 Forum for Agricultural Research in Africa (FARA)

The Forum for Agricultural Research in Africa (FARA)⁵ is the technical arm of NEPAD. It is responsible for implementing CAADP Pillar 4 on agricultural research, technology dissemination and adoption on agricultural research. FARA has developed a "Framework for African Agricultural Productivity (FAAP): an integrated approach to research to lead to impact

⁴ www.nepad-caadp.net

⁵ www.fara-africa.org

on the ground”. FARA is developing a science strategy for agriculture in Africa as a means of guiding the research agenda emerging from the CAADP country investment plans.

3.1.7 Regional organizations for research and development

Several regional organizations support regional research and development programmes for identified priorities and develop solutions applicable to several countries. Among the regional organizations are the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) with headquarters in Uganda, the Centre for Agricultural Research and Development for Southern Africa (CARDESA) in South Africa and Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (CORAF, West and Central African Council for Agricultural Research and Development (WECARD) in which livestock are an important consideration (Figure 3.1) and which has its main offices in Senegal. Major variations in poverty levels and food insecurity within and among countries need to be taken into account in developing targeted strategies to reduce poverty and improve food security.

Figure 3.1:
Selection of
literature produced
by CORAF – note
emphasis on
livestock
production



ASARECA and the International Food Policy Research Institute (IFPRI) have undertaken a study entitled “Strategic priorities for agricultural development in eastern and central Africa”. The regional priorities identified were staple food crops (cereals, banana and root crops), livestock products, fruit and vegetables, and oilseeds. Milk was identified as the single most important commodity for investments to induce growth in agriculture and to stimulate gross domestic product (GDP) growth in East and Central Africa. The study noted that regional and national priorities coincide for some countries (Kenya, Tanzania and Uganda) but not for others

(Ethiopia, Sudan and Rwanda) whose agroecologies are more distinct from those of neighbouring countries. ASARECA has developed programme strategies and priorities for the research programmes it supports including biotechnology and biodiversity, staple crops, non-staple crops and livestock. There are opportunities for expanding joint programmes development by ASARECA and the countries of its region.

Several regional CORAF and CIRDES) and international organizations (ILRI) have implemented a number of multicountry livestock projects in the ECOWAS geographic area. One such is the *Projet Régional de Gestion Durable du Bétail Endémique en Afrique de l'Ouest* (PROGEBE, Sustainable management of endemic ruminant livestock of West Africa). PROGEBE is funded by the African Development Bank (AfDB) and the Global Environment Facility (GEF) with other contributions by the governments of member countries and other partners (ITC, UNOPS, ILRI, FAO and CIRDES). It is hosted by ITC at its campus at Kerr Serigne but is implemented in The Gambia, Senegal, Guinea and Mali. A second regional project is the *Introgression des gènes du bovin Zébu sahélien dans les populations trypanotolérantes *Bos taurus*: stratégies pour une gestion durable des races bovines trypanotolérantes en Afrique de l'Ouest* (Introgression of Sahelian zebu genes into *Bos taurus* trypanotolerant cattle: strategies for sustainable management of trypanotolerant breeds in West Africa), coordinated by CORAF/WECARD through the Institut de l'Environnement et de Recherches Agricoles (INERA) Burkina Faso and implemented in Benin, Burkina Faso and Mali.

3.2 Priority Themes Emerging from Demand Side Analysis

No simple set of priorities exists for the role of biosciences in advancing African agriculture. Several priority themes are, however, emerging from the various Pan African and regional organizations and national governments and demand-side analysis. These themes include:

- Food and nutritional safety and security;
- Income generation for small scale producers;
- Adaptation to climate change;
- Environmental sustainability including conservation and use of biodiversity; and
- Increasing regional and international trade.

The themes are amenable to applications of modern biosciences. WALIC could have the scientific and technical capabilities to host strategic research programmes that would contribute to outcomes and the impact of these themes (Figure 3.2).

3.2.1 Food and nutritional security and safety

Food security depends on improving productivity of both crops and livestock (including reducing post-harvest losses), enabling access to food and improving its nutritional quality and better use of food. The biosciences can contribute to food security through:

- Improving crop productivity by accelerated plant breeding based on marker assisted selection to develop new varieties that meet market demand;
- Improving livestock productivity by developing better breeds, improving their health and providing them with nutritious feed (Figure 3.3); and
- Reducing postharvest food wastage (normally at least 50 per cent is lost due to postharvest contamination that makes it unfit for human or animal consumption).

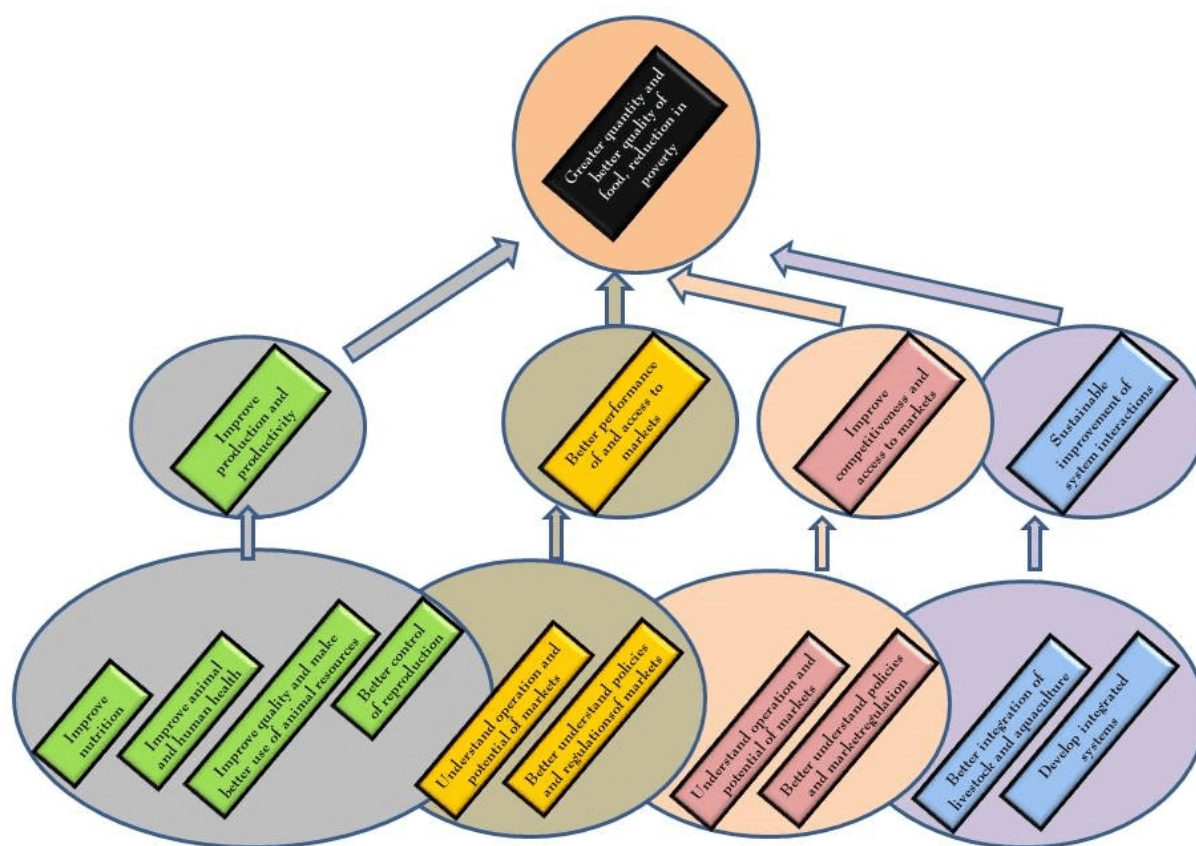


Figure 3.2: Objective tree for sustainable livestock production



Figure 3.3: N'Dama heifers on poor quality grazing

Increasing demand for better quality food and more diverse diets as people move out of poverty is exemplified by rising demand for meat and livestock products in East and Southeast Asia. A similar trend is likely to emerge in Africa as incomes increase. Rising demand for diverse and better quality food coupled to the rising world population means that global food production must rise by 70 per cent by 2050.

3.2.2 Increasing the incomes of small scale producers

Linkages between sectoral and overall economic growth in Africa are stronger for agriculture than for other sectors. About 65 per cent of the continent's total labour force is employed in agriculture which contributes about 32 per cent to continental GDP⁶. Nutrition and health improve when food security is improved which in turn promotes labour productivity. Efforts to reduce poverty must therefore focus on agriculture.

3.2.3 Adaptation to climate change

Adapting to climate change is increasingly important as a driver of change for agriculture. Research can help in the development of adaptation strategies including development of more resilient animal breeds able to withstand higher temperatures and lower rainfall. Developing effective means to control diseases as they spread into new areas as a result of climate change is a further challenge for the biosciences.

⁶ International Food Policy Research Institute. 2012. Global Food Policy Report. IFPRI: Washington DC,

3.2.4 Environmental sustainability

Competition for the use of land and water within the agriculture sector between food, feed and fuel in addition to competition between agricultural, mining and energy interests is increasing. An example of the application of biosciences to environmental sustainability is the use of modern genotyping techniques to characterize crop, microbial and animal diversity. This is linked to the use of sophisticated “biobanking” techniques to conserve biodiversity within food and feed crops and their wild relatives as well as for livestock and microbial species.

3.2.5 Increasing regional and international trade

A constraint to increasing participation of African farmers in regional and international markets is the risk of transferring pests and diseases from country to country. Rapid diagnostics that facilitates certification of the safety of agricultural exports is an example of a valuable biosciences application.

3.3 Evolving Livestock Environment in ECOWAS

Recognition of the need for technological innovation for sustainable development based on the biosciences is being increasingly recognized. This is linked to substantial changes in the external science environment in recent years, including:

- Increasing numbers of trained scientists with research and teaching appointments in NARS and universities;
- Increasing demand for undergraduate and postgraduate training in and for Africa; increasing interest and investments in modern biotechnology as a potential contributor to food security and a driver of income generation⁷; and
- Increasing progress in developing the enabling environment with supportive policies in intellectual property (IP) management and biosafety regulations in Ghana, Nigeria, Malawi and Uganda⁸.

3.4 Alignment with ECOWAS Concerns for Food and Agriculture

3.4.1 Regional policy

The regional agricultural policy adopted by the ECOWAS Commission sets out a vision for “a modern and sustainable agriculture based on effective and efficient family farms and the promotion of agricultural enterprises through the involvement of the private sector”. Once

⁷ Juma C and Serageldin I. 2007. Freedom to Innovate - Biotechnology in Africa’s Development: a report of the High Level African Panel on Modern Biotechnology. African Union (AU) and New Partnership for Africa’s Development (NEPAD): Addis Ababa and Pretoria

⁸ Forum for Agricultural Research in Africa. 2011. Status of Biotechnology and Biosafety in sub-Saharan Africa: A FARA 2009 Study Report. FARA Secretariat: Accra.

productivity and competitiveness on the intra-community and international markets are achieved, the policy should be able to guarantee food security and secure decent incomes for agricultural workers”. The general objective of the policy is to “contribute in a sustainable way to meeting the food needs of the population, to economic and social development, to the reduction of poverty in the Member States, and thus to reduce existing inequalities among territories, zones and nations”. This global objective is broken down into seven specific ones focussing on:

- Food security for people in the region;
- Reducing food dependence and achieving food sovereignty;
- Involving producers in markets;
- Creating jobs with guaranteed incomes in order to improve living conditions and services in rural areas;
- Intensifying production systems in a sustainable manner;
- Reducing economic vulnerability in West Africa by limiting instability and insecurity; and
 - Adopting appropriate funding mechanisms.

The objectives thus affirm the principle of food sovereignty primarily through high regional integration and appropriate levels of border protection differentiated for the specific needs of each supply chain.

3.4.2 The ECOWAS Strategic Action Plan for Development and Transformation of the livestock sector

The Regional Agricultural Policy for West Africa (ECOWAP) is a response to agricultural and food issues in West Africa. It is the outcome of detailed assessments of the agricultural sector across the region including strengths and weaknesses, related food security issues, food crises and other challenges confronting the sector. These assessments were the basis of the formulation of a comprehensive strategy to overcome these weaknesses, challenges and crises. One thematic area covered by this strategy deals with increasing the productivity and competitiveness of West African agriculture and is highly complementary with WALIC’s strategic aims.

