COMACO: Design, Results and Analysis

Developing A Sustainable Marketing Strategy for Conservation and Small-scale Farming Households outside Protected Areas in Zambia

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Executive Summary

This report summarizes three years of work by Wildlife Conservation Society (WCS) piloting the ‘Community Markets for Conservation and Rural Livelihoods’ programme, or COMACO, and offers a critique of its strengths and weaknesses as a rural development solution to food security, poverty, and the conservation of vital natural resources in Zambia.

The COMACO design centers on a regional trading centre, called the Conservation Farmer and Wildlife Producer Trading Centre (CTC), and a network of producer trading depots. Under this design, COMACO is able to link literally thousands of poor, food-vulnerable households with interventions that promote improved farming skills, better-paying markets and more environmentally acceptable land use practices. The CTC is run as a business, which is based on a large-volume supply of marketable commodities produced by household-level producers, whose production technologies are consistent with land use practices acceptable to conservation of natural resources.

Household producers are organized into producer groups, which are registered with the CTC on the basis of their commitment to conservation. These groups, in turn, are organized into producer cooperatives and constitute a major share of the CTC shareholdings together with Community Resources Boards, which are legally elected local authorities empowered to manage wildlife and other natural resources. The majority share-holding is held in trust by WCS on behalf of community shareholders. The arrangement requires that all profits of the CTC belong to community shareholders and WCS facilitates the business-management of the CTC to maintain cost-effectiveness, accountability, strategic investments and compliance to the objectives of COMACO.

‘Dividends of ownership’ are paid in the form of increased producer prices. In this way, producer group members see immediate benefits from their cooperation and participation in COMACO. The CTC offers these prices to registered producer groups only if producers comply with conservation commitments prescribed for their area. These price incentives also encourage better farming practices and the adoption of crops that do not increase soil nutrient loss, wildlife or watershed degradation, or food shortages from over-reliance on cash crops. Primary commodities the CTC currently markets include rice, soybean, groundnut, poultry, honey and fish. Combined with the right mix of trainers, trading and marketing personnel, and community leadership to help lead decisions on ways to enhance household compliance to conservation-based land use practices, COMACO reduces poverty, increases food security, and achieves conservation.

To date, WCS has established three CTCs, two in Eastern Province and one in Lusaka Province, with an office in Lusaka to help facilitate accounting, marketing and coordination of logistics and trade. Each CTC operates as a ‘franchise’ to allow it to maintain its own statement of accounts and profitability. Investment for each CTC is modest and prescribes to business plans that are realistic and linked to household livelihood needs, as well as conservation needs, of the area it operates. COMACO does not invite or seek donor dependency or short-term funding solutions. Instead, COMACO is driven by business-minded investments through a range of donor-assisted forms of help that leads to a sustained enterprise approach for improving rural livelihoods and conservation in areas linked to important natural resources.

This report provides a detailed description of what COMACO is, its design and its approach as well as set of results and a critique of these results for future expansion of the COMACO programme. This report recognizes the significant contributions made by Lundazi and Chama District Councils to the establishment of the Conservation Farmer Wildlife Producer Trading Centre and the extensive collaboration of extension worker and agricultural support to COMACO’s more than 1000 farmer groups.
Glossary of Acronyms

ACCBNRM. African College for Natural Resources Management
COMACO. Community Markets for Conservation and Rural Livelihoods
CRB. Community Resources Board
CTC. Conservation Farmer Wildlife Producer Trading Centre
FAO. Food and Agricultural Organization
GMA. Game Management Areas
GRZ. Government of the Republic of Zambia
MTENR. Ministry of Tourism, Environment and Natural Resources
PAM. Programme Against Malnutrition
USAID. United States Agency for International Development
VAG. Village Area Group
WCS. Wildlife Conservation Society
WFP. World Food Programme
ZAWA. Zambia Wildlife Authority
1. Results Analysis and Lessons Learned for Implementing the COMACO Programme

1.1 Background

Community Markets for Conservation and Rural Markets (COMACO) is a programme that helps households living around protected wildlife and forest areas achieve increased food security and increased household income. It does this by offering farmers access to higher-paying markets if they adopt better farming practices. In addition, COMACO uses these incentives to promote improved land use practices and to encourage crops and production technologies that lead to reduced conflicts with wildlife, watersheds and other natural resources. It has operated from 2001 to 2004 in Lundazi and Chama Districts, Eastern Province, and has demonstrated a novel but highly cost-effective way of improving household livelihoods while also achieving important conservation results.

As a rural-based business enterprise, COMACO works through a regional trading centre, called the Conservation Farmer Wildlife Producer Trading Centre (CTC), which facilitates increased producer prices and lowered transaction costs for rural communities seeking markets for their locally produced commodities. Linked to the trading centre is a network of producer depots that coordinate a range of services, including bulking, trading, skills development, dissemination of market information, and extension services. Associated with each depot are producer groups that are organized into a local cooperative set up by the community’s local Community Resources Board. This level of community organization at the household-level allows the Community Resources Board, a statutory resource management authority, to more effectively gain household cooperation with their own efforts to develop and implement land use plans for their area. This, in turn, results in increased production of natural resources by reducing levels of threats or degradation caused by destructive land use practices.

Wildlife Conservation Society developed the COMACO model in partnership with Zambia Wildlife Authority, District Councils, and Community Resource Boards through the assistance of World Food Programme, Programme Against Malnutrition, and the Food and Agricultural Organization. COMACO has now reached a level of impact and scale of operations to warrant serious efforts to integrate the COMACO approach into rural areas where important wildlife and watershed resources exist.

This critique provides a detailed analysis of COMACO where it has operated as a pilot programme in Lundazi and Chama Districts since 2001. The discussion from these results examines COMACO’s contributions to rural markets, its strategies and rationale for diversifying markets, and its impact on livelihoods and natural resources. The critique also provides a balanced appraisal of the COMACO design based on lessons learned from its implementation during the initial pilot phase.

1.2 COMACO Design

The COMACO design is adapted to a scenario where a significant portion of households living in wildlife-sensitive areas face regular shortfalls in farm-produced food. This is not unusual for many parts of rural Zambia. Few options exist for many of these families to compensate their food shortages other than using game meat, obtained usually by snaring, to barter for maize or sorghum with more food-secure households. Under this scenario, low household income also contributes to illegal dependence on wildlife, large-scale conversion of trees to charcoal and loss of local fisheries through water poisoning and over-use of under-sized nets. The consequence of these livelihood needs on local resources undermines long-term management efforts to sustain income from tourism and legal harvests of natural resources.
The COMACO design focuses its interventions on developing household skills to improve food production, sustaining community commitment to better farming practices through higher paying agro-markets, and using household compliance to land use practices that are conducive to wildlife production and natural resource management as a condition to accessing these better markets.

1.2.1 Process for implementing the COMACO design

- **Survey and assess household income and food security.** This establishes a baseline to plan markets and training interventions and to evaluate the impact of COMACO on household livelihood. It also provides the basis for selecting household participation in COMACO’s support activities.

- **Achieve food security among households selected as food-impoverished.** This step involves a number of interventions designed to increase production of food crops and secondarily, cash crops. Initially in the program, only food-impoverished families are selected because they generally represent the greatest threat to natural resources. Included in this step is the formation of farmer producer groups, who will become the primary producers and beneficiaries of the CTC.

- **Formulate community-based land use plans that promote better farming methods and land use practices conducive to wildlife production and other conservation objectives.** Community leaders help lead this process with facilitation and input assistance from COMACO. Land use plans are simple and target village groupings, called Village Area Groups or VAGs, based on their own decisions to reduce or eliminate key threats affecting natural resources in their area.

- **Facilitate increased farm producer prices through a network of rural trading depots linked to a regional trading centre.** The CTC has qualified staff and the necessary tools to develop improved market linkages with the trading depots. Increased producer prices develop through a combination of better trading partners and marketing processed, packaged products with labels that attract consumer interest in the social and environmental benefits associated with these products.

- **Make household compliance to the adopted land use plan a condition for receiving trade benefits from the trading centre.** This step requires an effective network of reliable community trainers and COMACO extension staff to verify compliance of land use plans by producer group members. This information is maintained at the producer depot and limits trading and increased producer prices to only those registered producer groups who comply with their community’s land use plans.

- **Formalize the regional trading centre into a shareholder-owned registered company to increase community-wide support for trade in products that enhance conservation success.** COMACO facilitates community shareholder ownership of the CTC as a limited registered company. This increases the potential for profit dividends paid back to producer depots in relation to relative production and profit levels and compliance to land use plans.

- **Manage the trading centre as a self-financing business for sustaining farmer commitment to improved land use practices and increased food security.** Trading levels grow and generate the necessary information to develop business plans and strategic planning decisions for longer-term self-financing by the CTC. This step is an on-going one that continues to build improved producer prices for a growing set of products that help sustain food security, household income and improved conservation of natural resources. Product range from agricultural cash crops to non-timber forest products to tourism-based ventures.

- **Develop improved market opportunities at both the national and international level.** In seeking improved producer prices for registered CTC producer groups, the CTC will need to
develop new products as driven by national and international markets that offer the best prices for goods and services supplied by producer groups. Facilitating the development of such products and their markets requires a Lusaka-based office to provide technical and business skills to the growing number of CTC branches seeking better markets.

1.2.2 Organizational structure to implement COMACO process

Experiences in the pilot area have shown that the above process requires an organizational structure based on full community participation that achieves a strong linkage between food security, markets and conservation. The primary community partners that COMACO works with are the Community Resources Boards (CRBs), which are statutory boards with legal authority to manage wildlife resources in their respective areas, and registered producer groups. As democratically elected leaders with legal responsibilities to manage wildlife resources, most CRBs are taking pro-active measures in their area to manage all natural resources, including forest and fisheries resources. This makes them the ideal partner to facilitate the COMACO approach in their respective communities.

Central to the COMACO organization is the trading centre (CTC), which is a community, shareholder-owned company. The diagram below illustrates the basic linkages between food security, markets, community participation and the CTC in the COMACO design. Figure 1 (page 11) provides a more detailed description of the organizational linkages COMACO has developed in terms of community relationships with the CTC.

1.2.3 Community Trading Centre

An important assumption of the COMACO model is that rural communities do not have the skills or capacity to manage a company that markets produce at prices more favorable to local producers and on the scale envisioned by COMACO. COMACO responded to this constraint by developing a company that is owned by the community but operated by qualified managers who are not limited to residency from within the community. Its organization is given in Figures 2 and 3 (pages 12, 13).

1.2.3.1 Mission statement for the CTC:
To transform entire communities to more successfully lead and support land use practices that promote food security, improved household incomes, and increased conservation of natural resources.

1.2.3.2 Vision Statement:
As shareholders in the economic benefits of the CTC, local residents maintain healthy, functioning natural landscapes while achieving food security and improved household incomes, thus providing Zambia an exemplary model for rural development.

1.2.3.3 Shareholders of the CTC
CTC is a shareholder-owned limited company for profit. This status may change in the coming months to re-designate its status as a limited company for non-profit, since the idea is to return profit to the producers in the form of increased producer prices.
Currently, WCS holds a majority share in trust on behalf of producer communities to enable it to maintain management control over key decisions during CTC’s early years of formation and as community compliance to conservation is better assessed. Current shares are as follows:

1. **Local communities:** Producer groups (e.g. farmer groups) organized into a Producer Group Cooperative (20% share), and the CRB (20% share). These two entities are collectively responsible for the management and protection of local natural resources. The local Traditional Ruler is a Patron of the CRB.

2. **Lundazi District Council:** Administers government policy for district development and has District-level oversight on natural resource management and land use planning. (9% share)

3. **Wildlife Conservation Society:** Financial, technical and administrative partner to help achieve CTC’s vision and holds a majority 51% in trust on behalf of local communities until key benchmarks of COMACO’s success are achieved. A Development Agreement is signed among the shareholders requiring:
   - This 51% share be used exclusively in the District for the benefit of Producer Groups, reinvestment in the CTC or improved management of natural resources
   - Cost/Profit statements are audited and reported to the shareholders at the end of every year.

COMACO uses the concept of profit dividends to reward shareholders, specifically producer groups, for their compliance to conservation by offering measured increases in producer prices for the commodities they produce. These increases may be variable to allow additional incentives when specific targets or conservation objectives are sought. For example, a family selling rice will receive a 28% increase in price if the family is a member of registered producer group but will receive a 32% increase if the family also achieves food security from their production of a food crop such as maize or sorghum. By sustaining food security with such incentives, the incidence or need for snaring wildlife, for example, declines.

