University of Nairobi

School of Engineering

Mapping of Agricultural Donor Funding to Kenya

BY

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16th July 2015

Declaration

I, Muthama Mary this project is my original work and has not been submitted elsewhere for examination, award of a degree or publication.

Signature……. Date ……

Muthama Mary

The project has been submitted for examination with my approval as the University Supervisor

Signature……. Date ……

J.N. Mwenda

Acknowledgement

My sincere gratitude goes to my supervisor J. Mwenda for his encouragement and guidance, without which I would not have carried out this study successfully. Similarly, I wish to express my sincere gratitude to all my lecturers for their input, which has been a source of great inspiration towards the successful realization of what I set out to achieve and not forgetting the University of Nairobi for providing me with opportunity to pursue this course.

Abstract

Food insecurity in Kenya and among other developing countries remains a key issue to be addressed. Millions of Kenyan people require food assistance each passing day. Kenya has high agricultural potential with diverse ecologies suitable for multiple socio-economic practices that can help drive her citizens out of hunger. The country receives a lot of support from the donor community. In an effort to minimise duplication of efforts and enhance efficiency in project monitoring, donors were encouraged to make public their investments during the Paris Declaration on the Aid Effectiveness in the year 2005. This resulted in several websites collating and publishing donor projects and their details. This project samples several donor projects from a collection of websites, and uses GIS to visualise the funding on agriculture to Kenya, the type of assistance received from each donor, the aspects being funded by each donor and the gaps that need be looked at in future investments. Quota sampling was done to create a proportionate sample and data were analysed and visualised using Cartograms, thematic maps, pie charts and flow diagrams. This study has demonstrated that renewed momentum in donor investments, compiling a comprehensive central resource detailing donor efforts in the country can really be a major step towards alleviating hunger in Kenya.

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List of Acronyms

AFDB	African Development Bank
AIDA	Accessible Information on Development Activities
BADEA	Arab Bank for Economic Development in Africa
BMGF	Bill & Melinda Gates Foundation
CAADP	Comprehensive Africa Agriculture Development Programme
DAC	Development Assistance Committee
EC	European Community
GEF	Global Environment Facility
GIS	Geographic Information System
FAO	Food and Agriculture Organization
IATI	International Aid Transparency Initiative
IMF	International Monetary Fund
KLMC	The Kenya Livestock Marketing Council
NALEP	National Agriculture and Livestock Extension Program
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
ODA	Official Development Assistance
OFID	OPEC Fund for International Development
SIDA	Swedish International Development Agency
UK	United Kingdom

CHAPTER 1: INTRODUCTION

1.1 Background

According to Government of Kenya, Agricultural Sector Coordination Unit (2011), over 10 million people in Kenya suffer from chronic food insecurity and poor nutrition, and between two and four million people require emergency food assistance at any given time. Nearly 30% of Kenya's children are classified as undernourished, and micronutrient deficiencies are widespread. Kenya depends heavily on agriculture, which makes up 27% of total GDP and employs over 70% of the working population. More than three quarters of the Kenyan population lives in rural areas, and rural households rely on agriculture for most of their income. The rural economy, in turn, depends mainly on smallholder farming, which produces the majority of Kenya's agricultural output (Gamba, 2010).

Majority of the poor people live in the central and western regions surrounding the high agricultural potential areas of Mt. Kenya. The rate of poverty and food insecurity in the arid and semi-arid lands remain acute. The yearly increase in Kenya's population growth has seen larger populations competing for the same resources on a daily basis. The youth has become particularly vulnerable to poverty. Rural women whose primary source of livelihood is subsistence farming remain with no access to social and economic assets. Yet women and young people have great potential for contributing to economic development and social progress if they are able to fulfil their potential. According to IFAD (2013), agriculture-led growth in Kenya is more than twice as effective in reducing poverty as growth led by industry.

Kenya's government financial support to agriculture has been declining over the years. Kenya used to spend over 10 percent of its total government budget on agriculture in the first decade after independence (Gamba, 2010). This declined to an average of 7.5 percent in the period between 1980 and 1989 and plummeted to a record low of 3 percent in the 1990 to 2000 period. The total expenditure to the sector as a percentage of total government expenditure increased marginally from 1.2 percent in 2000/1 to 6.5 percent in 2008/9 financial year. The governments' financial support decline to agriculture can be attributed to evident and massive support of agricultural science from industrialized countries. Donors have provided financial and technical support to national agricultural research systems in the country. They have as

well supported capacity building to Kenyan scientists through support of trainings at foreign universities and organizing in country training programs. Several donor governments have brought in expatriates to assist in training and research, and facilitated the movement of knowledge and materials for agricultural research and development. The donor support has tremendously enhanced agricultural productivity and helped improve food security in the country. However, it is evident that the level of donor support and level of food security are not commensurate. How sustainable donor funded projects in the country are, and how well distributed these donor funded projects are, remains the main lingering questions. This project looks at what the donor community has done so far and establish the neglected areas in an effort to help the actors in the agricultural sector to make informed decision addressing the gaps and ultimately improve food security in Kenya.