Following the adoption of ECOWAP and its harmonization with NEPAD’s agricultural programme in 2005 the ECOWAS Commission was mandated to develop an action plan for 2011-2020 for the development and transformation of livestock farming in the region. Its objective is to accomplish economic transformation of the meat and dairy sectors to achieve -- without causing or resulting in damage to natural resources -- sustained food security, reduced poverty and provision of a reasonable income to the livestock sector.

Four strategic components were developed to address this objective:

- Creating an environment conducive to sustainable development of the livestock, meat and dairy sectors

- Providing security for transnational movements of livestock and their products and prevention of conflicts;
- Improving the livestock production sector; and
- Promoting the livestock, meat and dairy sectors.

WALIC's own strategic plan is closely aligned with the last component and especially with its subcomponent on the improved performance of local breeds. ECOWAS made a strong case for implementing this subcomponent through the use of effective genetic improvement strategies to increase the production and productivity of local animals while ensuring conservation of their genetic biodiversity. Two activities identified in the ECOWAS plan that are favoured candidates for regional collaboration are provision of institutional support for capacity development for scientific studies, conservation, distribution, use and development of animal genetic resources, and the establishment of a West African network of centres for the study and management of animal genetic resources. Given the thrust of WALIC's strategy it is clear that it will contribute to and benefit from the ECOWAS-led regional initiatives (Table 3.1).

Table 3.1: ECOWAS Strategic Action Plan

Component	Subcomponent	Activities
1. Improved productivity and competitiveness of the livestock, meat and dairy sectors	1.2. Improved livestock feed security	Crop-livestock integration
	1.3 Improved performance of local livestock breeds	Set up regional banks for conservation and distribution of genetic resources
2. Structure the animal production sector	2.1 Strengthened relevant professional organizations	Strengthen institutional framework and organizational capacity of stakeholders in the livestock, meat and milk sectors.
	2.3 Promotion of processing and adding value to animal products	Improve processing and packaging systems for animal products
3. Create an environment favourable to the development of the livestock, meat and milk sectors	3.1 Promotion of science, technology, research and veterinary training	Support the updating of animal production parameters and improve and expand technologies and best practices
	3.3 Promotion of women and other vulnerable groups	Identify and incorporate gender into planning and execution of policies and programmes

3.4.3 The CORAF/WECARD Strategic Plan, 2007-2016

CORAF/WECARD coordinates all agricultural research for development activities in both West and Central Africa. Its current strategic plan (2007-2016) is built around the concept of agricultural innovation systems. This paradigm advocates a shift from the conventional pipeline approach of technology development and dissemination to one of co-production and use of technologies by stakeholders with common goals.

The strong ties between the strategic plans of the two institutions reside solidly in this paradigm shift. Stakeholders and partners of ITC recommended that WALIC become an innovation centre that does research but takes that extra step to ensure that its outputs are put to use by embracing the innovation system approach. Hence, the decision was taken for WALIC to function as a convener, catalyst, facilitator and partnership and knowledge broker and to serve as an advocate for more enabling policies and institutions that bring relevant stakeholders together to tackle problems of common interest. The strong linkages become even more evident in the context of CORAF's livestock, fisheries and aquaculture programme which seeks to achieve certain results:

- Appropriate technologies and innovations developed for livestock, fisheries and aquaculture;
- Strategic decision making options for policy, institutions and markets identified and development supported for livestock, fisheries and aquaculture; and
- Demand for agricultural knowledge relating to livestock, fisheries and aquaculture from targeted clients facilitated and met.

These results areas are similar to those targeted by WALIC's strategic plan which is likely to lead to an ever stronger relationship between CORAF/WECARD and the Centre.

3.4.4 National Agricultural Investment Plans (NAIPs)

The National Agricultural Investment Plans (NAIP) developed by Ghana, Senegal, Gambia, Nigeria and Guinea, Senegal and Mali in fulfilment of the requirements for the CAADP compact and the Regional Agricultural Investment Plan (RAIP) of ECOWAS⁹ were examined and analysed for content especially with regard to the livestock sector. A number of the thematic programme areas in the WALIC's strategic plan were discernible in many of the NAIPs. Among these are the improvement of productivity through genetic modification and management interventions, the development of new products through adding value to the primary product (Figure 3.4) support to producers' organizations through capacity building and enhanced internal institutional coordination as well as partnerships with external technical and development partners.

⁹ Benkahla A and Dièye PN. 2010. Analyse des plans d'investissements agricoles: les cas du Sénégal, du Mali et de la CEDEAO. Initiative Prospective Agricole et Rurale.



Figure 3.4: Simple value added products locally manufactured from the primary product in The Gambia and Ghana

3.4.5 Endnote

The foregoing sections amply demonstrate that WALIC's strategy is well aligned with those of the various continental and regional institutions that have interests in livestock development. The common thread is a desire to improve the contribution of a livestock sector built on local resources to the overall national economic development and livelihood of the population. In other words WALIC is in good company and, through an effective implementation of its new strategy, will contribute to common regional goals.

4 Delivery of Innovations

4.1 Innovation Systems

Africa is facing increasing demand for innovation systems and new partnerships to ensure that research results are transferred to producers. This opens new opportunities for public-private partnerships to develop pathways to ensure innovations arising from research conducted by scientists and institutions are put into practice. More attention will be paid to the design of product incubation and innovation pathways and thereby bring an extra dimension of synergy to contribute more directly to impact. This will provide a multiplying effect for the efforts of scientists to play a major role in helping African countries to achieve the Millennium Development Goals (MDGs). A more productive and profitable agricultural sector is critical to the successful attainment of the MDGs in Africa. This Business Plan lays out how WALIC will contribute to the current efforts of countries in the ECOWAS area in achieving these goals and builds on proven innovation systems already delivered by, for example, CORAF and PROGEBE.

4.2 Increasing Role of Stakeholders and the Private Sector

The institutional arrangements for the supply of research and development services, including the balance between public and private sector providers, will be increasingly influenced by private sector investments in food and agriculture. The commercial private sector includes local small and medium enterprises and international businesses. Many civil society organizations, farmer cooperatives and philanthropic organizations are also active in agricultural development as, to some extent, are consumer organizations. These trends towards more commercial and market-led food and agriculture will identify potential new partners for research and new opportunities for public-private partnerships. Private sector partners will be essential when developing specific impact pathways for new products to accelerate the delivery of bioscience based innovations in Africa.

Since the demise of heavily subsidized public input delivery systems and agricultural development banks many small livestock keepers have been left with inadequate and costly access to basic services. The private sector has taken up part of the slack but has a bias towards servicing larger commercial farms and those located in regions favoured by good agroclimatic conditions, infrastructure and market access. In recent years there have been innovations in the development of public-private partnerships (e.g. loan guarantees to private banks that lend to smallholder farmers), farmer cooperatives, NGO involvement in social enterprise (e.g. as franchised suppliers of veterinary services), credit and training programmes for small businesses that deliver inputs and services (e.g. the Alliance for a Green Revolution in Africa (AGRA)) and the use of smart subsidies. Most of these experiments have focussed on crop agriculture but WALIC will explore models that can be applied or adapted for livestock in the West African

setting and can be scaled up to achieve the levels of support needed by large numbers of livestock keepers.

Interventions will seek to enhance the capacities of livestock producers as well as the input and advisory services providers and professionals in the value chain. The focus will be on identifying promising models and facilitating platforms to create arrangements or partnerships to pursue business opportunities. Franchised agro-vet models such as those being tested in East Africa (e.g. SIDAI¹⁰) will be explored for delivery of feed, animal health, breeding and other advisory services. A critical capacity development focus will be on innovative value chain financing and enhancing the business acumen of chain participants.

4.3 Implementation of the Strategy

The WALIC Strategic Plan will be implemented in four phases (Figure 4.1)

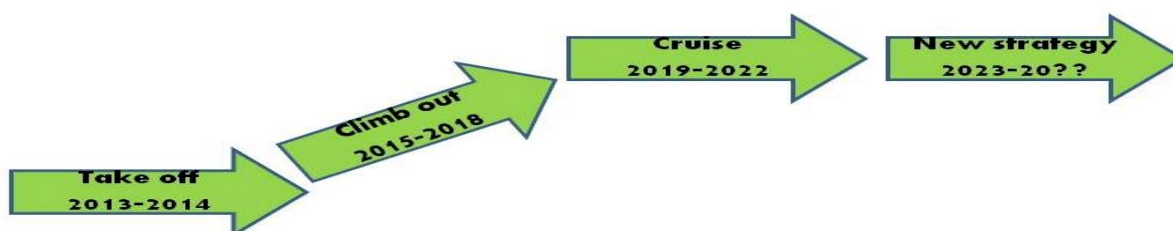


Figure 4.1: The four phases of WALIC

4.3.1 Take off (2013-2014)

Donors, policymakers (including local, national and regional policy bodies) and direct stakeholders in the livestock value chain -- input providers, farmers, breeders, extension services, dealers and consumers -- are all priority targets for communications by WALIC. Ensuring development of a sustainable livestock policy in the West African region and ensuring that the new Centre is on a sound financial footing are two of the critical early tasks. These target audiences will represent a wide range of interests, knowledge and educational levels and it will be important that communications products are carefully tailored to meet the various needs of the intended audiences in terms of subject matter, format and degree of sophistication. Materials may need to be translated into more languages than previously in order to reach across the region.

A solid foundation of committed stakeholders and partners who have been made aware of the Centre's Vision and Mission and who will work with the Centre in the succeeding Phases of implementation will be constructed. Activities will include:

- Development of communication tools as an aid to the next Phase; and

¹⁰ www.sidai.com

- Using the tools to advocate for WALIC and inform and create awareness in potential stakeholders and partners and convince them they are important in contributing to the achievement of the WALIC goals.

4.3.2 Climb out (2015-2018)

A gradually accelerating phase of programmes and projects implementation will include recruitment of a critical mass of core staff to start the implementation; purchase or rehabilitation of required equipment and tools. Identification and empowerment of institutional partners will proceed concurrently so that they can take over implementation activities in which they have comparative advantages. Production of a first set of outputs will attract more partners and stakeholders to the WALIC consortium and the search for increased and committed long term funding will continue.

4.3.3 Cruise (2019-2022)

A full complement of staff will be occupied in implementation of several programmes and projects in each of the four strategic themes. These staff will also undertake a review of the state of the implementation and effectiveness of the Strategy to date with a view to designing a new Strategy for the future.

4.3.4 New strategy (2023-20??)

Reflections from the closing stages of the Cruise Phase and the lessons learned during implementation of the first Strategic Plan will feed into the development of a New Strategic Plan for an, as yet unspecified, duration.

5. THE BUSINESS MODEL

5.1 Principles

Changing socioeconomic conditions in West Africa and farther afield coupled to a rapidly growing human population with aspirations to a better quality of life will ensure that more consumers will demand more red meat and milk as part of their daily diet while natural resources such as land become scarcer. Trypanotolerant livestock have been shown to be the best genetics in areas infested by the tsetse fly to produce more meat and milk under local environmental conditions including low quality feed, disease challenge and minimal management. The inherent qualities of trypanotolerant livestock have a major role in a rapidly changing world. It is important, however, that other indigenous livestock in WALIC's area of operations be conserved and exploited to the fullest extent possible and these animals have been included in the new WALIC Strategy. The values governing WALIC are that it must be:

- **Accessible** as a shared research and development platform for researchers and developers and all other stakeholders in the ECOWAS region and beyond;
- **Affordable** in that the benefits generate must exceed the costs incurred;
- **Financially secure** in the long term based on commitments from a broad range of “investors” including donor institutions and other contributors (governments, private sector) not only for operational but also for replacement costs for such capital items such as vehicles, laboratory equipment and other items;
- **Magnanimous** in sharing success with stakeholders from government bodies through to small scale producers and “give credit where credit is due”; and
- **Totally transparent** in all its activities and actions.

The direct principles that will guide WALIC’s engagement with partners and stakeholders are that:

- **Innovative partnerships** will be achieved through proactive brokerage and facilitation of multistakeholder platforms to address fundamental challenges;
- **Stakeholder empowerment** results in strength in numbers and acknowledges that information is power, knowledge is strength and competency is important;
- **Balance** must be maintained between private and regional and international public goods;
- **Commercial drive** will achieve financially sustainable solutions tempered by recognition that the private sector is often weak and that the Centre has public good objectives (such as ensuring continued availability of useful and potentially useful traits in native breeds);
- **Environmental sustainability** that succeeds today will not compromise tomorrow; and
- **A value chain** approach is adopted with a deliberate focus on women and youth.