**The bottom-line criteria for COMACO’s success is not to maximize CTC’s profits but to achieve conservation success and promote food security in rural areas while sustaining CTC’s costs.** COMACO, therefore, bridges community development and conservation with a business-driven approach. Because COMACO has the capacity to leverage improved natural resource management practices on a large scale at much reduced costs than is possible by reliance on enforcement of regulations, the CTC can significantly reduce management costs borne by Government. It also reduces the need for Government to spend large sums for poverty reduction, agricultural extension, and so forth, while increasing private sector opportunities to invest in tourism. If the CTC were to run at a loss, which is a possibility future years of CTC operations may reveal, Government would still serve its own interest by helping subsidize the CTC. COMACO’s approach is not to sacrifice conservation objectives for profitability. Ideally the CTC will make a profit as volume and diversity of goods sold increase, as data from COMACO’s initial pilot work would suggest. For the immediate future, three to five years, the CTC will continue to be subsidized by WCS, and hopefully by the Zambian Government. As such, COMACO and the CTC is an NGO-led initiative that is building a private-sector model for rural development and conservation. As the CTC builds capacity to manage trading and market activities with firm adherence to COMACO’s objectives, the reliance on an NGO will diminish and increased leadership by its shareholders will emerge to evolve the CTC into a fully community-owned enterprise.
1.2.3.4 Key staff positions of the CTC

One of the most important determinants of a successful CTC is to select people to its senior positions of management who are from within the Province, who are honest, intelligent and hardworking and can respect rural leaders and community members, and who have a firm belief in the ideals and objectives of COMACO. Finding such people requires a careful selection process WCS has been fully engaged in. Upon finding suitable candidates, people’s skills and personalities then need to be matched with the various key positions listed below. In most all cases, there is a period of intense capacity-building, a process supported by WCS. An incentive to apply skills and provide continued self-learning efforts is the use of salary and job-title promotions when job performance warrants.

- **CTC Manager.** Has overall responsibility to build a strong management and administrative team for executing the full range of activities needed to support each depot linked to that CTC with services and producer prices consistent with COMACO’s objectives. Such a person must develop a strong team of loyal staff to whom he/she can delegate responsibility, provide advice, give instruction, listen and gain understanding from, and maintain fixed timetables of management and business targets. The CTC Manager is articulate and able to attend District or Provincial-level meetings and present CTC results and impact to Government authorities.

- **Livelihood Extension Coordinator.** This person and related staff fall under WCS payroll since it is not a core-business activity the CTC is able to sustain under its obligation to maintain a favorable cost/profit statement for its shareholders. Nevertheless, the position is a crucial component of the CTC, given the fact this person together with support staff have the following responsibilities:
  - mobilizes community understanding of COMACO,
  - oversees formation of producer groups and their registration process, compliance to group by-laws, community land use plans and compliance to these plans, etc.
  - directs the development of producer group skills needed to acquire alternative livelihoods and income sources through the CTC,
  - monitors with verifiable indicators the CTC’s impact on food security, household income and natural resource conservation,
  - coordinates these results with local and provincial authorities, and
  - advises the Manager on ways to improve COMACO’s performance through the work of the depot staff, CRBs and traditional leaders, District authorities, and so forth.

- **CTC Deputy Manager.** Depending on the need and financial capacity of the CTC, there may be more than one Deputy Manager, whose primary function is to specialize on various tasks as assigned by the CTC Manager. At the Lundazi CTC, for example, the CTC has two Deputy Managers and their responsibilities, respectively, are:
  - Directs product processing and marketing arrangements of finished products as well as coordinates truck dispatches and oversees vehicle workshop
  - Maintains supervision of depot staff, depot activities and CTC investments in a community for new CTC joint-ventures.

- **CTC Chief Accountant.** This person is a qualified accountant and financial controller for the CTC and all related activities as supported by WCS. The person is accountable to a Senior Accountant in Lusaka for preparing CTC cost/profit statements, retirement of receipts for funds provided on a grant basis, and maintaining compliance to CTC-approved budgets.

- **CTC Data Analyst.** This person ensures all data pertaining to COMACO activities and indicators are maintained in a centralized data manager for assisting with the analysis and interpretation of COMACO impact. The primary objective of this position is have a person qualified to integrate data on CTC sales and market trends with data on livelihood and conservation impact.
Figure 1. CTC - Trading Depot - Community Linkages

- Village Area Group (VAG) Committee
- Community Coordinator
- Trading Centre (CTC)
- Producer Groups: Farmers, bee-keepers, poultry producers, fishermen, etc.
- Traditional Rulers
- Community Resource Boards

Co-manages wildlife with Zambia Wildlife Authority and receives revenue shares from sale of licenses and fees. Revenues used to support resource management costs and benefits to the community.

Reduces threats to wildlife and thereby increases wildlife production and income for CRB.

1. Unit of commercial production for commodities purchased/traded by CTC
2. Provides information on market prices
3. Coordinates training and extension support for new livelihood skills
4. Trading link with CTC
5. Provides direct link to households through producer groups
6. Promotes compliance to conservation targets by producer groups

1. Advertizes products produced by producer groups
2. Links producer groups to best paying trading partners with community trading depots
3. Facilitates training programs through the trading depots
4. Invests in sound business enterprises proposed by producer groups
5. Supports community land use plans
6. Leverages funds for rural development through a market approach to poverty reduction
7. Coordinates all trading depots as a regional trading block

1. Supervises the depot manager
2. Facilitates community needs through CTC
3. Encourages VAG shares invested in producer groups needs
4. Facilitates producer group formation
5. Directs trainers in alternative livelihood skills

1. Advertizes products produced by producer groups
2. Links producer groups to best paying trading partners with community trading depots
3. Facilitates training programs through the trading depots
4. Invests in sound business enterprises proposed by producer groups
5. Supports community land use plans
6. Leverages funds for rural development through a market approach to poverty reduction
7. Coordinates all trading depots as a regional trading block
Figure 2. COMACO’s functional relationships between key community participants and CTC staff
1.2.3.5 Stakeholders (Institutions and private sector supporting the success of the CTC)

1. Zambia Wildlife Authority (ZAWA)
2. World Food Programme (WFP)
3. Food and Agricultural Organization (FAO)
4. Canadian Development Fund
5. Programme Against Malnutrition (PAM)
6. Government (GRZ), relevant ministries
7. Tourism companies and safari operators

1.2.3.6 Objectives of the CTC

1. Reduce rural poverty as a major cause of environmental threats
2. Provide market incentives that promote alternatives to illegal, destructive land use practices.
3. Increase food security through improved farming techniques and crop varieties.
4. Support CRB land use plans.
5. Mobilize households as members of producer groups registered with local trading depots and linked together as a regional trading block operating through the CTC.

6. Support family planning and family health as an integral part of COMACO’s commitment to improved rural livelihoods through fair markets.

7. Support community-managed grain banks as a key component to community land use plans to reduce the potential for hunger-related threats to natural resources.

8. Enhance community skills needed by households to produce products the CTC markets.

9. Offer fair, competitive prices for all goods the CTC purchases from member trading depots.

10. Operate at a profit to sustain the CTC’s mission.

1.2.4 Key positions held by community members

These positions are reflected in Figures 1 and 2 include the following:

1.2.4.1 Community Coordinators
supervise and direct the activities of 5 to 10 community trainers in alternative livelihood and commodity production skills and who also assist in the development of producer groups, their compliance to by-laws and land use plans, and communication about COMACO with community leaders.

1.2.4.2 Depot Managers
manage the community producers’ depot in terms of bulking commodities, liaising with the Community Coordinators on training programs by the community trainers, dissemination of market information and conducting community transaction of sales, and deliveries of inputs with producer groups.

1.2.4.3 Producer Groups
represent the primary source of commodities for trading and the key focus for increasing food security and household income.

Producer groups must register with their local community trading depot before they are able to sell their goods to the CTC. This is to ensure producer group members adopt production or harvest technologies that improve food security and household income without degrading their natural resources. This level of compliance requires considerable training and continued reinforcement by local leaders, depot managers and even producer group leaders. The CTC also feels it is important to make a symbolic gesture toward this compliance by surrendering snares (e.g. in wildlife areas like game management areas) to demonstrate households are serious about abandoning a practice that threatens their wildlife resources. There are other important ways producer groups can demonstrate their commitment to conservation. For example, bee-keeping producer groups could commit themselves to refrain from any future harvesting of wild bee hives where the need for tree-cutting or the risk of starting bush fires arises.

1.2.5 Becoming a registered producer group

The CTC does not limit its trading to only farmer groups that start out as poor farmers, though initially COMACO does target food insecure farmers. As the programme develops and as other more qualified farmers see the benefits of trading with the CTC, these farmers will also want to become a registered producer to gain access to the CTC benefits. COMACO requires such farmers to organize themselves as a group and meet
key requirements in the short term while honoring other commitments over the longer
term. For the short term, the CTC requires such farmers to meet the following short-
term requirements to become eligible to sell their crops to the CTC:

- Mobilize not less than 10 farmers into a group
- Elect leaders of the group
- Agree on by-laws that govern the group and make clear commitments to
conservation needs of their area
- Surrender not less than 10 snares per group or a comparable gesture of
conservation support
- Members spend a few hours discussing results and techniques of conservation
farming at a successful conservation farm prior planting next year’s crop.

With such compliance the CTC would recognize such groups as eligible for registration
provided they also agree to the following conditions over the longer term:

- All group members undertake training in conservation farming and composting by an
authorized trainer from a nearby farmer group.
- All group members pledge not to burn their fields and undertake regular weedings of
their fields.

1.2.6 Procedures for producer group registration

Under these conditions, the depot manager can register a group to trade with the
CTC without losing sight that the primary reason for registration is to enhance
farming practices that help improve food security and reduce threats to surrounding
natural resources. The community coordinators, depot managers and CRB leaders
work together to help convince farmer groups that the benefits of being a registered
group far outweigh not participating in the market opportunities the CTC offers.

Because farmer group compliance to improved farming methods and land use
practices is an essential requirement for achieving COMACO’s livelihood and
conservation objectives, COMACO is in the process of introducing a certificate
programme that authenticates a group’s compliance to registration guidelines
and the group’s full entitlements to CTC services and trade benefits. This will
help formalize the commitments by producee group members to honor its
respective obligations.

1.2.7 Defining a producer group

The idea of a producer group may be confusing. In general, COMACO refers to
“farmer” groups instead of “producer” groups. This is because most everyone
farms. The point COMACO is promoting is that farmers are producers and if they
have the right skills they can produce enough to be food secure. Furthermore, if they
are food secure with improved farming skills, they are more likely to grow a cash
crop for added income. Such people tend not to set snares and wildlife can thrive
in nearby areas where habitat conditions are favorable.

Not all producer groups will be farmer groups, since some people may want to focus
their skills on non-farming activities. For them to benefit from the CTC, they still have
to register their group with the CTC and adopt production practices not in conflict
with their communities land use plan. In this way the commercial benefits from the
CTC encourages production or harvest practices that promote improved
management of the natural resources they utilize. Bee-keeping groups and fishermen groups are two good examples and the depot manager should actively cultivate the formation of such groups so as to enhance the conservation of forests and fisheries resources.

COMACO does not preclude or discourage a producer group from expanding their interests into multiple livelihood skills or income sources. A producer group registered with the CTC through its depot could, for example, be a farmer group compliant with conditions to market their farm surplus to the CTC. But they could produce and sell honey to the CTC, provided they meet criteria of good bee-keeping practices, like non-collection of wild honey that often lead to fires and tree loss.

1.2.8 Conditions for registration are as follows:

- Membership requirement: COMACO encourage of group size of between 10-20 people. This encourages peer confidence-building and sharing of skills.

- By-laws: A written pledge that defines what commitments group members will make for the conservation of natural resources, codes of discipline for group members (regular attendance of group meeting, how often group members meet, positions in the group, and so forth. A copy is kept by the depot manager, on behalf of the CRB, as a pre-requisite for group registration. All group members must sign this pledge and honor it as responsible members of the community.

- Office-bearers. The group must elect a Chairperson and a secretary. The Chairperson should be literate to represent the group at trainings and to share information with other group members.

- Minimum conservation compliance contained in the by-laws:
  - Farmer groups:
    1) practice conservation farming
    2) abandon the practice of burning refuse on farm fields
    3) practice compost to maintain soil fertility and by using wildlife manure, it adds value to wildlife
    4) abandon the use of snares
  - Fishermen groups:
    1) abandon the use of snares
    2) use only nets with mesh size of 3 inches or above used
    3) compliance to land use plans that may zone fishing areas
    4) establish fishing areas that do not interfere with animal movements or disturb successful safari hunting or tourism is in their area
    5) control of fires to avoid the spread of bush fires
  - Bee-keeping groups:
    1) abandon the use of snares
    2) stop wild honey gathering because it contributes to bush fires, tree-cutting and disturbances to safari hunting or tourism
    3) extinguish bush fires in areas of honey production
    4) maintain sole reliance on bar hives or bark hives for honey production
1.2.9 Who registers a producer group?

Once the above conditions are met, the group leader shall present himself to the depot manager and arrange a meeting with the VAG chairperson or CRB member to fill out the necessary form for registration. This step shows that the trading depot, on behalf of the CTC, recognizes the group as a potential source of commodities for marketing and that the local leadership recognizes that group members have committed themselves to conservation pledges.