1.2 Problem Statement

Kenya's agricultural sector receives a lot of support from the government and the donor community in funds that are meant to implement agricultural projects in certain parts of the country with the aim of improving food production. Kenya has the largest and most diversified economy in East Africa Thus with necessary technical and financial support, Kenya can produce enough food to feed itself and extra for export. Nevertheless, 40 percent of Kenyans live below the poverty line and more than 1.6 million require immediate food assistance (USAID, 2015). The status of food security in Kenya remains wanting, with the population increasing each passing day.

There is a growing body of agricultural investment in the country from donors all over the world with donors funding different aspects in different locations in the country. With no central database that tracks what is being funded and where, chances of duplication remain high and the accountability and impact of these projects remains unknown. Hoevel (2010) states that "*Increased transparency on how commitments are being realised is an important component of ensuring that multiple programmes are working together more efficiently toward a shared goal*". An outcry from the donor community has seen a number of donors publish details of their projects on their websites. Websites among them OECD Statistics-*http://stats.oecd.org/, aiddata.org* have come up to collate information on what the donors

fund, how much they have committed, who the beneficiaries are and what type of assistant each beneficiary gets. This project looks at the agricultural donor fund datasets to establish where the efforts are being concentrated, establish the glaring gaps, and inform organizations on where to get funding, as well as inform the donor community on the areas they need to focus on, all contributing to achieving a food secure country.

1.3 Objectives

Main Objective

The main objective of this project is to establish the major sources of donor funding to Agriculture in Kenya, agricultural aspects that receive the funding, the beneficiaries of the funds and use GIS to visualise these aspects on a map.

Specific Objectives

Specific objectives in the project include:-

i. To determine the major sources of funding to the Kenyan Agricultural Sector
ii. To determine the major beneficiaries of donor funding in Kenya
iii. To identify the various agricultural aspects funded
iv. To establish areas lacking donor funding in Kenya
v. To map the beneficiaries on a map

1.4 Justification for the Study

Each year, billions of dollars are spent to improve the lives of citizens in Kenya. With the availability of comprehensive and relevant data, governments can make better decisions to plan for their country's future, citizens can hold their leaders to account for providing public goods, and donors can review their investment efforts in a bid to maximize development results. Mapping of donor funding will help to visualize agricultural donor's inflows into the country. This will benefit resource mobilization officers, start-up NGO's, in getting information on where to get more funds for their projects. The report will also become a resource for anyone interested in knowing who funds agriculture in Kenya, major aspects that are being funded and areas not receiving enough funding.

1.5 Scope and Limitation of the Study

The project aims to determine the major donors to Kenyan Agriculture from the year 2000 to 2013. It looks at the available data from donors' websites as well as collated aid data from recommended sites. It only looks at the major agricultural aspects funded in Kenya including fishing, livestock, horticulture, Tea, Policy, Agri-business, Agro-forestry, Natural Resource Management and Water and Irrigation. The project only considers data that is available on the websites bearing in mind that several donors have not yet published their details. About eight hundred (800) Agricultural projects were sampled and used for this project. Generally, the project looks at effort spectrum of agriculture donors in Kenya but does not determine the impact of these donor funded projects.

1.6. Organization of the report

Chapter one gives a general overview on the current situation of food insecurity in the country. It shows the potential of agriculture in the Kenya in alleviating hunger and poverty and further shows the various ways Kenya funds these activities. It gives an introduction to the problem, and states the various issues to be addressed during the research. Chapter two gives a brief history of foreign aid and furthers looks at foreign aid in agriculture to Kenya. It looks at what different researchers have written as far as agricultural foreign aid is concerned. It further looks in detail at the study area discussing the potential agricultural activities in each agro-ecological zone.