5.2 Evolution of the Model

In mythological terms WALIC is a Phoenix arising out of the ashes of ITC. The establishment of WALIC as an innovation centre that builds on the legacy of ITC but has its own clear identity and rationale presents a number of challenges. Many of these, however can be overcome through a tightly focussed branding campaign. Such a campaign must start by identifying key messages that clearly communicate what the Centre aims to accomplish and why it is important that it should do so. These messages must be reflected in all of WALIC’s communications efforts but they will evolve and expand as the Centre becomes firmly established and its programmes grow. Some initial indicative key messages might be:

- WALIC seeks to improve and conserve native West African breeds of cattle, sheep and goats as part of the processes of increasing food security, reducing poverty and protecting extremely important genetic resources;
- Improving the productivity of native livestock breeds will increase their contribution to the economy of West Africa and the welfare of its people;
- These native livestock are threatened with indiscriminate gene dilution and need to be conserved as repositories of incalculable genetic diversity that is vital for addressing global challenges (climate change, pressure on land resources and transboundary diseases); and
- As a not-for-profit research and development entity WALIC works in equal partnership with the livestock sector throughout the ECOWAS region and in taking over from its predecessor it has a new vision and a long term strategy that has been developed through a consultation and collaborative process with its partners and stakeholders.

5.3 Primary Clients and Partners

The primary clients of WALIC are the millions of small scale livestock producers, including urban and landless farmers (Figure 5.1) located in the ECOWAS countries. Research and development activities are directed to improving the performance of their cattle, sheep and goats and via that path improving their food security and increasing their incomes.



Figure 5.1: Sheep fattening in a landless system at Ngor, Senegal

The Centre will be small relative to its mandate and thus will place strong emphasis and reliance on strategic partnerships to deliver its agenda. A large part of the programme relates to catalysing partnerships as a strategic deliverable and WALIC will formalize these relationships with a Memorandum of Understanding (MoU) – some of which are under way– and Letters of

Agreement (LoA). The Centre will be selective in its partner choice and innovative in developing and managing partnerships and alliances to leverage expertise and other resources while maintaining meaningful and productive partner relationships. Excellence in partnership development and management across all its activities is a primary aim of the Centre. WALIC will develop staff and stakeholder skills in partnership management in a proactive manner. Board members will be expected to be involved in networking on behalf of the Centre and the capacity and willingness to do this will be an important consideration in the selection of Board members and in its overall composition.

5.4 The Business Model 2013-2022

Strategic analyses of the current situation, extensive stakeholder consultations and consideration of the appropriate mandate of a livestock technical arm of ECOWAS led to the identification of four strategic thematic areas that will form the focus of WALIC's work over the next ten years:

- Genetic improvement, conservation and better use of West African ruminant livestock;
- Capacity development along livestock value chains;
- Knowledge management; and
- Advocacy and partnership brokerage¹¹

5.4.1 Genetic improvement and better use

Goal

Catalyse and facilitate regional coordinated actions to conserve indigenous ruminant livestock genetic resources and improve their use in response to changing production and market circumstances

5.4.1.1 Context

The legendary disease tolerance of N'Dama cattle, Djallonké sheep and the West African Dwarf goat (WAD) is well documented in the scientific literature. The remarkable adaptation to dry and hot conditions by several Sahelian livestock breeds is also well recognized. Little more than modest efforts have been made, however, to improve these breeds and reverse their loss. Climate change, with its likely differential impacts on different ecozones, presents new challenges to livestock production particularly, perhaps in respect of shifting disease challenges. National efforts on conservation and use of livestock resources have been largely less than optimal and there has been little coordination or collaboration at the regional level.

¹¹ The sections that follow are abridged from more fully detailed discussions in the WALIC Strategic Plan (see additional reading list).

Given the regional nature of many issues WALIC, under its new mandate, should be in a position to use its intergovernmental convening and advocacy roles to catalyse coordinated regional actions with ECOWAS.

5.4.1.2 Main challenges

The main challenges to this theme are:

- Effective raising of awareness among stakeholders regarding the urgent need to pay attention to loss of livestock diversity;
- Gathering and making available in systematic and accessible formats data, information and knowledge and to ensure these are used to inform the livestock R&D agenda;
- Motivating national interests to create regional momentum, capacity and coordination mechanisms to harness the potential for livestock development that builds on existing human and physical capacities;
- Identifying and harnessing the potential of global livestock resources for the benefit of specific systems in West Africa; and
- Resolving tensions between conservation of indigenous livestock resources and the need to improve livestock production and productivity to meet the needs of today.

5.4.1.3 Opportunities

Building on previous work and experience

WALIC will build on work done by ITC on its open nucleus scheme for the genetic improvement of trypanotolerant livestock as well as its own and other initiatives (for example in Ghana) to test crossbreeding for meat and milk production in the region (Figure 5.2).



Figure 5.2: Crossbred Sanga-Holstein heifers at the Amrahia dairy farm of the Ghana Department of Livestock Services

Technology availability

There are opportunities for significant progress in genetic interventions through partnerships with organizations in the forefront of genomics and bioinformatics such as application of selective breeding programmes that take advantage of new tools such as genomic selection.

Recognition of the need for system resilience

Increased interest is being shown in the development of approaches to greater resilience to drought and enhances food security for pastoral communities. Strategic intensification of livestock in certain areas is inevitable if the production levels necessary to meet anticipated demand are to be achieved. The question is how this can be done without compromising system resilience and increasing the risk of loss of critical genetic diversity.

5.4.1.4 Key results

West African livestock production is characterized by diversity in the production environment – from low potential areas with serious biophysical constraints to medium and high potential areas where these constraints are reduced. In the former areas where endemic stock is kept for meat

and milk the objective will be to gradually improve productivity without losing environmental adaptation. WALIC will help to define breeding goals and strategies for livestock improvement. In the latter areas, especially peri-urban systems or wet areas where disease control opportunities exist, the objective will be to improve productivity via use of medium to high genetics based on indigenous breeds crossed with selected exotic breeds and to implement strategies to improve delivery of feed, health, breeding and other inputs and services.

Development of a West African strategy and implementation framework for conservation and use of indigenous stock

The current situation will be analysed in order to identify potential multi-country actions that take account of local contexts. This will build on lessons learned from PROGEBE and other initiatives. The resulting framework will enumerate options, tools and approaches for *in situ* and *ex situ* conservation and use building on ITC and other work and analyses of breeding schemes undertaken in the region.

Enhancing the use of indigenous livestock resources

A key strategy is to develop approaches that enhance the use of indigenous resources in a diverse range of production systems. WALIC will work with regional organizations to develop pilot projects, for example to develop guidelines and syntheses of best practices, based on work by ITC, PROGEBE and other initiatives. Attention will be given to developing or adapting options for genetic improvement building on lessons learned from the open nucleus breeding pilots of ITC and making these options widely available in the region. The formation of breed societies will be facilitated as will *in situ* and *ex situ* conservation of endangered resources.

International evaluation of strategically selected breeds and crossbreeds

Diverse genetic options will be explored for usefulness in the range of production systems emerging in response to market opportunities. WALIC will develop a framework for international comparisons of promising breeds and crossbreeds from various parts of the world based on performance and data on production systems. Comparisons will include genotypes that have shown promise outside Africa as well as those that have performed well on the continent. Comparative genome level characterization of indigenous and selected tropical breeds will support this work and will be undertaken in collaboration with partner laboratories inside and outside Africa.

Development of a multilingual livestock genetic resources database

Activities will include collection, analysis, archiving and making information available in English, French and Portuguese on West Africa's livestock resources including genetic and phenotypic data and information on production systems.

5.4.2 Value chain capacity development

Goal

Strengthen livestock keepers and public and private sector abilities to perform their core roles to facilitate market-oriented livestock development

5.4.2.1 Context

Gaps in institutional leadership and management and in the skills and knowledge needed to facilitate effective uptake of available technologies are among the biggest challenge for livestock development. The AU-NEPAD Capacity Development Strategic Framework (CDSF)¹² explicitly recognizes the capacity challenge of the continent and identifies the need to equip private and public sector personnel with the competence to do their jobs. There are specific challenges from lack of technical capacity in animal genetic resources, value chain analysis and development as well as institutional leadership at community, producer and market organization levels. A major thrust of this theme will be to facilitate capacity development in institutions that drive the regional livestock agenda, especially in smaller countries. Another challenge is the lack of youth recruitment as they increasingly move to cities in search of better opportunities.

The main objective of this theme is to enhance the capacity of institutions, individual farmers and farmer organizations and the public and private sectors whose interventions will increase the probability of wealth creation and food and nutrition security from livestock.

5.4.2.2 Main challenges

Challenges that will underpin the capacity development thrust under this theme include:

- Building capacity to create productive links among small scale rural producers, value-adding processors, buyers in growing urban markets and suppliers of critical inputs;
- Helping small producers to work together in effective associations or other collectives that are accountable to members, operate transparently and seek to achieve economies of scale in dealings with input suppliers and livestock and livestock product buyers;
- Providing critical information (product specifications, market prices) and other business services to rural livestock keepers to assist them in informed decision making;
- Enabling rural livestock keepers to understand and satisfy the product, process or delivery standards demanded by increasingly sophisticated markets;
- Diversifying and raising levels of knowledge and skills in livestock production and commodity processing that adds value to products;

¹² AU-NEPAD, 2010.

- Providing financial services to producers to enable them to invest in improving and expanding their enterprises or to diversify out of livestock into alternative livelihoods;
- Providing more helpful livestock extension support that is responsive to rapidly changing biophysical, social and market contexts;
- Improving leadership and management of institutions involved in livestock R&D to make them more proactive, responsive, solution-driven and success-hungry operations; and
- Creating interest among today's youth in entering livestock value chains.

5.4.2.3 Opportunities

Youth and agriculture

Youth is the future that will drive agriculture. Their conviction that agriculture is a low paying arduous career and far less desirable than one where success is about creativity and innovation has to be changed. Tackling this challenge at source will require attention being paid to school curricula and giving adequate exposure to the realities of life in agriculture and livestock.

Innovative partnerships, entrepreneurship and business skills development

Market intermediaries can be important in stimulating entrepreneurship among poor livestock keepers. From simple trading to complex relations in contract farming there are opportunities along the value chain to engage new livestock keepers and to equip career keepers to respond better to changing production and market circumstances. This can translate into advisory service inputs, technical assistance, credit and business skills development and has been shown to catalyse entrepreneurship among crop farmers. Innovative partnerships and business models such as with-profit social enterprises and contract farming relationships are also developing.

Public sector readiness for change

The situation is still far from satisfactory but there is evidence that many West African governments are about to move from lip service to action. The need for greater public sector investment in agriculture is now recognized and some governments have honoured their commitment to the 2003 Maputo Declaration committing them to allocating 10 per cent of the national budget to agriculture and rural development within five years. Without appropriate advice investments in capacity building could go to traditional training courses which have little hope of unlocking systemic institutional challenges. An opportunity exists for WALIC to develop innovative capacity building approaches targeting broader institutional transformation, supported by a new cadre of leaders and managers via change management programmes focussing on key institutions.

Building on existing institutions

Farmers', women's and youth organizations are active throughout West Africa. Many NGOs and CBOs are also active in livestock development (Figure 5.3) and small businesses are emerging that provide a range of services along the livestock value chain and provide entry points for intervention.

Figure 5.3: Woman beneficiary in a Heifer International project in Sierra Leone



5.4.2.4 Key results

Capacity is not only about technical and business skills but also incentives, attitudes and institutional governance. It involves institutional changes to farmers' organizations, NGOs and public and private sector institutions so that they may better embrace solution driven approaches and adopt systems that demand, mentor and reward innovation. Capacity building for research and extension personnel will help them to better engage producers and service providers in adopting more facilitative engagement approaches than traditional top down technology generation and promotion.