1.2.10 Local District Council

The local District Council is an important component to the COMACO organization and provides legal and technical support to the activities COMACO undertakes. Within the Council are representatives from the Forestry Department, Zambia Wildlife Authority, Fisheries Department, Agricultural Department and so forth. Technical trainers are called upon from the Council to help support producer group skills. COMACO encourages district authorities to link their development programs to the household-level structure of producer groups and producer group cooperatives COMACO has helped to put into place. Such cooperation and synergy with other partners in the District contributes to COMACO success.

1.3 COMACO pilot scheme in Lundazi/Chama Districts: Overview

The COMACO pilot scheme extends from the floor of the Luangwa Valley on the eastern bank of Luangwa River to the plateau regions of Lundazi and Chama Districts (Figure 4). Initially, interventions were limited to the game management areas (GMAs) along the Valley floor but later expanded to include selected communities on the plateau side. COMACO’s scale of interventions allows this model to test ways to resolve landscape or ecosystem-level conflicts that threaten such key resources as wildlife, watersheds and soils. Satellite images of COMACO’s pilot area (Figure 5) help visualize some of the major environmental challenges in the pilot area. These challenges are summarized below:

- Cotton and tobacco farming is increasing in the Luangwa Valley catchment area and is contributing to degraded watershed resources in this area. This is due in part to lack of alternative cash crops and to the economic benefits derived from cotton and tobacco. Farming practices associated with these crops lack controls needed to maintain soil fertility (as well as safety standards for applying toxic chemicals). This, in turn, contributes to increased land clearing. Consequences on the landscape include frequent flash floods, crop losses down river, fisheries losses and declining watertables.
- As a result of poor soil management, pressure to open virgin forestland, including land in the National Forest along the Luangwa escarpment hills, is reducing total hectares of watershed resources necessary to maintain a healthy valley ecosystem of flowing rivers and year-round spring-fed sources of water for both wildlife and human settlements.
- Emphasis on cash crops, particularly cotton, often result in less time available to farmers to grow sufficient food, resulting in lowered food security and often increased dependence on illegal use of such resources as wildlife to compensate.
- Chitemene (or slash and burn) is a common practice among people living on the plateau region of the Luangwa Valley watershed and as human numbers increase this practice contributes to high annual rates of tree clearing. Prior to COMACO, there existed no structured agricultural marketing scheme that rewarded farmers to use low-cost inputs such as lime or improved farming methods like conservation farming to reduce this threat.
- A significant number of people who illegally hunt wildlife in the GMAs and national parks of Luangwa Valley are poor farmers from the plateau who have failed to grow enough food and lack reliable sources of income.
• Burning of crop residues after harvest contribute to fires that spread into adjacent areas. Similarly, the collection of wild honey, which often requires burning, contributes to uncontrolled bush fires. Both sources of fires degrade wildlife habitat and watershed resources.
• Community organization and understanding are inadequate to address local efforts to manage local resources effectively and sustainably.
• Government resources to enforce resource management laws and maintain sufficient presence in rural areas to promote community commitment to better land use practices are grossly inadequate.

Prior to COMACO interventions, communities in the pilot area, particularly those living in the Luangwa Valley, lacked reliable markets that offered fair prices for farm goods they produced. Small traders offered exploitative prices, either as cash or in exchange for bartered goods. Despite the hard labour of producing goods by residents in these areas, prices were extremely low and kept producers in a nearly perpetual state of abject poverty, as the livelihood results will present in the following section. Exceptions were largely cotton and tobacco, crops that foreign-based companies supported with inputs and a reliable market. Without alternatives, farmers serious about farming as a source of income relied largely on these crops. Many small-scale farmers lacked skills and inputs and with few incentives from better-paying markets, sought other means to complement their farm harvests. These alternatives often proved destructive to their natural resources. Poor farmers in the Luangwa Valley often resorted to fishing, for example, and again because of poor prices for fish, they would normally use small-sized nets to maximize their catch to earn as much money as possible. These fishing pressures have now reduced fisheries production in Luangwa River and a potential source of sustained income for the District.
In summary, the marketing and environmental scenario found in the project area helped to generate two hypotheses which contributed to the conception of the COMACO model.

**Hypothesis 1:** Poor subsistence farmers unable to grow enough food cannot contribute to the positive production of wildlife and other natural resources in their area.

**Hypothesis 2:** Agricultural markets that promote fair prices and environmentally correct crops can contribute to positive land uses in support of positive production of wildlife and other natural resources.

1.4 COMACO results in the pilot area: a review of COMACO process

The COMACO pilot scheme in Lundazi and Chama Districts has operated for three years and has provided a strong foundation of experience and lessons for implementing the COMACO approach. Furthermore, the scheme has enabled WCS to test its effectiveness in achieving an improved synergy between markets and agriculture as a basis for improving land use practices and achieving conservation results. This section examines the progress made thus far for each of the seven components defined as part of the COMACO process.

1.4.1 **Livelihood Survey.**

   Initial household survey in 2001 sampled 1065 randomly selected households from 5 different GMAs in Luangwa Valley. The five most common sources of household income...
were poultry, rice, ground nuts, beer and fish from a total of 56 potential income sources. Individuals who owned or operated grinding mills or small shops earned the highest income. In contrast, poultry ranked 34 in terms of income earned while rice, ground nuts, beer and fish ranked 19, 20, 23, 10, respectively. Cotton and private sector employment earned the highest per capita income (K277,179, K352,460, respectively) for the largest number of respondents sampled (14.8%, 14.0%, respectively). Tourism-related enterprises for selected VAGs (almost exclusively Mukasanga) accounted for most of the employment income. On average, annual income for male respondents was K207,920 and female annual income was K73,623. Contributing factors to low income were lack on farm inputs, poor markets, low prices, inadequate skills and technologies to increase production or diversify income sources.

98.5% of the households interviewed grew maize and represented by far the most important food crop grown in Luangwa Valley. Rice and sorghum were secondary but important food crops. Average quantity of staple foods produced per household for 2000 was 1188.7 kg.

Food security was expressed as number of months a given household had sufficient food for all members of the family. In 2000, 28.2% of sampled households were food secure only through the ninth month. In 2001, 56.7% were food secure through the same period and only 34% were food secure for the entire year. The high, but variable levels of annual food shortages reflected a chronic food security problem in Luangwa Valley. Based on interviews with farmers, common factors cited for this problem were erratic and extreme rainfall patterns, poor soils, poor quality seeds, crop damage from wildlife, lack of financial incentives to be better farmers, and lack of farm inputs. Also revealed during these interviews was the high dependence on wire snaring to obtain game meat as means to barter maize or sorghum from more successful farmers. Estimated annual loss of wildlife from snaring in Luangwa’s GMAs was estimated in the 3000-4000 range.

1.4.2 Food security.

WCS recruited the support of World Food Programme to use supplementary maize support to help commit a family’s time to learn and practice improved farming practices, especially the adoption of conservation farming and composting. Families were chosen to participate on a voluntary basis and on the basis of verified food shortages. They were also asked to organize themselves into farmer groups to facilitate the reinforcement of their new skills and to encourage each other to abandon snaring as a basis for meeting food shortfalls. If families wanted to continue receiving WFP maize support throughout the growing season, each group was asked to surrender a minimum of 15 snares or one firearm. Over the ensuing three years from 2001 to 2004, the “food-for-better-farming” initiative engaged over 16,000 households to participate in a one-year opportunity to receive free maize to learn better skills and become food secure. During this period, the programme extended across most of the GMAs in Eastern Province as well as areas in Luangwa and Mpika Districts, covering over 24,000 km².

Though 2004 food security results are at a preliminary stage of analysis, the overall picture of data analyzed thus far makes the key lesson learned from this experiment quite clear: Farmers unable to grow enough food to feed themselves in wildlife areas cannot contribute positively to wildlife production, whereas good farmers who are food secure can contribute positively. Other variables certainly influence wildlife production as well, but for the first time, Zambia now has a study that examined the potential cause-and-effect relationship between food security and wildlife production through the influence of snaring.
Table 1 shows the magnitude of increased food security and adoption of better farming practices achieved in the project area, namely GMAs north of Sandwe. By the end of the 2004 farming season, the initiative had engaged over 16,000 households, with well over 50% achieving food security during their first year of involvement in the programme.

Data in Table 2 revealed that second year participants in the programme, who were not eligible for WFP maize assistance, remained compliant with using farming skills they learned the previous year.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lundazi</td>
<td>1,250</td>
<td>79%</td>
<td>85%</td>
<td>68%</td>
</tr>
</tbody>
</table>

1.4.3 Land use plans.

Luangwa Valley has limited arable farmland and with a growing human population, major challenges exist to use the land without degrading local natural resources like forests, fisheries and wildlife. WCS used its food security interventions as an entry point to build community understanding and cooperation in meeting these challenges. It reasoned that households would more likely cooperate with discussions on finding solutions to local resource use conflicts if efforts to curb hunger in the area were undertaken first. As efforts continued to sustain improved food security, COMACO began facilitating community-led land use plans for each Chief’s area. These plans linked household needs to both markets and agricultural production under the criteria that they contribute to healthy watersheds and productive wildlife populations. Figure 3 shows the GMAs where COMACO activities were undertaken in Luangwa Valley and where land use plans were developed.
COMACO adopted a community-led approach involving Community Resources Board members and village leaders to develop maps and written resolutions with broad consensus on key steps the community could take to reduce human conflicts with wildlife and other natural resources. These plans also specified community acceptance of farm practices best suited for agriculture to increase yields while reducing potential conflicts with wildlife and forest management. COMACO formalized these results into map formats shown below.
An example of a Community-based Land Use Plan Map presented for each Village Area Group in both English and local language.
Detailed map illustrating information compiled by local community authorities for preparing land use plan.
1.4.4 Increased producer prices.

COMACO assisted participating communities to locate and establish local trading depots where farmers could more easily bulk their produce and conduct local transaction arrangements while having a more central location for receiving inputs and learning improved production skills. These depots reduced transaction costs by facilitating sales within the community. Otherwise individuals would typically have to seek more costly ways of finding markets on their own. Ensuring onward transit of farmer goods to better-paying markets required an efficient way of collecting large enough volume of good quality commodities to attract higher paying trading partners. COMACO did this by establishing a regional trading centre in Lundazi with qualified staff and the necessary equipment to help link higher paying markets with local trading depots. By 2004, the Lundazi trading centre, called the Conservation Farmer Wildlife Producer Trading Centre, or CTC, had a network of 14 depots and was servicing over 8500 households organized into over 600 registered producer groups over an area of about 14,000 km². The diagram below illustrates the network of trading linkages:

By early 2004, the COMACO trading centre had substantially increased producer prices, which has provided a strong incentive to adopt improved production methods, including conservation farming, better husbandry practices for poultry and adoption of bar hives for producing honey. The table below shows prices for farm commodities that COMACO currently offers in contrast to prices prior to COMACO interventions. Closer trading links with Lusaka trading partners and improved processing of raw commodities into packaged products have facilitated increased prices for producers. COMACO has also
invested in commodity diversification, including fish, soybeans and community-based tourism. Table 3 provides the details.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>Pre-COMACO prices (2002)</th>
<th>2004 COMACO prices</th>
<th>Projected 2005 COMACO prices</th>
<th>% increase from pre-COMACO prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>kg, unpolished</td>
<td>ZMK 600</td>
<td>ZMK 950</td>
<td>ZMK 1,000</td>
<td>36.8%</td>
</tr>
<tr>
<td>Chicken</td>
<td>adult-size, one</td>
<td>ZMK 5,000</td>
<td>ZMK 9,000</td>
<td>ZMK 9,000</td>
<td>80.0%</td>
</tr>
<tr>
<td>Honey</td>
<td>kg</td>
<td>ZMK 1,200</td>
<td>ZMK 2,000</td>
<td>ZMK 2,500</td>
<td>108.3%</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>kg, shelled</td>
<td>ZMK 950</td>
<td>ZMK 1,200</td>
<td>ZMK 1,400</td>
<td>47.4%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>kg</td>
<td></td>
<td></td>
<td>ZMK 1,000</td>
<td></td>
</tr>
<tr>
<td>Commodity not traded by CTC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>kg</td>
<td></td>
<td></td>
<td>ZMK 1,200</td>
<td></td>
</tr>
</tbody>
</table>

1.4.5 Land use plan compliance and access to trade benefits.

A key element to COMACO’s effectiveness in leveraging conservation results is its higher producer prices relative to competing traders, whose prime business objective is to maximize profit. In the case of COMACO, the prime objective is to share as much of the profits with producers in order to “bargain” for their cooperation in complying with land use plans and wildlife protection laws.