Chapter three describes the methodology used in carrying out the project. It illustrates the sources of data, the different sampling methods used, and further discusses analysis, mapping and visualization tools used in the research. Chapter four gives analysis of the results based on the project specific objectives. This chapter provides answers to all the research questions based on the findings of the research. Chapter five gives the conclusions derived from the results, and recommendations to better agricultural funding in alleviating hunger and poverty in Kenya.

CHAPTER 2: LITERATURE REVIEW

2.1 History of Foreign Aid

The concept of foreign aid dates back to the 17th Century. Its earliest form was military assistance designed to help warring parties that were in some way considered strategically important. Its use in the modern era began in the 18th century, when Prussia subsidized some of its allies (Williams, 2014). European countries began giving aid to poorer countries particularly their colonies in the 19th century and by the early 1930s, the colonialists were providing regular aid to their colonies in Africa, Latin America and Asia. This aid was meant to build infrastructure and development activities. The aid continued even after the colonies gained independence with a focus was on economic development (Eyben, 2005).

During the Cold War, dramatic shifts in political, economic and moral allegiances emerged. People began to talk about poverty, and they were concerned why people were poor, and whether it was possible to have economic growth that was more equitable, economic growth that focused on reducing poverty rather than just assuming that if you had growth everybody would ultimately benefit. Within a few years the world had split into what were called three worlds: the first world, Western democratic countries; the second world which was the Soviet Union and its Communist satellites; and then what became known as the third world, which were the former colonies and countries that had come under imperial influence, which were now all independent and that formed themselves into the non-aligned movement in the early 1950s **(**Eyben, 2005).

According to Williams (2014), the structure and scope of foreign aid today can be traced to two major developments following World War II: first, the implementation of the Marshall Plan, a U.S.-sponsored package to rehabilitate the economies of seventeen (17) western and southern European countries, and second, the founding of significant international organizations, including the United Nations, IMF, and World Bank. These international organizations have played a major role in allocating international funds, determining the qualifications for the receipt of aid, and assessing the impact of foreign aid. Contemporary foreign aid is distinguished not only because it is sometimes humanitarian (with little or no self-interest by the donor country) but also by its size, amounting to trillions of dollars since

the end of World War II, by the large number of governments providing it, and by the transparent nature of the transfers. The assumption during this period was that the old colonial powers would gradually phase out their direct financial aid as colonies became independent and multilateral organizations like the UN, the World Bank and the International Monetary Fund would take over development work (Phillips, 2013).

The UN family of organizations and the World Bank conceded that, whilst the old model of development aid led to some significant economic growth, it had made little impact on social indicators of poverty such as life expectancy, infant mortality rates, and income distribution and education levels. Recession in the industrialized world and debt crisis in developing countries ensues. The structural adjustment policies of the World Bank and regional development banks force major economic reforms through privatization and deregulation in the developing world 2000 Millennium Development Goals (Aidwatch, 2008).

At the end of the 1960s, ideas about the purpose of aid began to change under the influence of Robert McNamara, who became head of the World Bank in 1968. He promoted the idea of using donor-funded programs to meet people's basic needs in health, education, water and sanitation. The northern European donors like Sweden, which historically hadn't had colonies, so it didn't have the reason to be giving money to ex-colonies in the way that Britain and France did, started to recognize the need for aid on humanitarian grounds and so also adopted these targets and started to develop aid programs in particular focus countries (Phillips, 2013).

According to Williams (2014), foreign assistance is still used to promote economic development. Although significant development occurred in much of Asia and Latin America during the second half of the 20th century, many countries in Africa remained severely underdeveloped despite receiving relatively large amounts of foreign aid for long periods. Foreign aid has been used, particularly in poorer countries, to fund or to monitor elections, to facilitate judicial reforms, and to assist the activities of human rights organizations and labour groups. In the post-Cold War era, when funding anti-communist governments became a less important criterion for the United States and its allies, promoting democracy was elevated as

a criterion in foreign aid programs. Aid was provided to some countries as an incentive for initiating democratic reforms and was withheld from others as a punishment for resisting such reforms. Since the 1990s many foreign aid sources, notably the IMF, have made aid conditional on market-oriented economic reforms, such as lowering trade barriers and privatization. Thus, foreign aid has been used as a tool by some institutions and countries to encourage the spread of capitalism.