This thematic area will address system capacity constraints (individual training events have not worked well) and will prioritize transformational capacities with an accompanying adjustment of mind set to change readiness. The approach will not provide capacity development services from the top down but will focus on learning by doing. Communities, local governments, farmers' organizations and the private sector will be involved in system changing capacity development focussed on systemic challenges in their institutions or value chains. The approach will include diagnostic processes to help stakeholders identify their capacity needs and to help R&D institutions to become accountable to their clients.

Not all livestock keepers will make the transition to successful commercial enterprises. Some will not easily survive in the new market driven livestock economies, some will need continued support and others will need help with an "exit strategy" to other livelihood activities.

Capacity development interventions in this thematic area will be backed by a focus on improving system functionality of the individual institutions and livestock value chains. Development of leadership and management of institutions involved in livestock R&D to make them more

proactive and responsive will be a key focus and will invest in empowering stakeholders as agents of transformation in their own right.

Facilitating economies of scale and links to higher value markets

Low volumes, variable quality, seasonality, high transaction costs, poor market information and limited ability to meet the quality standards of specific markets are major bottlenecks for smallholder producers. Local market outlets do exist in West Africa but the best business opportunities often lie with livestock keepers who can organize themselves to exploit economies of scale. Promising alternatives include contract farming with large farms or marketing and processing agents, voluntary producer groups and marketing cooperatives. Capacity building and organization of producer groups can help livestock keepers and input and other service suppliers adjust to more commercial and competitive business environments and gain access to more demanding markets.

Improving smallholder access to inputs, advisory services and finance

The demise of heavily subsidized public input delivery systems and agricultural development banks has left many small producers with inadequate and costly access to basic services. The private sector has occupied the vacant niche in part but has a bias towards servicing larger commercial farms and those in regions favoured by good agro-climatic conditions, infrastructure and market access. Recent years have seen innovations – mostly in crop agriculture – in the development of public-private partnerships such as loan guarantees to private banks that lend to smallholders, farmer cooperatives, NGO involvement in social enterprise as, for example, franchised suppliers of veterinary services, credit and training programmes for small businesses that deliver inputs and services and the use of smart subsidies. WALIC will explore models that can be applied or adapted for livestock and can be scaled up to achieve the support needed by large numbers of livestock keepers. Interventions will seek to enhance the capacities of producers as well as the input and advisory services providers and professionals in the value chain. The focus will be on identifying promising models and facilitating platforms to create arrangements or partnerships to pursue business opportunities. A critical capacity development focus will be innovative financing and enhancing business capacity in the chain.

Attracting youth and new entrants to livestock farming as a business

Providing attractive new business opportunities would help the young to enter farming but it is still necessary to determine the kinds of schooling, specialized training and support (young farmers' clubs, vocational training) that will be needed. School curricula are often biased against agriculture and influence youth to seek other professions. WALIC will form partnerships with educators and organizations such as ANAFE (African Network for Agriculture, Agroforestry and Natural Resources Education)¹³ to face the youth and agriculture challenge. The aim is to create

¹³ www.anafe-africa.org

a future generation of high calibre employees, employers and entrepreneurs running successful small and medium enterprises (SMEs). WALIC will support postgraduate and specialized training and retraining programmes in livestock and business/entrepreneurship under this theme. Various communications approaches will be used to create interest among youth in livestock value chain careers.

Facilitating development of specialist national institutes to address regional challenges

As a Centre of Excellence, WALIC does not need extensive laboratories or a large number of staff. It will identify existing national institutions and designate them as hubs for specific technical research. These hubs will serve as satellite/network affiliate facilities in universities, NARS and International Agricultural Research Centres (IARC). In collaboration with host institutions WALIC will mobilize resources to strengthen these facilities as part of its institutional capacity development and these in turn will support livestock R&D as well as specialized capacity development. The facilities will include, *inter alia*, nutrition laboratories, veterinary laboratories and genetics/genomics,, GIS/spatial analysis and policy analysis facilities.

5.4.3 Knowledge management

Goal

Facilitate access by livestock stakeholders to reliable and current information and knowledge to inform timely making of decisions

5.4.3.1 Context

Poor access to information is one of the biggest bottlenecks to agricultural innovation in Africa and the livestock sector suffers from it much more than crop agriculture. Some attempts are being made at national level but the challenge remains and West Africa is one of the least endowed regions in knowledge development and sharing platforms. Data, information and knowledge from outside the continent are often used as proxies in making decisions on Africa and a significant amount of data and information on Africa is accessed from sources located outside the continent. Users, especially livestock keepers, have limited access to the critical information they need for the making of decisions. Information must be up to date, in the right format, the right language, at the right time and in the right place. Users also need support in learning how to adapt new information to their own needs. Information is needed for the making of policy decisions, for investment decisions, for monitoring the impact of interventions, for capacity building and for day-to-day management by producers and others along the value chain.

Much data and information have been and continue to be generated at local, national, regional and international levels by many stakeholders. Much of this remains in raw form, has been processed only for elite audiences or is of little value because its integrity has not been tested through analysis and use and is thus not useful or accessible to those who need it most. Ensuring that data are available to stakeholders for validation and use will help to discourage wasteful

duplication of effort. Livestock keepers are often subjected to repeat surveys by researchers asking the same or similar questions because previously collected data is not accessible (or is simply ignored). Higher level regional analyses that compile national data could add significant value to data collection efforts. Collecting and analysing data from multiple countries could also allow for more robust prediction and forecasting that would permit long term decision making and investment at national and regional levels. The results of such analyses could be used to generate knowledge and made accessible to livestock stakeholders in appropriate formats.

The overall aim of this thematic area is to empower livestock stakeholders with information and knowledge to help in the design of interventions. Unrestricted access to information deriving from publicly funded R&D initiatives is a critical prerequisite for success. WALIC will work with donors and investors to advocate for and explore ways through which livestock data and information can be successfully placed in the public domain. The Centre will facilitate the development of formal mechanisms for collecting and collating information and for transforming it to knowledge. The primary focus of the theme will be on improving access to knowledge by stakeholders. Deliberate efforts will be made to use knowledge management platforms to stimulate internal learning practices, thus helping to transform WALIC into a true learning organization, a knowledge broker on livestock and the place to go for data, information and knowledge on West African livestock issues.

5.4.3.2 Main challenges

A key issue in this thematic area relates to poor mechanisms, infrastructure and incentives for collecting, analysing and sharing the knowledge generated from research at national and regional levels. Many wheels are being reinvented, in part due to a lack of data and information capture and sharing mechanisms. Many R&D practitioners can more easily gain access to information in international journals and conferences than to locally generated research reported in local journals, at conferences, in theses and in technical reports.

Specific challenges include:

- Systematic collection and collation of existing data and information from various sources and making them available for use now and in the future;
- Facilitating improvement in the quality, relevance and coherence of data coming from projects and programmes and developing efficient link among the various national, regional and international databases or information systems to enable efficient ways of data collection, analysis and sharing;
- Establishing systems for capturing and storing data in readily accessible formats for analysis and use in various ways for various purposes; and
- Determining and responding to Africa's data, information and knowledge needs.

5.4.3.3 Opportunities

The emergence of Information and Communications Technology (ICT) in the last 20 years has established knowledge management as a tool to address challenges related to collecting, analysing and disseminating information. Mobile telephony is a major breakthrough in this regard. Stakeholders at all levels increasingly recognize the pivotal role of information in priority setting, planning and decision making and this is starting to translate as significant investments in information and knowledge management.

Several continental and regional initiatives are now collecting and processing information and making it accessible to a wide audience. WALIC will be well placed to facilitate a process through which these and other initiatives such as PROGEBE can be leveraged to serve the information and knowledge demand for West Africa, adding value to these existing initiatives and avoiding duplication of effort.

5.4.3.4 Key results

The knowledge management strategy of WALIC will strengthen livestock related knowledge sharing and learning processes at local, community, national and regional levels. This will foster systematic learning from experiences gained in previous and current R&D programmes. This will underpin construction of innovative ways of improving development and formulation and implementation of effective policies. Availability of information on best practices in management, health, feed and processing and early warning systems on droughts, floods and disease outbreaks supplied in the right format and languages for their target groups will assist



producers to make good management decisions. Efficient management of information on local, national, regional and global markets will also improve market access for livestock and their products. WALIC will position itself as the place of choice for information, data and knowledge relevant to West African livestock stakeholders including investors, educators, students and media.

Figure 5.4: Better communications including the use of mobile telephones will improve efficiency in livestock value chains

Facilitating tests of ICT options to improve efficiency and transparency in livestock value chains

ICT, including mobile telephones (Figure 5.4), can provide value chains with a solid basis for doing

business. Current market information obtained through a simple SMS system, for example, can be posted on information boards in towns and villages, effectively linking small producers to an Internet trading platform. It could also be relayed through radios to reach more remote rural communities. The technology is extant but the challenge is to provide an economically viable, self-sustaining system for livestock keepers and other stakeholders.

Development of knowledge products including databases and multimedia

Such products can be used to aid decision making at various levels:

- Databases on specific aspects of health, feeding and breeding that can be summarized and made accessible to producers and traders;
- Compiled and synthesized data and information on livestock and climate change, including both the contribution of livestock to climate change and the impact of climate change on animal production, to inform policy making and public education;
- Success stories on the pilot use of new technology and approaches suitable for scaling up and out and that will strengthen the interaction between target clients and innovators; and
- Market information systems that build on current efforts to improve the quality, availability and use of market information by producers and other participants in the value chain.

Facilitating the development of weather and climate databases to support decision making by livestock keepers

This will be achieved through strategic investment in high quality weather data that can be used to help livestock keepers manage risks. The databases will link to other early warning systems as well as to indigenous systems. This activity links to the capacity building thematic area – producers will need training in the use of forecasts to improve their preparedness, including through breeding and feeding strategies. Given the diverse uses of weather data, this thematic area has the potential to attract significant partnerships, both public and private, to further improve the quality of data collection and analysis.

Economic and policy analysis

Linked to the advocacy theme the aim of this activity is to provide data and information to support economic arguments for investing in livestock health, nutrition and breeding. The activity will be carried out in collaboration with partners and will involve compiling lessons from the field and modelling the effects of various policies on livestock development and the overall economy as a basis for generating policy briefs for use in advocacy. Synthesis of existing information and developing models and knowledge products will be outsourced or done via commissioned assignments whenever appropriate.

5.4.4 Advocacy and Partnership Brokerage

Goal

Elevate the profile of livestock, generate more support for the sector and promote collaboration among stakeholders to address systemic sector wide bottlenecks at national and regional levels

5.4.4.1 Context

This thematic area will pay attention to the partnership opportunities with the greatest potential to unlock livestock value chains and broader R&D bottlenecks and to develop processes for appropriate development and nurturing of partnerships. Coordination with AU-IBAR as the lead organization for livestock in the CAADP and the AU technical agency in charge of coordinating and driving the continental livestock agenda will be crucial. To deliver on this role WALIC will need to have strong brokerage skills internally so that in turn it can help build these skills in partner organizations. The organization could start, however, by using external services from independent intermediary organizations with skills and experience in awareness raising, capacity building and convening multi-sector processes and managing partnership processes by providing a neutral space and skilled facilitation.

The livestock development agenda has changed dramatically in recent years as have the types of institutions involved and the demands they face. Livestock R&D can no longer be left to traditional organizations using old approaches to meet new demands. New relationships with a broader range of stakeholders and new types of institutional capacities are required. The cause of livestock and its profile on development, research and policy agendas must be raised to a level that reflects livestock's economic and social contributions. Better understanding of policies most relevant to the livestock industry, including those affecting trade, is crucial. WALIC will work to create more enabling policy and investment environments and will contribute to advocacy, working through existing and new partnerships. There is also a need to coordinate currently atomized initiatives among technology development agencies, donors, investors and value chain groups. R&D donor coordination at regional level remains weak and private sector investment in R&D hardly exists. No organization in West Africa has a mandate or the capacity to broker livestock sector partnerships.

Building partnerships among stakeholders and across countries will catalyse national and regional capacities, harness synergies and limit duplication. As a partnership broker, WALIC will be an active intermediary among various organizations and sectors to facilitate collaboration or to improve the quality of collaboration in specific initiatives or as a process to meet precise common goals. WALIC will identify opportunities for partnerships and help parties to recognize partnership potential. The Centre will also be a convener, facilitator, knowledge and information provider, networker and network builder, partnership incubator and mentor. It will act as process designer and manager as well as a behind the scenes leader.