The basis for leveraging this household cooperation is to make these increased producer prices available upon compliance with the following conditions:

- Producers be members of registered producer groups whose by-laws forbid the use of snares, burning of fields, waterhole poisoning or illegal hunting
- Farmers use of conservation farming for bulk food production (e.g. maize) to improve soil fertility and reduce bush fires
- Farmer comply with the Community Resources Board land use plan

COMACO facilitates community understanding and awareness of these conditions by assisting the Community Resources Boards to post this information on their respective trading depots within the community, as illustrated below. As producers come to sell their produce, depot staff are trained to educate community members about this information, and community trainers monitor household compliance to these conditions.
1.4.6 **Formalize trading centre into a community shareholder-owned company.**

WCS established the first trading centre in Lundazi in 2002, called the Conservation Farmer Wildlife Producer Trading Centre or CTC, supporting 16 community trading depots in Chama and Lundazi Districts. It is currently opening a second branch of the CTC in Mambwe, which will be fully operational in 2005 and a third branch in Luangwa District is under construction.

In 2003 WCS engaged a Lusaka-based legal team to facilitate the registration of the CTC into a limited company with community shareholdings starting at 40%. The majority share, 51%, is held in trust by WCS, which will divest these shares as local authorities demonstrate capacity and commitment to the conservation goals of COMACO. A minority share is held by the local District Councils, which provide important leadership and oversight on district-level issues. Meanwhile, all profit dividends realized through the shares held by WCS are returned to communities where profits were generated.

In 2004 WCS engaged a team of economists and business consultants to work with the CTC staff to help develop a long-term strategic business plan for the CTC, skills and methodologies for generating end-of-year annual cost-profit statements for shareholders, and improved capacity to undertake market feasibility studies.

The pictures below show the CTC in Lundazi and one of its product processing rooms and a package of its 2kg polished rice product. All of COMACO’s products are registered with individual bar codes and are labeled under the trademark name of **It's Wild!** and certified by WCS as a wildlife conservation product.

The Conservation Farmer Wildlife Producer Trading Centre in Lundazi currently markets or is developing markets for the following processed farm products: packaged rice (see above picture), bottled honey, groundnut cooking oil and peanut butter. It is also developing an expanding village chicken poultry market and will launch three community-based tourism bush camps in 2005.
1.4.7 Manage the trading centre as a self-financing business

WCS has made the following investments to help develop the trading centre as a self-financing business for sustaining farmer commitment to improved land use practices and increased food security:

- Recruitment of two business interns to provide on-site training of Zambian managers of the trading centre
- Development and procurement of necessary computer business and data management software to produce end-of-year cost/profit statements and detailed trading transaction at each depot to monitor changes in household income and changes in commodity production
- Critical assets to operate a large-scale trading enterprise for farmer support through local trading depots, including: 5 trucks, 1 truck trailer, 6 computers, rice processing machine, peanut butter processing machine, and an oil press machine.

The dramatic improvement in producer prices for rice (Table 4), which is currently the largest traded commodity by volume for farmer groups in the Valley, demonstrate the potential for the trading centre to become not only self-financing but to significantly impact on improved land use practices.

<table>
<thead>
<tr>
<th>Table 4. Trends in CTC pricing of rice.</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local trader valued producer price (per kg), pre-COMACO</td>
<td>ZMK 700</td>
<td>ZMK 750</td>
<td>ZMK 780</td>
<td></td>
</tr>
<tr>
<td>COMACO price</td>
<td>ZMK 820</td>
<td>ZMK 950</td>
<td>ZMK 1,000</td>
<td></td>
</tr>
<tr>
<td>COMACO Lusaka-based selling KG price (packaged)</td>
<td>ZMK 3,000</td>
<td>ZMK 3,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMACO Chipata-based selling KG price (50 kg bags)</td>
<td>ZMK 2,000</td>
<td>ZMK 2,050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traded volumes with CTC (tons)</td>
<td>120</td>
<td>350</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Rice is now sold competitively with cotton and in areas where both crops are grown, farmers are switching from cotton to rice. A contributing factor is the high labor cost to growing cotton. Farmers switching to rice are able to grow sufficient food and a recently completed study by WCS shows a strong correlation between food security and rice growers versus farmers who rely on cotton for income.

The higher premium prices offered by the CTC is a reflection of several advantages the CTC has over its competition that permits these relatively high producer prices in remote, rural areas with historically poor access to commercial markets:

- Emphasis on processed, packaged products that sustain higher market value
- Efficient depot system for collecting and bulking to lower transaction costs of moving commodities from producers to market
- COMACO’s emphasis on increasing production to scale up volume of goods to lower unit cost of transportation and handling while increasing net profit for CTC
- Increased loyalty of producers to sell to the CTC to benefit from increased prices.

Trading with the CTC through local depots requires farmers to be members of a registered producer group and compliant with their self-imposed by-laws and with CRB land use plans. Group by-laws require members to use conservation farming and composting for fertilizer as well as to abandon the use of wire snares. To reinforce this compliance, which is largely based on an honor-system, the CTC will use differential pricing of producer goods in 2005 to reward producer groups when verified 100%
compliance with the CTC rules for abeyance to approved land use practices. For example, groups with verified compliance will be able to sell their rice for K1000, whereas groups not fully compliant will receive a price of K950.

As COMACO products become more accepted and appreciated by the buying consumer in Zambia, COMACO will have a better basis of using this pricing leverage to influence land use practices and conservation results. Such results provide significant improvements to household incomes and help reinforce public acceptance for the need to conserve their natural resources.

1.5 COMACO impact on wildlife

This section reviews indicators WCS used to assess trends in illegal use of wildlife and trends in wildlife production as a basis for evaluating the possible impact COMACO interventions have had on wildlife conservation in Luangwa Valley and surrounding areas. The results show an extremely strong link between improved food security levels and access to better markets, as developed under the COMACO model, with improved wildlife conservation results. These results also provide an important comparative approach to conservation that may offer Zambia a more publicly accepted way to manage its natural resources without relying solely on expensive tactics of law enforcement.

1.5.1 Reduction of threats to wildlife.

The COMACO approach used farmer inputs and assistance with improved farming skills as a basis for farmers to reciprocate their cooperation by surrendering snares or illegal firearms. This reciprocation was a key basis for removal of snares and illegal firearms, recognized as major threats to wildlife production.

a) Voluntary surrendering of snares and illegal firearms

<table>
<thead>
<tr>
<th>Snares and illegal firearms surrendered by producer group members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>2001-2</td>
</tr>
<tr>
<td>2002-3</td>
</tr>
<tr>
<td>2003-4</td>
</tr>
<tr>
<td>Totals:</td>
</tr>
</tbody>
</table>

b) Indices on use of snares. These data assessed trends in snaring to determine whether snares removed by COMACO were being replaced. Indices consistently showed no evidence of snare replacement.

- Percentage households who witnessed neighbors bartering game meat for food (sample size = 252), an average annual reduction of 40%.
c) Wildlife scout assessment of snaring trends for past 3 years. Only scouts resident in the area for five or more years were interviewed:

<table>
<thead>
<tr>
<th>Total camps surveyed</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total scouts interviewed</td>
<td>35</td>
</tr>
<tr>
<td>% replied snaring had declined</td>
<td>80%</td>
</tr>
<tr>
<td>% replied snaring had increased</td>
<td>20%</td>
</tr>
<tr>
<td>% replied no change in snaring</td>
<td>0%</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Year</th>
<th>Chikwa</th>
<th>Chanjuzi</th>
<th>Chifunda</th>
<th>Mwanya</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>15%</td>
<td>50%</td>
<td>17%</td>
<td>62%</td>
</tr>
<tr>
<td>2003</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>30%</td>
</tr>
</tbody>
</table>

e) Survey of 445 randomly selected farmers participating in the food-for-better-farming programme on past and current use of snares.

<table>
<thead>
<tr>
<th>Year</th>
<th>% farmers admitting use of snares</th>
<th>number times snares used per year</th>
<th>number snares set when snaring</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>57%</td>
<td>4.7</td>
<td>6.1</td>
</tr>
<tr>
<td>2003</td>
<td>7%</td>
<td>2.4</td>
<td>4.8</td>
</tr>
</tbody>
</table>

f) Snare encounter rate per wildlife scout patrol in Chifunda GMA (Core Project Area) showed a 700% reduction in finding snares on patrol.

![Graph showing a 700% reduction in finding snares on patrol.]

1.5.2 Wildlife production.

While the above data suggests that COMACO has significantly reduced two major factors contributing to human-caused mortality of wildlife, they do not answer the
important question, ‘Has COMACO through its reduction of snares and illegal firearms contributed to increased wildlife production?’ Three separate sets of data presented below strongly suggest a significant increase in wildlife production has occurred during the period the COMACO approach was implemented.

a) Indices based on safari hunting results: hunting results and hunting effort.

Available data existed for three out of five safari hunting areas in the “core area” to assess hunting success and hunting effort as indicators of wildlife production. A positive slope for success is indicative of increased production of trophy animals while a negative slope for hunting effort suggests the same result. Lion and buffalo were chosen for this analysis because of lion’s sensitivity to snaring and poachers’ preference to buffalo. As shown in the figure below, data confirmed patterns of increased production for each of the three areas.

b) Animal sighting trends for scout patrols in Chifunda area

Scouts who patrolled for 7 to 10 days and recorded the occurrence and numbers of selected species while on patrol collected these data. These data, summarized below, show an increase in production for 5 out of 6 species monitored by wildlife scouts in the area. Since safari clients generally harvest only the oldest males in the population for their trophy
and relatively few of the species used in this comparison, particularly eland, roan and hartebeest, the increase in sightings of these species provides added relevance to the impact of snare removal by COMACO has had on wildlife production. Waterbuck was the only species showing a decline for reasons not clear from this study.

c) Aerial wildlife census surveys

Aerial wildlife census surveys were flown in 1999, 2002 and 2004 over 7 sampling blocks, covering approximately 4500 km2 of the project area along fixed transects at a sampling intensity of 19%. Species counted for assessing wildlife production were elephant, buffalo, kudu, zebra, eland, wildebeest, waterbuck, puku, hartebeest and roan. Survey results (Table 5 and Figures 6 and 7) showed an overall trend of population increase for 9 of the 10 species. Kudu, puku, elephant, zebra and buffalo had a more widespread increase across the project area with significant increases for 4
to 5 of the 7 sampling blocks sampled. Population increases in roan, hartebeest and eland were least representative of the area surveyed. The frequency of population increase for each sampling block, as measured for each species by a greater than a 20% increase in population estimate from 1999 to 2004, outnumbered population decline by a factor of 1.55. For species considered most abundant in 1999 and least sensitive to sampling area, occurrences of population increases outnumbered population decreases by a factor of 3 to 1.

Table 5. Statistics of aerial survey census

<table>
<thead>
<tr>
<th></th>
<th>Buffalo</th>
<th>Wildebeest</th>
<th>Elephant</th>
<th>Puku</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>SE</td>
<td>Total</td>
<td>SE</td>
</tr>
<tr>
<td>1999</td>
<td>4042</td>
<td>468.4</td>
<td>1820</td>
<td>173.0</td>
</tr>
<tr>
<td>2002</td>
<td>3719</td>
<td>380.9</td>
<td>847</td>
<td>69.6</td>
</tr>
<tr>
<td>2004</td>
<td>15104</td>
<td>1258.6</td>
<td>1596</td>
<td>101.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Waterbuck</th>
<th>Zebra</th>
<th>Eland</th>
<th>Hartebeest</th>
<th>Roan</th>
<th>Kudu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>SE</td>
<td>Total</td>
<td>SE</td>
<td>Total</td>
<td>SE</td>
</tr>
<tr>
<td>1999</td>
<td>40</td>
<td>13.3</td>
<td>400</td>
<td>26.6</td>
<td>89</td>
<td>10.6</td>
</tr>
<tr>
<td>2002</td>
<td>147</td>
<td>9.1</td>
<td>559</td>
<td>44.1</td>
<td>77</td>
<td>5.6</td>
</tr>
<tr>
<td>2004</td>
<td>514</td>
<td>52.3</td>
<td>781</td>
<td>59.7</td>
<td>687</td>
<td>89.5</td>
</tr>
</tbody>
</table>

Figure 6.

Figure 7.
1.5.3 Cost-benefit relationships between agriculture and wildlife

COMACO has demonstrated the potential synergy between agriculture and wildlife when selected crops promote food security and high market value with low impact on wildlife and habitat, when market pricing rewards better conservation practices, and when revenue incentives exist to produce wildlife. The latter point is not a direct result of COMACO but is a result of existing wildlife policy the COMACO model is based. Under the Wildlife Act of 1998, GRZ established Community Resources Boards (CRBs) to co-manage wildlife resources in GMAs with ZAWA. In return, a portion of revenues earned from the legal use of wildlife and collected by ZAWA is remitted to rural communities through their respective CRBs.