Multi-sector partnerships for sustainable development are complex. They require the establishment of functional links among individuals who are often from radically different cultures with real or perceived competing interests so can take considerable time and effort to establish and to nurture to maturity. ITC focussed on building and managing its bilateral partnerships with other public R&D institutions whereas WALIC, in its redefined role, will need to engage explicitly both civil society and the private sector.

5.4.4.2 Main challenges

- Improving public and private sector and donor investments in animal agriculture;
- Making livestock value chains functional, transparent and beneficial to small producers;
- Making smallholder livestock keepers more competitive and facilitating entry to higher value local, national, regional and global markets;
- Actualizing regional and continental trade in livestock and livestock products and facilitating the translation of national and regional commitments to actions;
- Leveraging existing R&D capacity and achieving more whilst working to improve it;
- Encouraging various stakeholder development groups to work together more effectively;
- Replicating models of successful partnerships from elsewhere; and
- Improving donor coordination, the lack of which has meant the potential to implement priority interventions relevant to the poor has not been successfully harnessed.

5.4.4.3 Opportunities

Securing reliable access to land, water and other natural resources

WALIC will facilitate regional dialogues on access and will identify or commission case studies and facilitate policy dialogues and review processes. Research will build on cases from elsewhere that demonstrate that reforms in land and water governance can improve the livelihoods of the rural poor. Holistic approaches to land tenure issues that can improve land coordination in various ways are also emerging. These new approaches entail unblocking existing initiatives, helping to strengthen existing networks, assisting in development of affordable tools useful to poverty stricken communities and disseminating knowledge on implementing security of tenure.

Public sector investment

WALIC will undertake awareness and advocacy on the value of public sector investment in livestock development supported by evidence on the contribution of livestock to GDP and on returns to investment. The Centre will build the capacity of non-state parties for effective advocacy.

Investment coordination

The Paris Declaration Principles provide a framework for bringing donors together. As a regional agency with a technical mandate on livestock in ECOWAS countries WALIC would be able to bring together bilateral and multilateral donors, the private sector and NGOs.

Improving the functionality of livestock value chains

Recognition not only of the causes of market access challenges but also of the need to address them is increasing. Opportunities exist to facilitate the ability of value chain participants to discuss the enhancement of their collective voices to harness market opportunities and their capacity to increase chain value and functionality.

Challenges facing cross border trade

WALIC will gather data and information on policy and non-policy bottlenecks to cross border trade. It will convene public and private sector stakeholders to deliberate the actions needed to implement current commitments and to agree on tracking progress.

5.4.4.4 Key results

Building on lessons from previous projects and new evidence WALIC will facilitate, in collaboration with similar organizations, generation and compilation of evidence to inform policy and institutional changes. Brokerage will focus on influencing and incubating strategic and sustainable partnerships that contribute to national and regional objectives that support the emergence of functioning livestock institutions and value chains effectively supported by a public sector that takes its regulatory and support roles seriously.

Creating enabling policy and investment environments

WALIC will work with businesses and civil society in order to engage the public sector in raising the profile of livestock on the development agenda. Enabling the policy environment is crucial but there is also need for proactive engagement of stakeholders who provide resources for livestock. These include governments, development agencies and private sector investors. Work in this area will therefore include providing evidence to support arguments for increased public and private sector investments as well as for policy and investment advocacy processes that bring key stakeholders together. WALIC will help value chain participants to engage effectively in these advocacy processes (Figure 5.5).



Figure 5.5: Links in the value chain (backyard producer>trader>butcher> consumer) will be strengthened and incomes increased with WALIC interventions

Interventions will include building stakeholder capacity to engage in transforming the performance of the livestock industry, identifying and fostering engagement opportunities, facilitating engagement processes and ensuring that the right stakeholders are involved and adequately prepared. Key stakeholders include producer groups, private sector input suppliers and service providers, livestock and product traders, aggregators, processors, public extension services, policy makers, national livestock research organizations, regional and international R&D organizations, NGOs and the ECOWAS Secretariat.

Partnerships that serve as mechanisms to share and coordinate use of resources and expertise

The role of WALIC will be to bring together R&D institutions, businesses and civil society in order to benefit from complementary resources and expertise and to coordinate contributions to development issues. Dissemination and sharing of existing technology, knowledge and information rests in this domain and will seek to exploit economies of scale in knowledge generation and dissemination and thus help to build capacity. An important starting point for brokering these partnerships will be an inventory and understanding of human resources, facilities and information databases of regional capacity that will be a basis for development of projects or programmes that lever available capacities and comparative advantages.

Partnerships to facilitate livestock value chain development

With a focus on market access WALIC will work with producer organizations, helping in organization and enhancing capacities, voices and bargaining power. Partnerships will aim to provide market access through producer groups, organizations or networks. These will be critical for smallholders and other value chain participants operating as individual entrepreneurs or small businesses without the ability to access higher value markets. WALIC will also identify standards and norms that constrain the performance of the industry and will broker partnerships that aim to free the bottlenecks related to standards.

5.5 Potential Impacts of WALIC Activities

A "Theory of Change" describes the types of interventions (a single programme or a comprehensive community initiative) that bring about the outcomes depicted in the pathway of a change map. Each outcome in the pathway of change is tied to an intervention, revealing the often complex web of activity that is required to bring about change.

The WALIC "Theory of Change" focuses on genetic improvement of the region's indigenous livestock resources, increased GDP, household income, food security, improved nutrition, the environment, the empowerment of women and youths and the development of social capital.

It is clear that the impact of WALIC activities will vary across the themes. It is equally clear that the estimation of amount and value are difficult to calculate in financial or economic terms at this early stage of development. Most benefits are, indeed not going to be financial or economic in direct terms as for some areas of WALIC intervention they are mainly, indeed may be entirely, social or environmental (Figure 5.6).

WALIC THEORY OF CHANGE

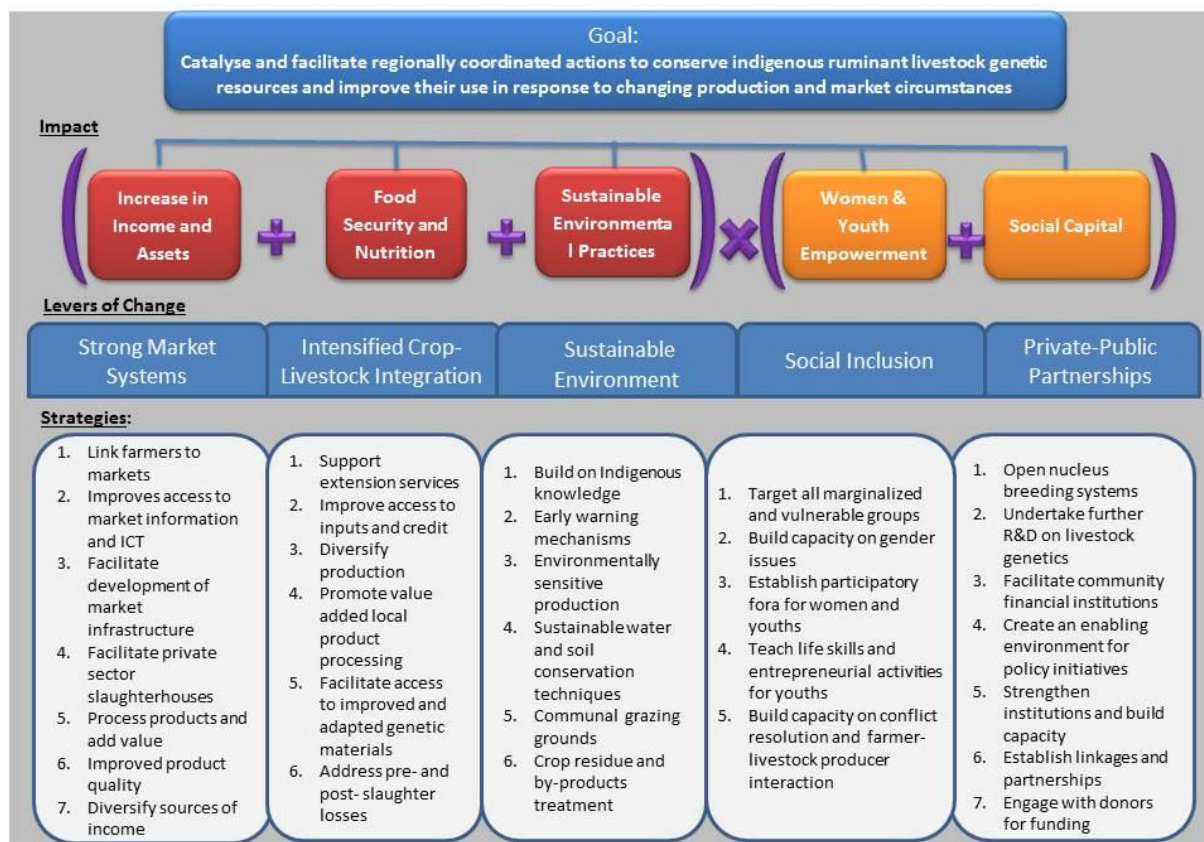


Figure 5.6: WALIC Theory of Change for Genetic Improvement and Better Use theme

As a rare example of the quantitative benefits that can accrue from some interventions, is the work carried out by ITC in the early twenty first century. This showed that selective breeding of trypanotolerant N'Dama cattle resulted in heavier live weights, higher milk yields, reduced mortality, a percentage increase in offtake and a younger (and therefore probably more productive herd (Table 5.1)¹⁴. The proportionate changes in national meat and milk output would have been equivalent to USD 2.01 million at 2002 prices. In addition to producer outcomes consumers would have benefited from a relative reduction in prices of 20 per cent for milk and 4 per cent for meat.

¹⁴ Okike I, Agyemang K and Ehui S. 2002. Impacts and potential benefits of ITC's animal health research and herd management interventions: a case study of The Gambia. International Trypanotolerance Centre: Banjul,

Table 5.1: Impact of intervention on some production parameters of N'Dama cattle in The Gambia

Parameter	Before	After	Impact of ITC intervention
Total live weight of herd (kg)	16 201	18 543	Proportionate yield of 15 per cent equivalent to 4.5 kg additional live weight per head
Annual milk off take/herd (litres)	5 374	7 042	Proportionate yield change of 31 per cent, equivalent to additional 48 litres of milk per breeding female at 35 breeding females per herd
Annual herd mortality (per cent)	7.9	6.7	1.2 per cent reduction in mortality
Annual herd off take rate (per cent)	6.6	7.6	1 per cent increase in off take rate
10-year change in herd size (per cent)	40	56.3	16.3 per cent incremental herd growth
Implied cow average exit age (years)	13.9	13.3	Retention of younger and more productive herds

Other activities which may provide outputs that will generate outcomes and benefits that will be difficult to quantify are:

Theme 1: Genetic improvement, conservation and better use of West African ruminant livestock

Activity: Development and adaptation of options for genetic improvement building on lessons learned from the open nucleus breeding pilot schemes of ITC and making these options widely available in the region.

Outcomes/benefits: Enhanced use of improved and conserved indigenous livestock resources.

Theme 2: Capacity development along livestock value chains

Activity: WALIC support for postgraduate and specialized training and retraining programmes in livestock and business management and entrepreneurship. Various communications approaches will be used to create interest among youth in livestock value chain careers.

Outcomes/benefits: A future generation of high calibre employees, entrepreneurs and employers owning and managing successful small and medium enterprises.

Theme 3: Knowledge management

Activity: Development of knowledge products including databases and market information systems made accessible to producers, traders and other chain participants.

Outcomes/benefits: Improvements in decision making and in marketing and other chain operations

5.6 WALIC Joint Research and Development Opportunities with African and International Partners

WALIC is a small organization relative to its new and expanded mandate. As such it will depend heavily on building effective strategic partnerships to deliver its broad agenda. The Centre will, however, need to be very selective in choosing its partners and innovative in developing partnerships and alliances in ways that leverage expertise and other resources whilst keeping relationships between the parties meaningful and productive. The four strategic themes have differing partnership requirements although there will be considerable overlap among them (Table 5.2). Particular attention will be paid to the choice of partners with which it should engage, for what purpose and when and it must be able to justify these choices internally and externally.

Table 5.2: Possible WALIC partnership arrangements in relation to thematic areas

Component	Subcomponent	Activities
1. Improved productivity and competitiveness of the livestock, meat and dairy sectors	1.2. Improved livestock feed security	Crop-livestock integration
	1.3 Improved performance of local livestock breeds	Set up regional banks for conservation and distribution of genetic resources
3. Structure the animal production sector	3.1 Strengthened relevant professional organizations	Strengthen institutional framework and organizational capacity of stakeholders in the livestock, meat and milk sectors.
	3.3 Promotion of processing and adding value to animal products	Improve processing and packaging systems for animal products
4. Create an environment favourable to the development of the livestock, meat and milk sectors	4.1 Promotion of science, technology, research and veterinary training	Support the updating of animal production parameters and improve and expand technologies and best practices
	4.3 Promotion of women and other vulnerable groups	Identify and incorporate gender into planning and execution of policies and programmes

Managing multiple partnerships will present many challenges as will the associated transaction costs. Thematic Area Managers (see Section 7.4) will be responsible for managing partner

relationships in their operating areas and will have or will be trained in the skills required for partnership management.

There are encouraging signs that donors will continue to invest in agricultural production and many will finance regional activities and individual countries. Some donors subscribe to and have demonstrated preferences for consortia as outlined in the 2005 Paris Declaration on Aid Effectiveness. WALIC will need to develop a partnership strategy on financing that ensures long term stability and removes the risks associated with short term financing and a narrow investor base. The financing model for WALIC must include many implementing partners and investors but there will also be opportunistic single investor short term projects. The strategy will be to nurture special project investors into providing longer term support.

WALIC will inherit a number of longstanding international partnerships from ITC notably with ILRI, FAO, GIZ (former GTZ), the Belgian Government, the European Commission, French Cooperation and many Agricultural Research Institutes (ARIs). The Centre should seek to reconnect with these partners and build on the relationships while also bringing in new partners relevant to its broader agenda. A number of potential new partners were invited to participate in the strategy development process and these relationships will be strengthened as the strategy becomes operational.

The major principles guiding the partnership strategy of WALIC are:

Relationship management For each strategic partnership with an organization, collaborative programme or project the Centre will assign a relationship manager to champion the content and processes involved. This manager will be a project leader or a member of the project team assigned to that partnership, will have direct responsibility for facilitating partnership goals and will be fully supported by Centre management.

Clarity of mission and strategy The design of partnerships will identify in a proactive way and clearly spell out the win-win opportunities for the organizations involved.

6. FINANCIAL MANAGEMENT AND COST MODELS

6.1 ITC Income and Expenditure, 2004-2013

At its genesis ITC enjoyed the support of a broad range of international financing agencies. Among these were Rockefeller Foundation, World Bank, African Development Bank, European Economic Community, UK Overseas Development Administration, Belgian and Norwegian Governments, UDP-FAO and the Government of The Gambia.

As the Centre gathered momentum and proved its scientific excellence the original donors were joined by the Swiss and German Governments, the now European Community, the Canadian

International Development Research Centre (IARC), Italian aid, IFAD and OPEC. Several donors preferred, however, to fund only the development of infrastructure or clearly defined and discrete research projects – in fact classic “project” as opposed to “core” funding. Financial support on completion of these narrowly defined projects was often not continued into a second tranche. By 2006, ITC’s donor base was shrinking and the project driven *modus operandi* was adversely affecting total income (Figure 6.1).

Factors additional to the withdrawal of project funding added complications as donors became dissatisfied with ITC’s reduced impact due to the infrequent review of its programmes and approaches that no longer fully reflected current and emerging regional and global issues and poor management of the global and regional public goods and knowledge generated by the Centre. In effect, the Centre no longer adequately demonstrated its value to development partners and its positive impact on producers and other stakeholders. The situation was sufficiently critical by 2011 for the ITC Council to decide to take steps to address the funding problem. The development of MALIC’s 10-year strategy is a principle measure being taken to overcome some of the foregoing problems.

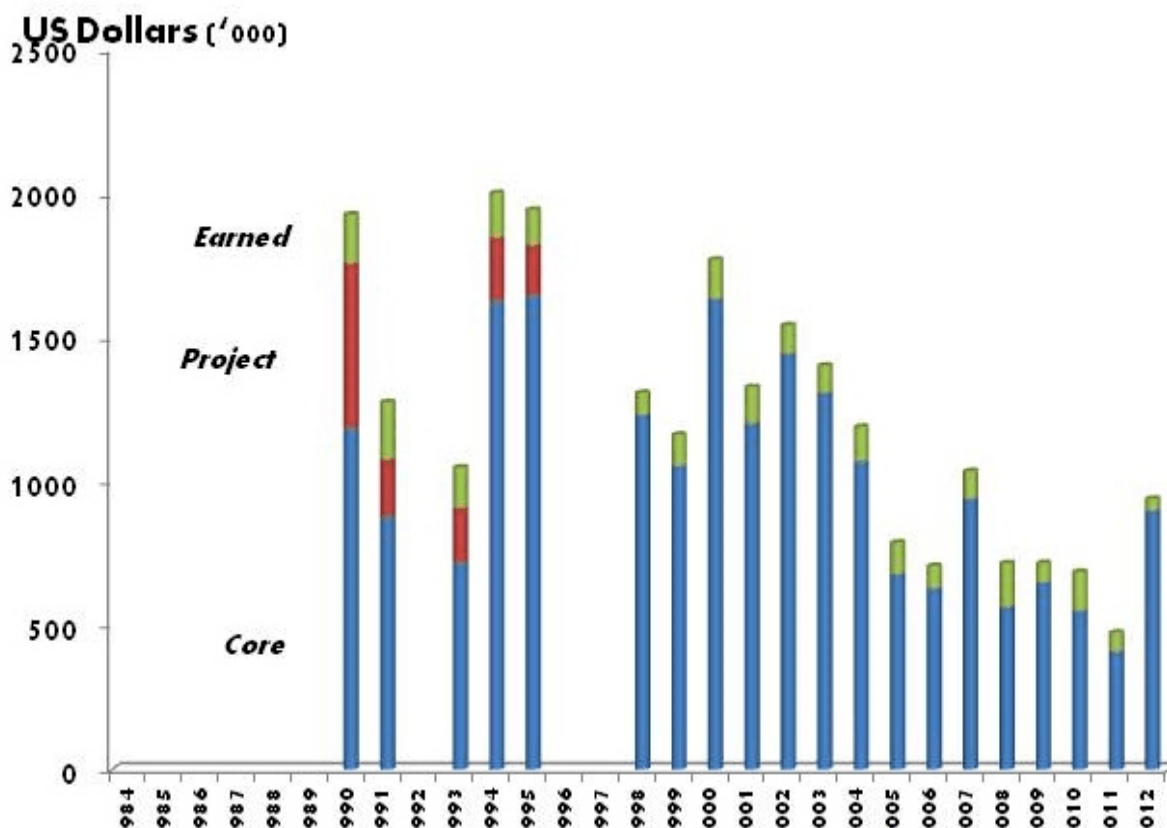


Figure 6.1: ITC Incomes (US Dollars '000) by source of funds and year, 1984-2010

6.2 Resource Mobilization Strategy for Increased Impact

6.2.1 Historic and required funding

WALIC's agenda is much more ambitious in content, scope and approach than was that of its predecessor - ITC. A significant increase in resources will be needed to deliver the new 10-year strategy. The funding portfolio will need to be diverse in terms of both its sources and its intended use. Most development investors are increasingly tying grants to specific projects. The WALIC strategy contains many interesting concepts but the challenge will be to match these to the right donors and to develop them into fundable projects with clear deliverables.

The dominance of special project funding in the budgets of R&D institutions has major implications. A large part of administrative overheads, for example, will need to be raised from various sources. Administrative costs ideally should be funded from overheads charged to the special projects but donors are increasingly declining to cover such general expenses. WALIC's senior management and the Board will thus need to make a major effort to attract unrestricted funding. Contributions from the ECOWAS region should increasingly, cover a larger share of these costs, as the strategy seeks to achieve. A further source of funding that can develop over time is income earned by WALIC for providing goods and services to clients: it is considered that contributions from this source should cover 10-15 per cent of the total budget. In order to conserve financial resources as much as possible the Centre will give high priority to building on existing physical infrastructure in institutions in the region (see Theme 2) and will adopt a strategic approach to determining what needs to be set up at its headquarters in Banjul.

As work packages develop under the four themes the centre will aim for an initial budget growth of 10 per cent per annum to reach a total annual budget of US\$ 4 million by the fifth year of operations (Table 6.1). Thereafter an average annual growth rate of 20 per cent will be sought in the second half of the strategic plan period to achieve an annual budget of US\$ 8 million by Year Ten. Growth will be achieved by the strategic targeting of donors to fund specific themes and areas within themes. Particular attention will be given to engaging non-traditional donors, especially philanthropic foundations and the private sector, through innovative public-private partnership arrangements. The Centre will also make a special effort to mobilize unrestricted resources for new high priority activities and to form the basis for future special grants and for rehabilitation or establishment of new infrastructure (Figure 6.2).

Table 6.1: Proposed target budgets and possible donors and investors in WALIC during the first five years of the Strategic Plan

Thematic Area	Main investors/donors	Required Budget (US\$ '000)				
		2013	2014	2015	2016	2017
1. Genetic improvement, conservation and enhanced use	ECOWAS Region, Belgium, AfDB, FAO, IDB, AU-IBAR, USAID, Aus-Aid, EU, Germany, DFID, other bilateral donors	840.0	924.0	1016.4	1118.0	1229.8
2. Capacity development along value chains	ECOWAS Region, Belgium, Germany, DANIDA, Swiss Cooperation, AfDB, FAO, IDB, DFID, IFAD, AU-IBAR, USAID, Aus-Aid, EU, B&MGF, World Bank, CORAF/WECARD, CTA, bilateral donors, private sector	420.0	462.0	508.2	559.0	614.9
3. Knowledge management	ECOWAS Region, Belgium, AfDB, FAO, IDB, IARC, AU-IBAR, IFAD, USAID, Aus-Aid, EU, private sector, B&MGF, other bilateral donors, EMBRAPA, CTA	420.0	462.0	508.2	559.0	614.9
4. Advocacy and partnership brokerage	ECOWAS Region, Belgium, AfDB, FAO, IDB, AU-IBAR, USAID, Aus-Aid, EU, B&MGF, DFID	420.0	462.0	508.2	559.0	614.9
Programme Support (30 per cent)	ECOWAS Region, Belgium, Germany, DFID, AfDB, FAO, IDB, AU-IBAR, USAID, Aus-Aid, EU, other bilateral donors	700.0	770.0	847.0	931.7	1024.9
Total		2800.	3308.	3388.0	3726.8	4099.5

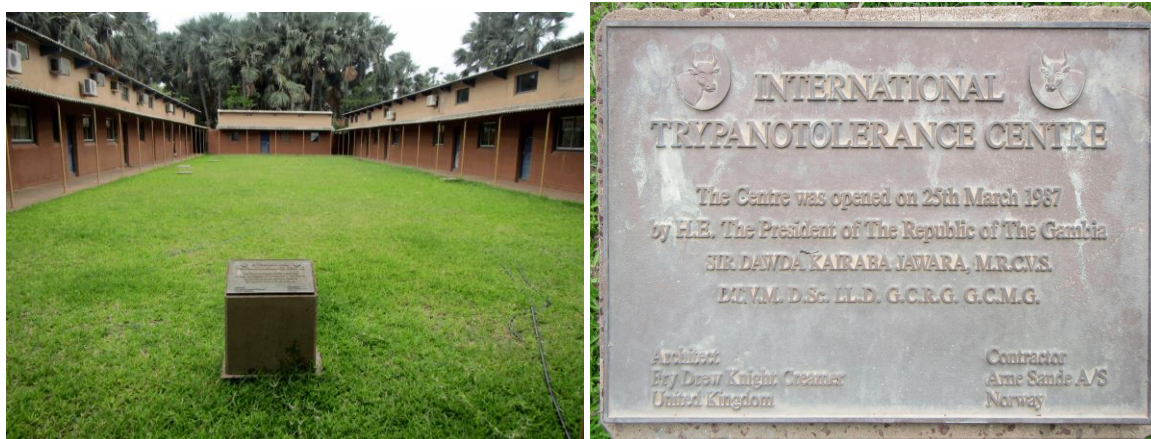


Figure 6.2: ITC Laboratory Complex at Kerr Seringe, The Gambia

6.2.2 Implementation of the strategic plan under three funding scenarios

The amounts of funding for the four Strategic Themes and for Programme Support costs shown in Table 6.1 are those estimated as needed to finance the identified programmes and activities. These figures can be considered to be the Optimistic Scenario. It would be prudent, however to consider two other scenarios: the one would be a scenario whereby this level is not achieved by 20 per cent – the Less Optimistic Scenario – and the other whereby a sum 20 per cent in excess of the Table 6.1 figure is achieved – the Over Optimistic Scenario.