A critical component of COMACO’s success is that these wildlife revenue benefits be fully supported and promoted by ZAWA. As farmer compliance to better land use practices result in verifiable increases in wildlife production, the level of incentives, such as the percentage revenue share returned to the community, should also increase. Justifications for an increase include the need to compensate for the potential costs of living with large, wild animals and to reward the community for their commitment to wildlife production by adopting better land use practices. COMACO’s impact on wildlife is now verifiable with a strong cause-and-effect relationship between COMACO’s interventions and household commitment to land use practices that lead to increased wildlife numbers. Following on this success, COMACO through the shareholders of the CTC has an important role of engagement with ZAWA to facilitate the potential synergies COMACO is helping to build between agriculture and wildlife. With such cooperation and support from ZAWA, there will be a much greater financial incentive to resist farming cotton or tobacco in favor of competitive commercial crops that reduce potential conflicts with wildlife.

1.6 COMACO impact on other resources

Continued development of the COMACO approach through improved producer prices and production technologies linked to the community land use plan has generated a number of important ways COMACO can have a positive conservation impact on other resources. Preliminary data suggest these impacts are becoming evident and will be quantifiable over the next couple years.

- **Reduction in bushfires through a lowered incidence of farmers burning their fields.** COMACO requires farmers to adopt conservation farming in order to access markets that the trading centre offers. Rather than burning fields, conservation farming allows crop residues to breakdown naturally into the soil, and thereby enriching the soils. Fires used to burn crops often spread into the surrounding bush and can do extensive damage to trees and wildlife habitat. In 2004, for example, 73% of the CTC-registered farmer producer groups randomly sampled did not burn their crop residues in compliance to conservation farming guidelines. Though a baseline percentage is lacking, anecdotal evidence such this percentage of households who did not burn is a significant increase in bushfire prevention.

- **Increased production of fish resources.** Increased price for poultry and improved production methods may reduce pressure on fish populations in Luangwa Valley, especially with the compliance of land use regulations to use legal size fishing nets.

- **Improved forest watershed management.** COMACO will offer bonus market prices for selected crops, such as rice and groundnuts, when producer groups attain specific targets designed to increase forest conservation. For example, a farmer group that has 10 bee hives practicing good apiary management will have access to an extra K100-200/kg for groundnuts or rice produced. Good apiary management
ensures protection against forest fires and encourages tree planting of species good for honey production.

- **Improved soil conservation and forest conservation.** COMACO’s introduction of soybeans and the increased producer price for rice has given farmers an alternative to cotton farming, which reduces a farmer’s time to grow a food crop and increases the rate of tree loss. Fields supporting cotton generally exhaust their soils in 3 to 4 years and a farmer is forced to clear more land, whereas soybeans offer competitive prices to cotton and help enrich the soil to sustain long-term crop rotation with a food crop on the same farm plot. Having a successful food crop helps to ensure food security and a reduced threat to wildlife.

1.7 Lessons learned: COMACO’s strengths and weaknesses

1.7.1 Lessons-learned

1.7.1.1 Community and District-level relationships

- **Listen to farmers at their level of needs and aspirations.** To really understand the problems of food security, its causes and its relationship to conservation, WCS had to work at a household level and listen carefully to what farmers said and felt. This was one of the most valuable lessons that has given WCS a solid foundation for developing the COMACO model.

- **Work closely with Community Resources Boards.** These are local leaders, together with local Chiefs, who have considerable skills and respect within their community and can greatly facilitate public understanding and support for COMACO initiatives. Because CRBs derive their income from wildlife through revenue shares with ZAWA, it makes practical sense for CRBs to have an ownership share in the CTC and to help lead COMACO as a basis for increasing wildlife production and wildlife revenues for their areas. An important staff member WCS created to ensure COMACO remains fully engaged with these Board leaders is the CRB Liaison Officer. Also important in the Community Coordinator, who coordinate community trainers and training activities for producer groups.

- **Maintain a year-round presence with participating communities.** WCS has made it possible for CTC staff to maintain regular contact with participating communities throughout the year. This has built increased household confidence in the skills recommended for their use when staff periodically visited to assess progress and offer encouragement. It has expanded staff contact with producer groups by creating new positions of extension support among community members: Community Coordinators, Assistant Community Coordinators, Senior Community Trainers, and Community Trainers.

- **Build a strong local partnership with District-level Authorities.** WCS has found a strong ally by working closely with District Council authorities. By sharing information and ideas and engaging their participation where appropriate, WCS and CTC staff have become welcomed advisers to the Council, allowing the results of COMACO to become better understood and supported in the District. This has also facilitated increased cooperation through use of equipment, sharing of technical staff and gaining better insight into the history of issues and problems in the District.

- **Storage sheds are an important symbol for highlighting food security and the COMACO objectives in the community.** A relatively small investment in making a community depot attractive and visually interesting with posters, wall murals, etc. increases public interest in visiting and talking to staff and trainers about the program. Such interest can translate into more producer groups and increased use of the depot as a training center.
• Rural communities need a reliable, sustainable support service for promoting food security beyond the lifetime of WFP/WCS direct support. Unlike previous Gov’t support models that have generally failed to provide consistent services to local farmers, the trading center model working in partnership with local Government institutions, as is the case in Lundazi, could overcome this problem.

• HF radio communication greatly facilitates CTC and community partnership in overcoming poverty and food security problems. Regular radio contact facilitates the transfer of information and planning on a regular basis that encourages community leaders and members to solve their problems through legal markets and alternative livelihoods skills. The CTC develops regular “radio” programs over the HF radio communication system it invested in to bring large numbers of people together to discuss problems and share ideas on how to solve these problems. This has proven an excellent tool for team building and finding adaptive solutions over a large land area.

1.7.1.2 CTC business management

• Do not underestimate the bad roads and high costs associated with transport on these roads. Had WCS not invested in 4x4 trucks, it is likely the entire programme would have failed. Even with these trucks, transport is a real challenge to keep overheads low. To minimize costs, WCS recruited its own mechanics and established a CTC workshop.

• Do not underestimate the importance of staff training. Many of the skills related to accounting, business planning, and marketing are technical and complex. Staff need literacy in various software applications and need also training in how to organize and present information. This has been one of the biggest challenges of the COMACO to help develop a fully Zambian-based capacity to manage and run the CTC.

• Begin the marketing season with enough cash to sustain enough buying for the CTC to begin generating cash from sales. The CTC will incur a high cost at the beginning of the market season before sales help move the account into a net profit. Having enough cash on hand is critical.

• CTC’s success requires loyal patronage among producer groups to trade with CTC. Key factors to achieve this loyalty include producer prices above any competition, commitment to provide inputs at fair prices or favorable barter exchange rates. The CTC provides inputs to producer groups according to expressed needs of group members. This reduces the need for households to travel to town or risk exploitation by unscrupulous traders.

• CTC commitment to public service by developing depots, assisting with skills and inputs, and raising producer prices have enabled farmers to gain confidence to sell their good to the CTC on credit. This has been a major source of help to the CTC when liquidity problems would have otherwise prevented the CTC from collecting farm products for markets.

• Do not limit CTC products. Farm yields are variable and fixed costs to sustain the CTC require multiple sources of revenues.

• Diversify CTC products to natural resource products so the link between farm-based income and natural resource-based income is more evident among the shareholders. This helps to create improved synergy between agriculture and non-farm resources like wildlife and forest products.

• CTC business cycle needs well-developed logistics planning to prepare for the marketing season. It is crucial, for example, for CTC to have scheduled management targets for the marketing season, such as full servicing and maintenance of trucks, procurements of 50kg grain bags, purchasing of labeled packages, and repair of scales.
• Eliminate middle-men buyers and focus on high-volume, high-end retail markets. The CTC has achieved increased profitability by packaging and labeling its own products and moving these products to high-end markets in Lusaka. This requires, however, facilities for storage and transport for distribution and sales.

• Establish an effective way of monitoring producer group compliance to their own by-laws as criteria for future eligibility to loans or credits for future enterprise development by registered producer groups. CTC is developing a database on potential credit worthiness by having a database for each producer group and their respective compliance to conditions provided during the course of their participation in the COMACO programme.

1.7.1.3 Livelihood development and reduction of HIV infection

• For farm-based, subsistence communities, food security is a pre-requisite for achieving improved household income. With food security, a household can plan additional sources of income and be able to commit time and energy to learn new skills. Finding food to buy or using commodities to exchange for food, such as game meat, is time-consuming and constrains one’s level of commit to develop new livelihood skills.

• When supporting a household with free maize as means to leverage his or her time to learn new farming skills, conditions to receive maize must be enforced so that other households willing to comply are brought onto the program. It is important not to create the impression that COMACO is a program giving out free food. It is equally important to quickly develop example farmers who have emerged quickly as food secure families and give confidence to other farmers that they can do the same.

• Use bartering as a means to allow producer groups to receive inputs to develop their income-earning livelihood skills. COMACO typically uses chickens as a way for producer groups to negotiate for inputs with the CTC, which is able to recover its cost from the sale of chickens. As the CTC becomes better able to provide inputs on a larger scale, such transactions will be possible by giving credit to farmer groups through their sale of rice, groundnuts or soybeans.

• The role of Community Coordinators, Depot Managers and Community Trainers with close involvement of community leaders (CRB leaders) is critical for maintaining active producer groups. Where COMACO has had weak Community Coordinators to maintain regular contact between trainers and producer groups, problems of groups disbanding and losing interest in their skills has been a problem.

• Livelihood skills are best taught in situ to lower training costs and to allow group members to support one another in learning and practicing skills. Community trainers should be well educated to learn skills from more specialized trainers to help transfer their skills and knowledge to group leaders. Regular visit to confirm other groups members are learning skills in an important of the follow-up.

• Producer prices are an important determinant of acceptance and use of newly introduced livelihood skills. This point is especially important for recognizing the value of the CTC in driving improved livelihood skills and alternatives to illegal uses of resources, such as wildlife poaching.

• Making cash or barter payments and providing key farmer inputs at the producer depots reduce the need for household heads to travel to town to cash a cheque or obtain needed inputs. This reduces the level of risks households may have in contracting HIV when they travel to town. Farmers, for example, who grow cotton are paid with cheques and travel to town to cash them. There they have considerable sums of money and are far from home. As is often the case, much of this money is often used for beer drinking and prostitution and HIV is thus transmitted back to the villages. COMACO is able to reduce this risk by keeping
family members together and reducing the need for household heads to be away from home for long periods.

1.7.1.4 Start-up requirements for establishing a Conservation Farmer Wildlife Producer Trading Centre

In order for COMACO to be appreciated and understood in the District, WCS felt it was important the location be where people would frequently pass and perhaps visit to learn more about the program. In Lundazi, COMACO acquired an old building in the middle of town owned by the District Council. It required major renovations but it also proved to be an ideal location for COMACO to launch the program in the District. The building also had sufficient floor space and rooms to allow the program to grow and expand its various activities without incurring excessive infrastructure costs.

As the volume of trade grew over the first three years, COMACO soon learned that sufficient storage space should be located nearby the processing equipment for producing finished products. This allows farm inputs to be stored and moved easily to the processing plant, and outputs, once packaged, can then be moved easily to their respective storage area until shipped out. This has been a major problem for the CTC in 2004 because such storage facilities are lacking. Efforts are underway now, however, to build a structure to fill these requirements.

WCS received considerable pressure from members of the public to hire locally. In most cases this was done to build strong public relations in Lundazi and to demonstrate COMACO’s commitment to improving employments for local residents. Such a commitment has also made it easier for the District Council to support COMACO’s mission and vision in the District.

Because the COMACO mission is to create a self-financing solution to rural development and conservation, it is crucial to recruit people who are highly intelligent and motivated but at salaries sufficiently low to allow upward salary scales as the CTC demonstrates profitability. WCS has gone to great pains to demonstrate that COMACO is not another donor project but instead in a “business” enterprise receiving investment from donor support. As a business enterprise, its success is based on leadership and teamwork that lead to cost-saving decisions to market goods at a net profit for the company’s shareholders. This requires capable people willing to work at pay scales within the limits that the company can afford to pay. To achieve this level of willingness, WCS has helped forge a strong cadre of dedicated and motivated staff willing to commit time and energy to its success. This approach is beginning to pay off. CTC’s staff have remained committed and hard-working and largely self-driven.

When establishing a trading centre there are a number of other points to consider:

- A three-phase electrical supply to operate most food processing machines
- A reliable water supply to maintain toilets and to water surrounding landscape improvement
- Sufficient office space to give privacy to data management staff, accounting staff, extension staff, and administrative and marketing staff.
- A reception area to welcome visitors and display information about the program to facilitate public awareness about COMACO.