In the event that the potential or anticipated actors listed in Table 6.1 are slow to respond or contribute less than the required amounts (the Less Optimistic Scenario) the Themes and Activities will need to be adjusted accordingly. In this case initial priority will be given to Strategic Theme 1 and the other three Themes will be scaled down. If more than the calculated amount is received (the Over Optimistic Scenario) decisions would need to be made on which Themes and Programmes would be expanded (assuming that all funds are not “restricted” by donor preferences. Whatever the situation, it is expected that the funding amounts of the various Themes and Activities will be revised once the new Governing Board examines the funding environment and makes recommendations to WALIC Management.

6.2.3 Income generating activities

In addition to sourcing funding from external sources WALIC will generate income from its own activities. These activities include provision (sale) of consultancy services, hiring out (renting) of existing research facilities to other research and development organizations, sales of improved genetic material (livestock, semen, embryos) and sales of milk and meat (as currently operated).

6.3 Cost-Benefit Analyses

A classic cost-benefit analysis needs a whole (and complete) array of data from both sides of the equation. Such data unfortunately do not exist for the themes and activities to be carried out by WALIC. It is possible to construct a reasonable estimate of costs for such activities (Table 6.2) but impossible, at this stage and with existing resources, to construct an estimate of benefits. Indeed, it may never be possible to calculate the latter with any degree of accuracy because not all the benefits, and probably a majority of them, are not physical outputs to which a unit value can be ascribed. As previously indicated many benefits are social and environmental. There can be little doubt, however, that the totality of benefits – physical and financial where they will arise, social and environmental – generated by WALIC activities will greatly outweigh the costs

Table 6.2: Costs (USD ‘000) over five years for Strategic Theme 1: Livestock Genetic Improvement and Enhanced Use

Cost category	Year					Total
	1 - 2014	2 - 2015	3 - 2016	4 - 2017	5 - 2018	
DIRECTORATE/a						
	97	102	107	113	118	537
RESEARCH						
Research Staff	340	357	375	394	413	1879
Research inputs/b	400	420	441	463	486	2210
M&E	40	42	52	55	57	246
Biometric Staff	34	36	44	46	49	209
ICT Staff	25	27	34	36	38	159
Sub-total	936	983	1053	1106	1161	5238
PROGRAMME SUPPORT						
Finance and Administration /HR	90	95	104	109	115	512
Physical Plant/Field Support/c	28	30	31	33	34	155
Sub-total	118	124	135	142	149	667
SPECIAL INPUTS/d						
Infrastructure and Equipment	1320	908				2228
Recruitment	350	200				550
Sub-total	1670	1108				2778
TOTAL	2724	2215	1188	1247	1309	8683

Notes:a: Salaries and other entitlements of the Director General, Deputy Director General Administrative Assistant and Secretary

b: Includes farm labour, livestock maintenance, laboratory supplies and animal vehicle running

c: Includes Outstation administration, mechanics, drivers, etc

d: Covers one-time provisions made by a donor for purchase of equipment, livestock and refurbishment of facilities needed for implementation of activities under Strategic Theme

1

7. GOVERNANCE AND INSTITUTIONAL ARRANGEMENTS

7.1 Background

The governance structure of ITC was established by the International Trypanotolerance Centre Act, 1982 of the Republic of The Gambia. The Act provides for a Governing Council of not less than nine and not more than fifteen members who hold office for three years and are eligible for a single reappointment. It provides for seven *ex-officio* members and eight independent members. Members mentioned in the Act include: a) Minister of Agriculture of The Gambia; b) Director General of ILRAD; c) Director General of ILCA; d) two members appointed by the Government of The Gambia, one of whom is the Director of Animal Health and Production; e) Director of ITC; and f) not more than seven other persons or organizations, including donor agencies, all of whom are appointed by the Council. The Council appoints a Chairman and Vice Chairman from among its members. The Act provides for an Executive Committee comprising the Chairman and not more than five persons appointed from among Council members.

The Governing Council meets at least once a year. The Executive Committee meets twice a year but may meet in extraordinary session at the request of the Chairman. The Executive Committee advises the Council but its decisions are subject to Council approval. In addition to the Executive Committee, Programme and Finance Committees were established by Council which meet annually and whose members serve for three years. The Act requires that the Director of the Centre (in effect the Chief Executive Officer) be chosen and his tenure determined by the Governing Council.

ITC has a Memorandum of Understanding with The Gambia that provides specified privileges including operational autonomy, premises inviolability, exclusive control of headquarters and stations; communication privileges "not less favourable than accorded to diplomatic missions or any other international organization" and exemption from local taxation. Immunities and privileges granted to ITC officials, agents and experts are that expatriates be accorded those given to officials of international organizations based in the country and that they be issued with special identity cards. Expatriate staff is exempt from local taxation and are allowed duty free import of furniture and personal effects. Short term contracted foreign experts working with ITC in The Gambia enjoy the same immunities, privileges and facilities as ITC officials and agents.

In response to changes in the institutional landscape and the recognition of a need for stronger representation in West Africa an amendment to the International Trypanotolerance Centre Act in 1994 resulted in ILRAD and ILCA (which were then in the process of merging to form ILRI) were dropped from the Council and replaced with representation from national and regional research organizations. The title of Director was changed to Director General and the size of the Council was reduced.

7.2 Proposed Governance Arrangements

The proposed governance structure for WALIC will require further amendments to the Act¹⁵ that take into account its mission, the socio-political setting, the regional as well as the international institutional landscape and current trends in organizational governance.

A one-tier governance structure comprising an independent broad-based and representative Board will be adopted. The Board will comprise not less than 12 and not more than 15 persons with due recognition of gender representation. These, selected on the basis of relevant expertise, will be drawn from the Government of The Gambia; civil society organizations (farmers' organizations, NGOs), regional (ECOWAS) and sub-regional (CORAF/WECARD) organizations, development partners and high level decision makers from countries in the region. The Chief Executive Officer of the Centre will be an ex-officio member and will serve as Secretary to the Board. A majority of the Board members will be from West Africa and every effort will be made to ensure a balance of expertise relevant to the business of the Centre, including "hard" and "soft" sciences, organizational development, practical experience and local knowledge.

Each member will serve a term of three years with the possibility of a single renewal. The Chairman will be elected from among the members and will serve for three years, renewable once. Board business will be carried out by relevant committees and by the full Board, as determined by the members. The Board will meet once a year and will provide guidance to Centre management through Executive, Finance, Programme, Audit and Nominating Committees.

The principal functions of the Board are:

- Appointment of the Chief Executive Officer;
- Formulation of policy and oversight of implementation;
- Approval of revised strategic and implementation plans and annual work plans and budgets;
- Approval of annual financial and audit statements; and
- Oversight of risk management.

¹⁵ A draft document is being considered by the Minister of Agriculture in August 2014.

7.3 Institutional and Management Arrangements

WALIC will have a relatively small staff and management in relation to its expanded mandate but this reflects its primary roles as catalyst, facilitator, partnership and knowledge broker, resource mobilizer, advocate and coordinator.

Core management will consist of a Director General, Deputy Director General, Finance and Administration Manager, four Thematic Area Managers and a Monitoring and Evaluation Officer. These will be supported by a small team of researchers and technical and administrative support staff. As the Centre's programme develops and projects are initiated, Project Managers will be recruited to support the Thematic Area Managers. Creative opportunities will be explored to enable challenging and mutually beneficial secondments, attachments and internships, thereby further building regional capacity while addressing immediate human resources needs.

The Director General will be responsible to the Board for successful implementation of the Business Plan and for overall efficiency and effectiveness of operations. Performance standards will be introduced to increase operational efficiencies across activities. Standards will cover the cost, timeliness and quality of the services provided by the Centre to itself and its partners and will include services such as human resources, finance, capacity development and procurement. Details of these performance standards will be developed as soon as possible after the establishment of WALIC.

WALIC will mobilize a wide range of expertise to drive its agenda. Shared appointments and secondments will be explored with most partners. These need not require the physical relocation of staff from their duty stations as many assignments could be done from remote or home stations with occasional travel to the Centre. WALIC will provide training and mentoring opportunities for early career professionals interested in the issues covered by the Centre. The diverse multi partner platforms that will be critical to WALIC's programme will provide a suitable environment for nurturing talent in a range of disciplines.

7.4 Annual Activity and Financial Reports

The Director General will prepare an Annual Report on all operations, outputs and outcomes and an Annual Financial Statement with a balance sheet showing all income and expenditure broken down to Cost Centres. Both the Annual Report and the Annual Financial Statement will be put in the public domain and shared with stakeholders and investors as a contribution to improving the transparency of the Centre's operations and its financial management. Increased efficiency and reduced transaction costs will follow if the Centre's institutional investors are able to accept a common annual report and an audited financial statement and balance sheet rather than requiring separate reporting on their investments.

8. IMPLEMENTATION OF THE BUSINESS PLAN

8.1 Communications and Publications

8.1.1 Overview

Close contact with stakeholders during the changeover period will be important to re-enthuse them. Information and Communications Technology (ICT) is of immediate relevance. Growth in ICT has transformed the ability to use knowledge developed elsewhere for other purposes. Communications are central to the 10-year Strategic Plan and are built on a number of pillars. Specific resources will be allocated for improvement of the existing website and for further website development. Milestones and targets will be set and progress assessed regularly with effective M&E tools. The communication strategy aims to increase the visibility, awareness and understanding of the facilities, activities and capacity building opportunities across Africa and internationally.

8.1.2 Target audience

Donors, policy makers (including local, national and regional policy bodies), input providers, farmers, breeders, extension services, dealers, producer organizations, other civil society groups and non-governmental organizations and consumers will be the priority audiences for communications during WALIC's lifetime. These target audiences represent a wide range of interests, knowledge and educational levels so it will be important that communications products are tailored to meet their different needs in subject matter, format and degree of sophistication. Specific action plans will be developed for the various groups as the needs arise.

8.1.3 Effective communications

Strong communications are critical. Failure to engage effectively with stakeholders ultimately contributed to the decline of ITC. Outputs were not widely shared, research impact was lost and support and funding declined. Ensuring effective communications requires a change in institutional culture and they must be integral to WALIC's work. Expert communicators will be needed to help shape the Centre's key messages. A strong and proactive branding campaign will convey WALIC's mandate and mission and illustrate that the Centre is the result of profound and far reaching but necessary changes.

Raising awareness of the economic and social benefits of indigenous livestock – and of threats from exotic breeds – could help improve policy commitment and donor funding. WALIC has a role in promoting and marketing native breeds. The Centre must also create a high profile among donors and policy makers by making a strong case for its contributions to issues of concern (food security, economic growth, conservation, climate change and poverty alleviation) to them. Stakeholder engagement and participation are vital in ensuring that WALIC's activities are relevant

to their needs. Stakeholders must be encouraged to feel ownership of the Centre but this will require two way interaction at all stages. Effective dialogue can also help to ensure that the Centre's output is converted into innovation or behavioural change.

The expanded mandate has implications for communications. WALIC will have a broader geographic and thematic reach than ITC but it will remain small in size. Communication materials may have to be translated into several languages. The Centre will need to make more use of research multipliers such as NARS, NGOs and farmer associations in order to reach a more diverse and widespread clientele. Online communication, virtual networks and mobile telephone technology will be increasingly important.

8.1.4 Evidence of impact

WALIC must convincingly demonstrate that it has generated regional public goods such as higher productivity or reduced imports of meat and milk. The Centre also needs to be precise on its contribution to the development objectives of programmes such as CAADP and organizations such as ECOWAS.

Lack of market data and reliable statistics on livestock in West Africa provide an opportunity for WALIC. In addition to communicating its own research results WALIC has a potential role in collecting, packaging and making such information available to stakeholders.

8.1.5 Communication objectives

The overarching goal of WALIC's communications strategy is to support its vision of a vibrant West African livestock sector that boosts food security and creates wealth whilst safeguarding the environment. Communications can support these objectives in a number of ways.

Promote institutional coherence and effectiveness

Strong internal communications among management, staff and Board ensures clarity and a shared understanding of WALIC's goals, strategies and *modus operandi*. Internal communications also strengthen relationships among WALIC staff. The Centre will use traditional means such as memos, e-mails and newsletters as well as intercom, social media, websites, YouTube and other online channels to communicate internally.

Raise awareness and support for WALIC

A concerted effort will be needed to promote the new Centre, to explain why and how it has undertaken reforms and to demonstrate how it will contribute to the aims of donors and policy makers. WALIC will use public relations approaches to build its reputation by publicizing successes, providing evidence of impact and demonstrating its achievements. It will, however, require strong political support to achieve its aims.

Support WALIC's thematic areas

Communications will support and provide outlets for disseminating results from the thematic areas. Products will be used to package and promote knowledge management outputs (Theme 3) to help establish WALIC as the primary source of livestock information in West Africa. Communications to support capacity development (Theme 2) will include campaigns to attract youth to the livestock industry using both mainstream and new media. Advocacy and partnership (Theme 3) will work to promote animal agriculture and raise livestock issues with policy makers and donors.

Promote and support the use of indigenous livestock

WALIC will promote the social and economic benefits of regional livestock breeds and promote them in the agenda of policy makers and donors. The Centre will address perceptions that these livestock are inferior or obsolete and make clear the threat posed by imports of exotic types. Most communications under this objective will be regional but international awareness of the importance of this genetic diversity in addressing global challenges must be raised.

Engage effectively with stakeholders and share research outputs

WALIC will facilitate effective dialogue with its stakeholders, providing regular opportunities for engagement, participation and feedback. Research outputs will be widely shared and disseminated. This engagement will ensure that research is aligned with stakeholder needs and will increase adoption of the Centre's research outputs.

Facilitate partnerships and networking

WALIC will encourage innovative collaborative partnerships through proactive brokerage and facilitation of multi-stakeholder platforms. The Centre will provide online tools (data base sharing, e-fora, video conferencing) to facilitate remote networking.

Provide information on regional livestock production

WALIC will serve as an information hub providing experimental research results as well as livestock statistics, market information and emerging issues in livestock production to its stakeholders and others. The Centre intends to become the primary source of information on livestock production in West Africa.

“Hard copy”

During its early life, brief compelling and pertinent publications for policy makers and donors will be a priority. Impact briefs that consolidate data on past success, case studies and endorsements are a powerful advocacy tool. Information materials will be developed on issues encompassing the importance of livestock production in West Africa, the threat to indigenous ruminant types and the adaptive capacity of dryland livestock to respond to climate change.

Annual reports, a quarterly newsletter, fact sheets, briefing notes, best practice manuals and training materials for a range of subjects will be published.

The centre will continue the tradition established by ITC for publishing research results in international peer-reviewed journals and producing high quality technical reports. These outputs will take into account intellectual property rights. Use of open source journals and early sharing of data will be encouraged.

Events

A programme of events is essential for engaging stakeholders and engendering support. WALIC needs to determine which events and meetings it should attend. Amongst such activities would be oral briefings and presentations to policy makers and donors, exhibits or presentations at science, development and trade conferences, participatory events with farmers and their intermediaries and knowledge transfer events such as capacity building demonstrations.

Visual and oral media

The media are an important route to influencing high level representatives of all stakeholder groups. Advocacy opportunities should be identified in research discoveries, institutional developments and external events. Press releases and technical and policy features will be submitted to regional or international outlets and to relevant external networks and newsletters. Recorded podcasts or other media packages will be provided to local and community radios across the region.

8.2 Human Resources and Skills

Focus on the four core areas will largely determine the directly employed staffing of the Centre. This should ensure the availability of critical skills for the envisaged tasks and for acquisition of new technology and its use for delivery of new and more efficient research and capacity building activities and services.

The **genetic improvement and better use** theme requires expertise in a wide range of areas within the biosciences. The Centre must therefore have a person who is a recognized expert and leader in cutting-edge research activities which will allow continuous engagement with the international research community.

Value chain capacity development needs to address challenges that prevent individuals and institutions from operating effectively along the whole length of a value chain from primary production to final consumption. The leader of this theme must have the skills to teach and mentor a wide range of people and institutions in order to lead them to improved food security and higher agricultural productivity. At the lowest level functional literacy will be required

Knowledge management requires multiple actions in gaining access to, processing and organizing information and data and transforming it into knowledge in ways that have the highest potential to make an impact on livelihoods. The theme will need to be led by a person with superb communication and presentation skills.

Advocacy and partnership brokering is meant to draw stakeholders together and uses available evidence to enhance awareness and draw attention to issues that are important to the livestock sector. It needs, also, to facilitate policy development processes and ensure coherence. The team will need skills of the highest order in this general domain.

In addition to the foregoing, the Centre **management, coordination and support functions** require outstanding leadership and essential skills for partnership coordination, project management, accounting, technical report development, budget and grants management, communications and contributions to resource mobilization.

Skills in **monitoring, evaluation and learning** are critical for the Centre team to conduct in an effective manner *ex ante* and real time analyses of research, capacity building, technology and services. A Monitoring and Evaluation Officer will be appointed as one of the core senior staff (see Section 7.3).

The proposed core team is small in relation to its mission especially for combined responsibilities for delivering on regional and even continental research, capacity building, technology and research services agenda. It is therefore imperative that only people of the highest quality are recruited to the Centre. Effective delivery of the Centre mission will rely on progressive and innovative strategies to attract and retain skills of the highest calibre.

8.3 Monitoring and Evaluation (M&E), and Learning

A framework (a “logic model”) for tracking progress will be developed including all of the Centre’s strategic themes. It will be the basis for developing an M&E plan and will include a manageable set of key indicators of success that can be tracked over time. The tracking system will detail the process and performance indicators and the array of monitoring and evaluation tools to be used by the Centre to enhance and facilitate assessments of progress, planning and decision making, accountability and transparency, learning, partnership arrangements and information collection and sharing. The approach to M&E will be adaptive and will focus on tracking learning and adjusting interventions based on lessons learned. A detailed M&E framework will be developed as part of the implementation of the strategy and will include provision for participatory M&E at all levels from producer to policy maker.

The M&E plan and progress on indicators will be tracked by the senior WALIC staff member employed for this task. Monitoring will not be restricted to results only but will include impact. Results will be shared with all the Centre’s stakeholders and investors, the Board and others as

deemed appropriate. Lessons learned from M&E during implementation of the Business Plan will provide continuous feedback to inform future programme development.

8.4 Risk Analysis and Mitigation Strategy

A risk management plan is a comprehensive description of the steps that will need to be taken to identify, monitor and control organizational risks. Several risks that WALIC might face in implementing this strategy have already been identified. Additional risks will be identified as the Centre advances through its operations.

The risks that WALIC may potentially face in the early stages of its development fall within five major categories:

- **Effectiveness** including impact focus, organizational capacity and partnerships;
- **Efficiency** including restricting duplication, rationalizing costs of goods and services (“value for money”), ensuring sufficiency of resources and the adequacy as well as the functionality of implementation procedures and systems;
- **Financial integrity**;
- **Legal compliance** including stakeholder ownership, political support by ECOWAS, intellectual property rights and relationships and formal agreements with the Centre’s partners; and
- **Safety and security**.

WALIC will complete a detailed risk assessment and develop a risk management plan early in its development. The major steps in developing the plan will be to:

- Identify critical and non-critical risks;
- Document each risk in depth on a standard risk analysis form;
- Log all risks and identify their severity;
- Take action to reduce the likelihood of risks occurring; and
- Propose and undertake actions to reduce the likely impact should the risks become reality.

9. CRITICAL SUCCESS FACTORS

9.1 Responsiveness to the Research and Development Agenda for Food and Agriculture

Development of an R&D agenda that responds to the market and supports the transformation of agriculture as a driver of economic growth is being articulated by the African Union and its partners including NEPAD and FARA. Several other African, regional and national bodies in

the public and private sectors are adopting a similar approach. Being aware of and responding to these new priorities and opportunities will keep the WALIC programme relevant and responsive to the emergence of agriculture as a profitable enterprise in Africa's growing economies.

9.2 Focus on Comparative Advantage

WALIC can be compared to a night light that attracts moths and will enable the conduct and use of livestock research in West Africa. Attention needs to be given to ensuring not only high quality research and development but also facilitating the design of impact pathways and the forming of new partnerships for delivery such that research leads to innovations that have economic impact and benefit African farmers.

9.3 Use of Regional Experts to Complement those of WALIC

WALIC's core staff will be complemented by contracted senior scientists from NARS and universities and others employed in international research institutes. The thus expanded Centre "faculty" will allow a broader and deeper range of research and capacity strengthening programmes to be conducted at WALIC.

9.4 Create and Sustain a Broad Range of Interventions

Ensuring the availability of state-of-the-art interventions across a wide range of technologies is important in WALIC's role as a shared research platform that is also a centre of excellence for livestock biosciences. These technology platforms serve multiple partners and research consortia that address African agricultural issues, but as bioscience are rapidly evolving the platforms will be continually updated to stay relevant.

9.5 Increase Access to WALIC

The Centre should encourage more of Africa's leading scientists and other partners to use its facilities and services to carry out their research. This would in turn ensure optimal use of the facilities available at WALIC's central location in The Gambia.

9.6 Continue Seeking Adequate Funding to Ensure Expansion

Mobilizing additional financial resources will be required to fund the larger geographic area and the expanded mandate of WALIC in comparison to ITC. Forming and maintaining new partnerships with national governments and regional bodies such as ECOWAS and CORAF/WECARD will assist in collating and analysing information and data, capacity strengthening and mentoring programmes for the countries and the region as well as for thematic areas.

9.7 Long Term Financial Stability

Income will derive from a variety of sources including partner research projects, public-private partnerships, investments by African governments, international donors and philanthropic foundations. The Centre needs to be able to cover all its annual fixed costs and maintain a capital fund to invest in the regular upgrading of equipment and technology platforms if it is to become and remain a centre of excellence. Some fixed and capital costs should come from core funding whereas project funding should come from these sources and other financiers including West African Government and philanthropic investors.

10. CONCLUSION

There are new scientific opportunities to address the priority themes that have been identified in WALIC's Strategic Plan in consultation with partners and potential partners. There are also new investment opportunities by African and international partners that will help deliver innovations to increase the productivity and economic development of African agriculture and in particular of West African livestock production based on indigenous domestic animal genetic resources. WALIC offers its science, education, development and investment partners a first class shared research and development platform in the West Africa region. WALIC intends to improve on the impressive track record of high quality research and delivery of bioscience innovations of its ITC predecessor. Livestock development in West Africa will be constrained only by the limits of imagination.

Annex 1. Additional Documents/Reading material

1. The WALIC Strategic Plan

The WALIC Strategic Plan can be downloaded in English and French. Copy the address and paste into your browser.

http://www.itc.gm/html/doc/moreinfo/WALIC_STRATEGIC_PLAN_FINAL_COPY_EDITED_VERSION_ENGLISH_JULY_2013.pdf

http://www.itc.gm/html/doc/moreinfo/WALIC_PLAN-STRATEGIQUE__FINAL-11-10-2013.pdf

2. WALIC Operational Plans

The detailed first year operational plan and the 10-year operational plan (available only in English at this stage) can be downloaded at:

http://itc.gm/html/doc/moreinfo/WALIC_YEAR_1_DETAILED__WORKPLANS.pdf

http://itc.gm/html/doc/moreinfo/WALIC_NEW_OPERATIONAL_PLANS-_FOR_SHORT,_MEDIUM_AND_LONG_TERM.pdf

3. List of Consultation Process and Other Documents

(Available on WALIC website: www.walic-wa.org)

ITC. 2012. Stakeholder and Expert Consultation Workshop for the Development of a 10-year Strategic Plan (2013-20223) for the ‘new ITC’. Workshop Documentation: Kairaba Beach Hotel, Kololi, The Gambia, 6-8 June 2012.

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