To invest in starting up a trading center and basing this investment on a three-year financing plan to develop a significant degree of self-financing by the end of this period, the following table provides a basis for planning certain costs. The actual period a CTC will likely require
to become self-financing as a business enterprise while achieving the objectives of COMACO is 3 to 5 years. The figures presented below (Table 6) assumes the worst case where existing structures for depots are not available and major repairs are needed for the trading centre. One assumption not reflected is the support from World Food Program or Program for Malnutrition directed at targeted households as basis for using their inputs to introduce and train better farming practices, form farmer groups and introduce the concept of conservation compliance. Such support was a major source of assistance in launching the COMACO program in Lundazi/Chama Districts.
<table>
<thead>
<tr>
<th>Items</th>
<th>Purpose</th>
<th>Quantity</th>
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<th>Total Cost</th>
<th>Comments</th>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Producer depot structures</td>
<td>bulking, transactions, etc.</td>
<td>10</td>
<td>$3,500</td>
<td>$35,000</td>
<td>May be available, often are</td>
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<td>HF radio sets per depot and CTC</td>
<td>Communicating market information, dispatch schedules, etc.</td>
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<td>$1,400</td>
<td>$15,400</td>
<td>Includes solar panels, batteries, etc.</td>
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<tr>
<td>Scales</td>
<td>weighing produce</td>
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<td>$500</td>
<td>$5,000</td>
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<td>Platform scales</td>
<td>weighing at the CTC</td>
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<td>$1,200</td>
<td>$1,200</td>
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<td>Depot manager office supplies</td>
<td>office administration</td>
<td>10</td>
<td>$50</td>
<td>$500</td>
<td>Box files, calculator, etc.</td>
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<td>renovations and 3-yr rent of trading centre</td>
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<td>1</td>
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<td>office equipment for CTC</td>
<td>chairs, desks, shelves, etc</td>
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<tr>
<td>computers (4), printers, photocopier (1), fax, phone, email installation, etc</td>
<td></td>
<td>1</td>
<td>$15,000</td>
<td>$15,000</td>
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<tr>
<td>labeling and packaging</td>
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<td>$4,500</td>
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<td>Processing equipment</td>
<td>grain processing equipment</td>
<td>3</td>
<td>$4,000</td>
<td>$12,000</td>
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<td><strong>Cash requirements:</strong></td>
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</tr>
<tr>
<td>Staff salaries (3 years)</td>
<td>CTC manager, deputy manager, drivers (4), Extension manager, extension assistants (3), depot manager 10, community coordinator 10, per diem for trainers, etc</td>
<td>3</td>
<td>$45,000</td>
<td>$135,000</td>
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<tr>
<td>Producer inputs</td>
<td>Group inputs to encourage adoption of alternative livelihood skills, e.g. carpentry, bee-keeping, etc</td>
<td>400</td>
<td>$120</td>
<td>$48,000</td>
<td>Inputs repaid by barter with locally produced goods but at much subsidized price to promote use of inputs</td>
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<tr>
<td>Revolving fund</td>
<td>Initial capital to support farm product purchases and transport, marketing costs, office running costs</td>
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<td>$50,000</td>
<td>$50,000</td>
<td></td>
</tr>
<tr>
<td><strong>Transport requirements:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Motorbikes for CTC extension staff</td>
<td>Monitor trainers, supervise training, assess crop success, etc</td>
<td>4</td>
<td>$5,000</td>
<td>$20,000</td>
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<tr>
<td>Bicycles for trainers</td>
<td>Maintain regular contact with producer groups, etc</td>
<td>40</td>
<td>$80</td>
<td>$3,200</td>
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<td>Trucks</td>
<td>Collecting farm outputs, delivering farm inputs</td>
<td>3</td>
<td>$14,000</td>
<td>$42,000</td>
<td>Good used trucks, one should be 4-wheeled</td>
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### Pick-up
- **Community visits and general use by CTC**
  
<p>| | | |</p>
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<tr>
<td>2</td>
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### Set of tools for vehicle repairs
- **CTC workshop**
  
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<tbody>
<tr>
<td>1</td>
<td>$1,000</td>
<td>$1,000</td>
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### Extension work:

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<th>Activity</th>
<th>Quantity</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
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<tr>
<td>Community orientation</td>
<td>10</td>
<td>$500</td>
<td>$5,000</td>
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<tr>
<td>Household livelihood survey</td>
<td>10</td>
<td>$700</td>
<td>$7,000</td>
</tr>
<tr>
<td>Farmer group formation</td>
<td>10</td>
<td>$700</td>
<td>$7,000</td>
</tr>
<tr>
<td>Farmer training</td>
<td>20</td>
<td>$300</td>
<td>$6,000</td>
</tr>
<tr>
<td>Land use planning</td>
<td>10</td>
<td>$800</td>
<td>$8,000</td>
</tr>
<tr>
<td>Crop assessments</td>
<td>10</td>
<td>$700</td>
<td>$7,000</td>
</tr>
<tr>
<td>Shareholder meetings</td>
<td>8</td>
<td>$500</td>
<td>$4,000</td>
</tr>
<tr>
<td>Alternative livelihood skills training</td>
<td>20</td>
<td>$1,000</td>
<td>$20,000</td>
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</table>

**Sub-total:** $508,800

### NGO support costs:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
<th>Staff reviews, staff selection, annual audits, workplans, business plans, computer applications, management systems</th>
<th>Quantity</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin and technical support (3 years)</td>
<td>3</td>
<td></td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
<th>Database set up, results analysis, technical reviews</th>
<th>Quantity</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
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<td>Monitoring and evaluation (3 years)</td>
<td>3</td>
<td></td>
<td>3</td>
<td>$15,000</td>
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**Sub-total:** $105,000

**Total:** $613,800

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### 1.7.2 Strengths and weaknesses of the COMACO approach

COMACO, as a model for rural development and conservation in areas outside protected areas, is still early in its inception and implementation. With three years of sustained support by WCS as a pilot program to learn how to improve its results. This section analyses the program’s strengths and weaknesses, and in particular, it highlights specific problems encountered during its pilot phase to suggest improved methods or procedures for reducing such problems.

#### 1.7.2.1 Strengths

- Creates synergy between markets and agriculture with a clear linkage to reducing environmental threats in an area
- Significantly lowers the cost of conservation
- Provides a self-financing institution in the region to promote rural livelihoods and improved conservation of natural resources
- Recognizes local authorities and their indigenous knowledge of their area for ways to improve land use practices
- Reduces the dependence on donor support
- A relatively low-cost approach to achieving and sustaining food security and increased household incomes that targets the most food impoverished and households with lowest incomes
- Has the capacity to improve household livelihoods for 1000’s of households across ecosystem-level landscapes.
• COMACO lessons, management systems, database designs and monitoring tools are well developed to help facilitate the establishment and successful operations of new CTCs.

1.7.2.2 Weaknesses

• Relies on relatively inexperienced staff during the early phase of COMACO as staff acquire training and experience on the job. This is the basis for keeping staff salary cost low but assumes close supervision and mentoring by more qualified NGO external staff during initial development phase of CTC.
• Relies on its own transport to support trading activities and this can inflate costs if vehicle maintenance and driving competency is not taken seriously. The alternative is to rely on private sector truck hire or increased dependence on middle-men traders, which has proven incompatible with the goals and objectives of COMACO.
• Production of commodities is initially limited to selected households who are the greatest threat to their natural resources. This is a conditionality of the model but slows the process of building sufficient volume of commodities to actively trade on the market.
• The market place is already saturated with middle-men traders who will resist efforts by COMACO to cut them out of the market.
• Developing high-end, high valued products requires extensive quality control to gain favor with the consumer.
• COMACO assumes the presence of CRBs and qualified local leaders to assist with community mobilization and supervision of COMACO activities at the community level. Where such community leadership and organization are lacking, COMACO will have much greater difficulty in building community-wide support for its approach.
• COMACO also assumes the presence of relatively strong urban-based markets in the region to help promote the CTC’s growth and eventual expansion to larger urban-based markets.

1.7.2.3 Specific problems encountered by the COMACO pilot scheme and actions taken by CTC management staff

• CTC management found it difficult to take disciplinary action against staff who failed to perform and in such cases tolerated low performance by staff who should have been warned and eventually removed from the staff. COMACO instituted tiered supervisors and mid-year staff evaluations with salary adjustments made at the end of the year in response to qualities that promoted team-building, innovativeness, hard-work and self-discipline.
• Local leaders initially expected the CTC to provide transport for them as representatives of the community shareholdings and this conflict resulted in poor public relations. Having board meetings to review costs and the reality of running the CTC as a business has solved this problem.
• CTC did not have a well-developed business plan when investing and developing farmer output targets and as a result, it grossly underestimated the needed financing to sustain commodity purchases. It also underestimate the buying strength of the market, made worse by a large influx of imported rice. COMACO is addressing these problems by developing a business plan for the CTC and is targeting 2005 with a better prepared plan for financing CTC operations. COMACO is also leveraging support through the District Council to appeal to the Ministry of Agriculture to limit quantities of cheap rice the country imports.
• COMACO did not diversify its revenue sources as early as it should have. This was largely a result of lack of financing and lack of experience in the various products the CTC might have developed earlier.

• Lack of experience by CTC staff have allowed the CTC to be disappointed by various trading partners who misled the CTC with pricing and transport arrangements. This has created valuable experience on how to negotiate terms of business with potential buyers and trading partners.
Annex 1. COMACO Food Security Program Implementation Manual

This document provides a comprehensive description on how COMACO organizes households that are unable to produce enough food to meet their family needs into farmer producer groups as a first step in their registered membership with the CTC for future trading benefits. This section is included in this report because it is an key foundation for building a successful CTC and achieving objectives of the COMACO program.

WFP maize food distribution.

A. Program overview.

The food security implementation manual outlines the program components and gives a general overview of the food security program in regard to maize distribution. Maize distribution under the food security program is divided into three categories:

1. Food for conservation farming (Food for food security)
2. Food for work
3. Food for wildlife/nature conservation commitment.

This is maize food distributed to recipients in exchange for skills training in food production for increased household food security. In this category of maize distribution, selected food insecure households from targeted communities receive maize after complying with certain conditions and are mobilized into farmer groups where they are trained in conservation farming (CF), compost making and/or other food security livelihood skills.

- Mobilization of community recipients for maize distribution

In the 2003/2004 season, the process of mobilizing the community for maize distribution under the food security program started by the selection of food insecure households from target communities where the program was implemented. This started after confirmation of the numbers of recipients required for assistance from each of the operational areas. The selection of households was done by the local leaders (Ndunas and village headmen) through the community resource boards (CRBs) in game management areas (GMAs) or satellite committees in areas without CRBs. The CRB in each target GMA forms a Food Distribution Committee which oversees the whole maize distribution exercise, from the selection of households, compliance to conditions in maize distribution, food distribution monitoring until the close of the season. The food insecure households lists compiled by the local leaders was handed over to WCS extension officers, who, together with the CRB food distribution committee, depot managers and trainers, did a food security assessment for all selected households to prioritize and streamline the recipients to only the required number. The depot manager and his trainers then compiled a final list of recipients with assistance from WCS extension staff. The compiled list was then given to the local leaders for approval (indunas and chief). The approved list of recipients, considered as final recipients list was submitted to the WCS extension officer who verified it and a copy was submitted to the data analyst for entry into the database, while a copy was given back to the depot manager to be used for formation of farmer groups and training.

Guidelines for selecting maize recipients:
Because household selection for receiving maize is done by local leaders, guidelines should be used to ensure fairness in the selection of these households. The following are the guidelines:

1. In selecting households, the headman should consult with senior members of his village as to who in his village requires food assistance. This is to ensure transparency in the selection and avoid certain quarters of people complaining that the selection process was biased.

2. During selection, priority should be given to households who have never received maize assistance before. This will give chance to many households to join in the food security program, learn new farming skills and also increase number of households participating in the CTC as farmer groups. Only households who suffered a disaster in the last season (food insecurity as a result of extensive animal crop damage, floods and/or severe drought) and were previous recipients and have shown commitment to the food security program in past seasons can be assisted with maize food.

3. Only able-bodied household representatives should be considered in this category of maize distribution because they will be expected to do some work in exchange for the food. This includes any household representative who is able to perform food security tasks such as compost making, conservation farming etc. This is not intended to discriminate any persons but since this involve physical work, it is necessary to consider whether the selected household representative is capable of complying with the conditions in the program. Other members of the community who are not able to comply with the food for conservation farming category (such as the sick, the aged and children) may receive maize from other categories.

4. Households who have received maize in the past but have left their farmer groups and abandoned the food security program, though food insecure cannot be selected for maize recipients.

5. No person in formal employments, e.g. scouts, teachers, depot managers, trainers etc. may be selected as a maize recipient for this category of maize distribution.

6. Households who concentrates on growing none food crops such as cotton, tobacco etc at the expense of producing food for food security, though food insecure, may only be selected as recipients upon an agreement that they concentrate of producing food in accordance with the food security program and abide by the by-laws of the farmer groups which promotes growing of food and cash crops that are environmentally friendly. In some areas however, cotton and tobacco growers may not be considered for selection depending on the area’s situation on cotton and tobacco growing. It must be noted that the reason for this condition is that cotton and tobacco growing have two negative impact on food security:

   a) They take away farmers’ time to produce food as they demand more time for attending to them.

   b) The have negative impacts on the environment related to WCS’s conservation program, e.g. tree cutting, which leads to deforestation, cotton chemicals are used for fish poisoning and when sprayed, a lot of bees dies, which affects honey production and both crops affect soils over time.

These guidelines will help set standard procedures in considering maize recipients for the food for conservation farming. The extension officers should ensure that depot managers, community coordinators, trainers and community leaders understand the
guidelines. The guidelines should be published months before the households’ selections starts and sent to all target communities.

**Formation of farmer groups:**

To effectively train and monitor participating households in the food security program, the households are mobilized into **farmer groups**. A farmer group is a group of people who come together for the purpose of learning improved farming and livelihood skills to enhance their food security and income generation through increased food production. A farmer group comprises of not more than twenty (20) members for effective group management.

**Group Membership**

Any person, from the community where farmer groups have been formed, is free to join a farmer group formed by maize receiving household even though he/she is not a selected maize recipient and will undergo the same training and monitoring of compliance as the maize receiving farmer group members. Also, any group of farmers may agree to form a farmer group under the food security program as long as they agree to abide by the regulations governing the food security program farmer groups. Those who join farmer groups must be aware that there are individual commitments to being a group member.

**Farmer group structure:**

Each farmer group has the following structure:

- Chairperson
- Secretary
- Treasure
- Members

Farmer groups hold elections, shortly after formation, to elect their leaders. The CRB, Trainers and Depot Managers, to ensure transparency during election, monitor these elections. Once the group leadership is in place, the groups develop by-laws.

**Group by-laws:**

The most important commitment a group must show to comply with conditions in the food security program is to develop by-laws. By-laws helps regulate how groups operator and how members should behave. There are two primary reasons why producers groups are formed in the food security program:

1. To improve their food security and income levels and
2. To transform the households involved in this program into wildlife producers by participating actively in wildlife and nature conservation. This means that households in farmer groups stop relying of illegal wildlife and natural resources exploitation to meet their food and income shortfall, but instead, improve food security through utilizing new farming skills that are in line with good land use practices aimed and increasing food production and earn income through legal markets through the CTC.

In order for group members to meet these commitments, both as individual members and as a group, the by-laws they form should meet the following minimum requirements such as:
1. Each member of the farmer group will put into practice the newly acquired farming skills in totality and attend any further training required for food production.

2. No farmer group member should be found to:
   a) Practice snaring,
   b) Poaching of any kind (using guns, spears etc.),
   c) Light late bush fires,
   d) Encroach in any area that the CRB/Community land use plan has zones for other uses (by settling or cultivating in such an area, e.g. near or in a national park, near a tourism facility, safari hunting areas etc.),
   e) Cut down trees indiscriminately (for firewood or honey gathering),
   f) Use illegal fish net sizes for fishing,

3. The groups members shall continue to surrender all tools (snares and guns) used in illegal wildlife harvesting, through their leaders, to WCS (either those in their possession or those found in the wild), and encourage others, even those who do not belong to farmer groups, to surrender such items.

4. Group members shall participate in CTC and COMACO programs and contribute by maximizing use of the CTC (that is to say, members should agree to sell their products to the CTC in order that the CTC, which is a community company, may grow into a self sustaining entity).

5. Group members shall only grow cash crops that contribute positively to the environment and nature conservation. Crops like cotton and tobacco should be discouraged among group members.

Though group by-laws may vary from group to group, these mentioned above should be considered as the minimum conservation requirements for groups in the food security program. It should be noted, by all involved in the food security program, that as WCS, the primary goal for this program is to conserve and increase wildlife and natural resources through community participation. Therefore, the most important commitment those involve in this program should show is to abide by the by-laws aimed at achieving the goals.

Maize recipients wait-listing

This is a concept where food insecure farmers in farmer groups, those who are not on the original recipients' list but willingly joined farmer groups, are put on standby to replace recipients who fail to comply with conditions for receiving maize. The listed farmers should however meet the following conditions:

1. They must be food insecure. An assessment of these farmers in food security should be done prior to listing them to determine whether they really are food insecure and requires food assistance. Beneficiaries’ data should also be collected during this assessment.

2. They must be first time recipients. This means that they should not have received maize in the past from the food security program.

3. They must be farmer group members who have complied with every other condition required for that phase distribution. Therefore, every phase will have a wait list of farmers who have complied with the distribution conditions.

- Conditions for receiving maize for selected recipients

Since the maize distributed to recipients in this category is food for conservation farming, recipients are required to meet certain conservation farming conditions before receiving maize. Since conservation conditions are spread over the farming season, the maize distribution for food for conservation farming is divided into phases with different
compliance conditions, which are verified by the trainers before a recipient receives maize.

Phase I:

1. Recipient must **form farmer groups** and each recipient must **belong to a registered conservation-farming group** and must have **attended training in conservation farming and compost making**. Further, the recipient should have **made a compost heap**. The deadline for verification of this compliance is by the 2nd week of August. Each trainer is expected to visit each recipient and check for compliance. The trainer uses a data form for maize distribution phase I to sign for the compliance for all recipients who comply. The community coordinator and the depot manager must confirm that each trainer has actually visited farmers and checked compliance by randomly selecting a number of farmers for compliance verification and visit them to verify the compost. Also, the trainer fills in a **Farmer group’s membership data form**, which is submitted to the depot manager. The depot manager fills in two more copies and submits one to WCS extension officer and one to the community coordinator for record keeping. This helps verify that all recipients are farmer group members.

2. Farmer groups for maize recipients should **elect leaders** and **formulate by-laws** showing commitment to improved food security and wildlife/natural resource conservation. The by-laws should show group commitment to implementing community approved good land use practices according to the land use plan. Newly formed farmer groups should have elected leaders and set by-laws by the 1st week of September. The trainer should attend each of his farmer group meetings where election of leaders takes place and confirm compliance for each group. The trainer then fills in the group registration form, which shows the members’ positions. A copy of the by-laws formulated by each group is attached to this data form. The depot manager and community coordinator uses this data form and the by-laws copy to verify that group has complied with this condition.

3. Each recipients farmer group should show commitment to nature/wildlife conservation by agreeing to do one of the following:

   - Surrender 15 wire snares used in illegal wildlife killing or surrender, as a group, one fire arm (MLG, Rifle, Shortgun etc.) or
   - Build a water retention dam (may involve more than one group) or
   - Make three beehive (tradition bark or bar) or
   - Construct a fish pond
   - Or any other agreed upon commitment to COMACO conservation strategies.

Farmer groups should decide what condition they want to meet as a group and this condition should be met by the 1st week of October. Again, the trainers, who are the group supervisors, should verify compliance to this condition by all farmer groups.

4. The final and most important condition for individual recipients as farmer group members to comply is **land preparation**. Each recipient is expected to dig conservation basin holes in at least a one Lima plot and apply compost manure into the basin holes in the one Lima CF plot. Because this is a very critical condition, selected recipients who do not comply to this condition will be removed from the recipients’ list and replaced by none selected farmers who have complied to the condition. Trainers are required to ensure that each
A farmer has completed the minimum 1 lima required before qualifying a farmer to receive maize. If a farmer has done only part of a Lima by the verification date, they are encouraged to complete the 1 Lima before collecting the maize. A farmer who completely fails to show commitment to CF by complying with this condition should then be removed from the list. The deadline for verification of compliance to this condition is 30th October. However, because this is a very important activity in CF practice, trainers should use the whole month of October, from the beginning to the end, to ensure that they visit each farmer to check on compliance. The depot manager and the community coordinator should again randomly select recipients who have been confirmed as complied by trainers and visit the farmers to verify whether the trainers reported correctly. One other most important condition for this verification is the complying farmer’s field is not in a conflict area (thus, should be in a farming designated area according to the community land use plan). Only farmers who have complied with this important condition will be considered for receiving maize.

i. Prepare a CF field of minimum 1 lima by digging basin holes.
ii. Apply compost manure in the prepared plot in readiness for planting.
iii. The CF plot’s location should comply with the community land use plan.

Phase II

1. **Planting.** Each recipient is required to plant maize (or other prescribed crop seed for the area) in at least a 1 lima CF plot. Planting period may vary from area to area depending on weather conditions and trainers are required to teach the farmers exactly when they should plant for each crop variety. Verification should be done one week after the first date of planting for that area to give farmers enough time to complete the minimum 1 lima required for receiving maize. However, in general, farmers should have planted by the 2nd week of December. Trainers should do verification in the third week of December.

2. **First weeding.** First weeding should be done by the first week of January. Each farmer must weed a minimum 1 lima for them to qualify as maize recipients. Because it take about two weeks to weed a minimum 1 lima, all recipient farmers should ensure that they have completed weeding by the first week of January, unless of course weather conditions alter the period. Verification should be done in the first week of January by trainers, confirmed by the community coordinator.

   (for the valley area, it has been noted that 4 weeding are necessary during the season and that the first two weeding will take place by the end of December. Therefore, Phase II will have first and second weeding as conditions)

Maize distribution should take place within the first two weeks of January, by the 14th.

Phase III

**Last weeding.** This is the only compliance condition for farmer groups members to receive maize in the last phase. Last weeding takes place by the last week of February. This means that for our farmers, they should have completed the last
weeding by the last week of February and verification should take place in the first week of March. However, since this is the last weeding, trainers should note that each farmer must have been assessed for second weeding, which takes place about the 1st week of February. Therefore, each farmer must have:

1. **Completed 2nd (3rd for the valley) weeding by the 1st week of February.** Verification of compliance by the trainers should be done by the second week of February. Each farmer must have completed a minimum 1 lima of CF.
2. **Completed last weeding.** As above. Only farmers who did the second and last weeding properly on at least a 1 lima plot should be considered for maize distribution.

**Condition compliance verification.**

In order to ensure compliance by recipients to conditions in the phase distribution to farmer group members, the trainers will require visiting each farmer to confirm verification of a condition. For example:

1. Trainers should visit each recipient’s household to check on whether the household has made a compost heap and verify that the compost is being tended to properly.
2. Trainers should visit each household’s field and check whether the farmer has actually dug basin holes on a one lima plot.
3. Trainers should visit individual farmer’s fields during weeding to check that farmers have done weeding at the right time and in a proper manner. Trainers should emphasize to farmers that it is not only for the sake of receiving maize why they should perform the CF practices at the mentioned time but for the good yields and food security.

Therefore, trainers should continuously monitor the activities of their groups and emphasize to the farmers on knowing why they are involved in this program. Only recipients who comply with the set conditions for each phase should receive food.

**Consequences of failure of compliance by selected households**

Failure to comply with the food security program conditions by a targeted recipient will result in:

a) Person being removed from the recipient’s list and not receiving maize.

b) Person being deregistered from a farmer group and no further benefits from COMACO for such a person.

**Consequences of failure by trainers to monitor compliance:**

During the Lusaka planning meeting, it was noted that in some cases in the last season (2003/2004), trainers were not reporting truthfully according to the actual situation on the ground. It was agreed that in order to ensure that trainers and depot manager are serious with their work in monitoring farmer group’s activities, there should be consequences for failure to monitor and report truthfully and in time. These consequences includes:

a) If a trainer/depot manager is found to have lied in reporting (thus, giving false information/data), they shall be suspended pending investigations and their salary for that month shall be withheld (will not be paid). The regions coordinator and his extension staff, with the help of the community coordinator, shall carry out investigations and the trainer will be dismissed if investigations prove truth.
b) If a trainer/depot manager fails to meet deadlines in reporting, first time warning, second time and final warning with salary withheld for that month and finally dismissed

2. Food For Work (FFW)

Food for work is food distributed in exchange for work done. In our food security program, we use this food to pay recipients in exchange for work such as road repair, construction of depot/structure or/and any other community work on projects that WCS sees beneficial to the community. The conditions for receiving the maize food for work largely depends on the work itself, e.g., for road works, payments may be on hourly basis, while for construction of a depot, it maybe on number of bricks ferried to building site, amount of water ferried, extent of area cleared for depot construction etc. In food for work, the supervising officer is either the depot manager or a WCS extension officer, who verifies compliance to the condition applied by recipients. Food for work is a minor component of the food security program intended to improve structures that contributes to the food security program, such as roads for easy access to depots and depot structures to ensure security and safety of the commodities stored there. Food for work distribution may combine with any of the phase distribution or can be done separately but should be within the allowed period of distribution of the month, according to the distribution timetable.

3. Food for conservation.

Food for conservation is also a major component of our food security program. In this component, the food is distributed in exchange for conservation commitment shown by community members, such as surrendering of illegal firearms or wire snares. These conditions may vary from area to area depending on the primary threat to wildlife or nature conservation exhibited in an area. For example, if in an area it has been noted that snaring is a big problem, the number of snares required in exchange for food may rise in order to reduce the threat, whereas if it is noted that in an area, guns pose a greater threat, it may be required that more maize is set aside for collection of firearms and a larger quantity of food set in exchange for guns to encourage people to surrender firearms. Here are some standard rates used in exchange for conservation:

a) 10 used wire snares = 1x50 Kg bag of maize (20 unused snares). Used here refers to wires that are verified as having been removed from the bush where they were set. Participants in this component of the food security are encouraged to move about in the bush where they suspect snares are set, remove them and surrender them to the depot in exchange for food. There is no need for concern from participants of being arrested by law enforcing officers (ZAWA) since ZAWA wildlife police officers are informed about the snares surrendering exercise.

b) 1 functional Muzzle Loading Gun (MLG) = 1x 50 Kg bag of maize. The MGL should be functional with firing trigger. Old, used up and none functional guns will not be accepted for exchange with food.

c) 1 functional commercial Rifle or Shotgun = 3x 50 Kg bags of maize.

d) 1 functional locally made Rifle or Shotgun = 2x 50 Kg bags of maize.

In this category, maize distribution may be spread over the whole distribution period. There is no specific phase when this maize is to be distributed but can be distributed in every phase from the beginning of the program up to the end. Since recipients of this maize are those who bring items to surrender, for each month, distribution of this
maize should be between the 1\textsuperscript{st} and 14\textsuperscript{th} of the month, as is in the timetable, to enable timely reporting. In summaries, the data for this maize is reported monthly with other monthly maize distribution data. However, to enable people to bring items for surrendering in time for maize distribution, compliance to this condition will be from 20\textsuperscript{th} to 30\textsuperscript{th} of the previous month. During this time period, people with items to surrender, such as guns, wire snares etc, can bring them, have themselves registered for maize distribution and beneficiaries data for recipients’ families collected before the date of distribution.

The depot manager is the key person in the verification of conditions for this category of maize distribution and should ensure that conditions are complied to in full. Thus, the items surrendered should meet the above-mentioned standards, e.g., a MLG should be functional and wire snares should be proved to have been removed from the wild. The Community coordinator will work with the community coordinator to ensure transparency in the compliance of these conditions by recipients.

B. Monitoring and Evaluation (Data collection and reporting)

In order to ensure that the activities in the food distribution exercise and other extension activities are closely monitored, data collected and verified in time, the following structure, upon which improvements can be made, was suggested by the data manager as a working model for data flow in order to increase extension’s participation in data collection and monitoring:
Although this structure has been in existence with an exception of a few inclusions, such as community coordinators and a logistics officer, it was noted by the data manager that data collection and verification was poor in the last season due to lack of individual commitment and interest in the processes by some staff in this structure. For example, some extension officers did not even have the right data for the activities they were involved in in their areas. This led them to giving false data, which led to misinformation in our reports. These officers were identified and have been cautioned and some will not be used in this season’s distribution.

C. WCS Staffing and staff responsibilities

The meeting noted that staffing was one key fact to improving our operations. WCS has four notable districts in which it is operating for the COMACO program. These are Chama, Lundazi, Chipata, Mambwe, Petauke and Luangwa, covering a total area of over 29,000 sq KM (with 19 chiefdoms in 2003/2004 season, which will increase to 22 chiefdoms in the 2004/2005 season). However, these districts are divided into four regions in regard to coordination of operations and these are:
1. **Chama**: Chama region has only **two** chiefdoms, Tembwe and Kambombo. Coordination of these activities is from the Chama office. This area has one extension officer.

   **Staffing at the Chama region.**
   The region will be managed by Mr. George Nyirenda, extension Officer, Chama area and will be assisted by one stores person (who will also work as an accounts clerk), a shed guard and an office orderly, making it a total of four staff. The extension officer will report to the regional coordinator based in Lundazi (Mr. Nemiah Tembo).

2. **Lundazi**: Lundazi region is the largest area of operation with **nine** chiefdoms, Chikwa, Chifunda, Kazembe, Chitungulu, Nabwalya (these five together with Mwanya, which has been moved to Mambwe this season, are called the **core area**), Zumwanda, Chikomeni, Mwasemphangwe and Chinunda (the last four known as the **Lukusuzi area**). Lundazi region covers areas in two districts, i.e. Lundazi and Chipata (Chinunda is in Chipata district), and although Nabwalya is in Mpika district, we consider it as part of Lundazi region. This area will have two extension officers, one for the core area and the other for Lukusuzi area. Beginning this season however, one more chiefdom has been added to this area, Magodi, which gives the Lundazi office a total of **ten** chiefdoms.

   The above two regions are coordinated by one regional coordinator who is based in Lundazi at the CTC.

   **Staffing at the Lundazi region.**
   Lundazi region will be managed by the CTC based regional coordinator (Mr. Tembo Nemiah), who will have two extension officers (Mr. Moses Kasoka for Lukusuzi and Mr. for the core area). Other staff will include a **data analyst, data entry clerks (two), logistics officer, store man, shed guards, accounts clerk** etc.

3. **Mambwe**: Mambwe region had five chiefdoms (Nsefu, Kakumbi, Malama, Sandwe, Mnhanya) but will have **seven** staring this season with the inclusion of Msoro and Mwanya, which has been moved from the Lundazi region to Mambwe region. The Mambwe region include two districts, i.e. Mambwe and Petauke (Sandwe is in Petauke district).

   **Staffing at the Mambwe region.**
   The Mambwe region is managed by a regional coordinator (Mr. Patrick Nyirenda), who will be assisted by two extension officers, one based at Nyamaluma (to cover Malama and Sandwe), the other based in Mfuwe (to cover Nsefu, Kakumbi, Mnhanya and Msoro and Mwanya). Other staff will include a data analyst and two data entry clerks (one based at the Mfuwe office, the other at Nyamaluma). The data analyst will also work as a logistics officer to ensure data is collected in time and reports made in time.

4. **Luangwa region**: Luangwa region was the smallest area of operation in the last season with only one chiefdom, (Mphuka), with slightly over 1000 households. However, in the 2004/2005 season, chiefs Mpanshya and Mburuma will be added to the operational area, giving it a total of **three** chiefdoms.

   **Staffing at the Luangwa region.**
With the regional office located in Luangwa boma, Luangwa region is managed by a regional coordinator (Mr. Hansen Mseteka), who is also an extension officer and is assisted by a store man who is also an accounts clerk, shed guards and an office orderly.

D. Maize Distribution Logistics

The planning also looked at the movement of maize from WFP to the recipients in order to come up with a strategy that will ensure efficiency in this season. Certain problems arising from past experiences were highlighted and included:

- The pre-positioning of maize at the FDP’s in most cases, led to many costs being incurred at the FDP’s such as rentals and payment of salaries for guards. It was decided that with regard to this, in order to reduce costs, maize delivery to FDPs should be time, where possible, to reduce the time the maize stays in the shade.
- There was no one at the regional offices responsible for logistics to ensure that all logistics who is responsible for indicating what inputs have been received and dispatched and also ensure that logistical documentations, such waybill, stack cards etc. are in place in time, as this reduces and eliminates problems of wrong records. There is need for each regional office to have a logistic officer.
- Raising of waybills for maize distributed to recipients, even before they actually receive it, led to the number of errors recorded, and figures not balancing. It was decided that waybills to the recipients (CRBs), would only be raised after the recipients have received the maize, so that the number of recipients tarry with the amount of maize dispatched to the recipients for that reporting.

Movement of maize from WFP

The following were decided as measure to prevent further mishandling of logistics documentation for maize distribution:

1. Only the store man at EDP, depot managers and FDP and a CRB member of the food committee at the CRB, will sign for the receipts of maize at the respectable destinations.
2. Only the dispatching officer shall raise a waybill with all details filled in correctly. Thus, at the EDP, the stores officer shall raise the waybill while at the FDP, the depot manager shall raise the waybills from FDP to CRB (recipients).
3. Each regional office shall have a logistics officer, through all logistics documentation shall come, and the logistics officer will ensure that logistics documents are collected at the right time in readiness for reporting. The logistics officer at the regional office shall rehearse with extension staff during the collection of logistics documentations (waybills, monthly distribution summaries from depots etc.), and will work with the data analyst and the regional coordinator.
to compile complete and correct reports for WFP. The regional coordinator is the final person to approve the final report before it is taken to WFP and will be responsible for any errors on the report should our partners notice them. The regional logistics officer will then rehearse with WFP’s regional sub-office over the final reports to ensure that the reports are endorsed by WFP sub office as correct before they are sent to the logistics coordinator in Lusaka’s WCS offices.

4 The regional coordinator, working with his extension staff, must liaise with the logistics officer, as to how much stock is needed at the FDP at a particular time. Only then will maize be delivered. The extension officers must ensure that the Depot Manager at the FDP have correctly filled in the logistical documents before collecting them and handing them over to the logistics officer.

5. The logistic officer, working together with stores men at EDP and depot managers at FDP must ensure that each storage shade has stock cards and that maize is bulked according to SI numbers. Each depot/shed shall have an information bulletin board where such information as receipts, dispatches and current stocks shall be displayed for public information. The logistics officer shall make sure that extension officers and depot managers are on schedule in bringing data for reporting, following the drawn timetable.
## Distribution timetable
During the planning meeting, a distribution timetable was agreed upon to ensure timely reporting. The following is the agreed timetable:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Activity</th>
<th>Responsible persons</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>20&lt;sup&gt;th&lt;/sup&gt; – 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Verification of compliance to conditions. Compilation of recipients’ master register Distribution from EDP to FDP</td>
<td>Trainers and depot managers. Supervision by community coordinator and extension officer</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; of following month</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; – 14&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Distribution of maize to recipients who have complied Distribution from EDP to FDP</td>
<td>Depot manager.</td>
<td>14&lt;sup&gt;th&lt;/sup&gt; of Month</td>
</tr>
<tr>
<td>15&lt;sup&gt;th&lt;/sup&gt; – 16&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Compilation of distribution summaries and other logistics documents (waybills)</td>
<td>Depot manager</td>
<td>16&lt;sup&gt;th&lt;/sup&gt; of month</td>
</tr>
<tr>
<td>17&lt;sup&gt;th&lt;/sup&gt; – 20&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Collection of waybills and distribution summaries from FDPs</td>
<td>Extension officers assisted by the logistics officer</td>
<td>20&lt;sup&gt;th&lt;/sup&gt; of Month</td>
</tr>
<tr>
<td>21&lt;sup&gt;st&lt;/sup&gt; – 24&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Compilation and verification of WFP report formats A and C</td>
<td>Logistics officer assisted by the data analyst and regional coordinator</td>
<td>24&lt;sup&gt;th&lt;/sup&gt; of month</td>
</tr>
<tr>
<td>25&lt;sup&gt;th&lt;/sup&gt; – 27&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Submission of reports to WFP sub office for approval and sending of approved reports to WCS Lusaka</td>
<td>Logistics officer</td>
<td>27&lt;sup&gt;th&lt;/sup&gt; of month</td>
</tr>
<tr>
<td>28&lt;sup&gt;th&lt;/sup&gt; – 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Submission of approved reports to WFP Lusaka. Copies should be made at the WCS office before submission</td>
<td>Program Logistics officer</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; of next month</td>
</tr>
</tbody>
</table>

In order to meet these obligations, thus, collect correct data, compile reports and submit to WFP in time, it was agreed during the meeting to set up penalties for staff that do not meet the obligation requirements.

**Penalties:**
- Late reporting – 1st warning then dismissal
- Being drunk during work hours-First warning then dismissal
- Dishonest reporting – Instant Dismissal
- Not reporting at all – Instant dismissal
- Absenteeism from work – 1st warning then dismissal
- Theft – Instant Dismissal
Linkage to CTC

In order to encourage farmers' compliance to good farming practices that are in line with community land use planning, it has been agreed that farmers who fully comply to application of farming skills such as conservation farming, composting, participation in group meeting and also continue to show conservation compliance such as surrendering of snares etc. shall benefit from the CTC through better prices compared to those who do not comply. At the end of an assessment in food production skills, a list of farmer groups who have performed more than others (say with a compliance rate of more than 50%) shall sell their products to CTC at better prices than other (or will be offered better prices for rice, honey, g/nuts, chickens, fish etc.). These groups will also have an advantage over others in accessing inputs such as beehives, chicken vaccines, fishing nets etc. The regional coordinator, working with the CTC manager, shall ensure that at the end of every season, after assessment of farmer groups, the data on group compliance to the food security and COMACO programs is available to the depot managers so that groups who perform well enjoy CTC benefits.

BENEFITS OF FARMERS IN COMACO PROGRAM

In order to encourage people to fully participate in the COMACO food security programs, farmer group members have several privileges:

1. Only group member will be considered for inputs distribution from the COMACO program. This is to say that when COMACO receives inputs for distributing to farmers, privilege will be given to farmer group members.

2. Farmer group members will be considered for newly introduced programs, such as cassava growing, Soya beans cultivation etc, especially those who continuously comply with conditions under the food security program.