In the last decade of the 20th century, private capital flows and remittances from migrant workers became the two largest sources of aid from wealthy countries to poor ones, surpassing the amount of ODA provided by those countries. However, this form of aid is heavily stratified; most direct foreign investment has gone to developing countries pursuing policies of trade and economic liberalization and those with large markets (such as Brazil, China, and India). Several non-European governments also implemented their own aid programs after World War II. For example, Japan developed an extensive foreign aid program that provided assistance primarily to Asian countries. Much of Japan's aid came through procurement from Japanese companies, which helped fuel economic development in Japan. By the late 20th century, Japan had become one of the world's two leading donor countries, and its aid programs had extended to non-Asian countries, though much of the country's assistance was still directed toward Asia (Williams, 2014).

Private foundations are among the so-called 'new' actors in international development that have the potential to provide additional and alternative sources of financing for development and introduce innovative models of providing development assistance. Recognizing the potential contribution that new actors can make to achieving development goals, the traditional OECD-DAC donor community has sought to expand dialogue with these players under the umbrella of an emerging Global Partnership for Effective Development Cooperation, an extension of efforts to improve aid and development effectiveness. Although private foundations have attracted growing interest in the development policy community, there is still a limited information base on the nature of the priorities of those foundations in development, their modes of implementing assistance, their relationships with developing

country partners, and their relationships with official aid programmes (Erik and Hannah, 2012)

2.2 Foreign Aid on Agriculture

Agriculture is a major sector in Kenya and although its contribution to the gross domestic product (GDP) has declined from 35 percent in 1964 to 25 percent in 2009, its contribution to development is still significant (Agricultural Sector Coordination Unit, 2011). Agriculture employs about 75 percent of the labour force, provides raw materials for the agro-based manufacturing industries (which constitute 70 percent of all industries) and accounts for about 45 percent of the government revenue. It is estimated that the sector contributes about 60 percent of Kenya's export earnings. The importance of the sector is reflected in the relationship between its performance and that of the economy. Besides, the sector is the growth engine for the non-agricultural sector with a multiplier effect of about 1.64 (Block and Timmer, 1994).

Agricultural sector in Kenya continues to face a number of constraints which vary with respect to commodities and regions. The main hindrances to agricultural growth include poor infrastructure, low productivity, poor land use, low value addition, inefficient marketing systems and distributions which have failed to stimulate agricultural productivity, and poor infrastructure. The sector has been receiving decreasing budgetary allocation. This is against the spirit of the Maputo Declaration 2013, which sought to increase the average budgetary allocation to agriculture to 10 percent of the national budget. In Kenya, the current budgetary allocation to the agriculture related ministries is 7 percent while the Ministry of Agriculture alone receives about 2 percent of the National Budget. The lack of funding especially for development budget has curtailed the sector's growth (Gamba, 2010).

The New Partnership for Africa's Development (NEPAD) was instrumental in bringing up agriculture on the national and international policy agenda in the 2003 CAADP (Comprehensive Africa Agriculture Development Programme) framework. Given the limited financial resources available to most African governments, it has become critically important to mobilise additional resources, including those coming from bilateral and multilateral

donors and the domestic and international private sector. Additional resources are clearly needed (OECD, 2015)

Donors contribute about 67 per cent of the total funds allocated for agricultural research in Kenya. The problem with donor funding, however, is that it is unstable; it, therefore, is not a sustainable long-term strategy for agricultural development. The decline in public funding on agriculture and the unstable donor funding are factors which can partly explain the decline in agricultural growth (Nyangito and Okello, 1998). Analysis done by Development Initiatives (2012), shows that, aid to Kenya dropped drastically in the 1990s from US$1.8 billion in 1990 to US$426 million by 1999 representing a more than double decrease in aid. After 1999 however, aid to Kenya began to steadily increase, but dipped in 2002, which coincided with an election year and the beginning of a new government regime. By 2010 aid reached US$1.6 billion. In 1997 aid per capita was US$22 compared to US$40 in 2010.

Every year between 2006 and 2010 the US has been the top donor to Kenya, contributing a sum of US$2.4 billion (Development Initiatives, 2012). Of this, US$505.4 million has funded population and reproductive health. Japan and the UK have also been funding activities in the country with the UK prioritising education funding and Japan prioritising health. The report further states that Sweden is the largest donor in funding agriculture in Kenya, having contributed 21% (US$55.2 million) between 2006 and 2010 (see Appendix 1). According to the Swedish International Development Cooperation Agency- (SIDA, 2009), Sweden's top priorities to Kenya include: democracy and human rights, environment and natural resources (when linked to agriculture) and urban development. Specifically for agriculture, Sweden supports the commercialisation of farming, for example the National Agriculture and Livestock Extension Program (NALEP), a network that offers financing and advice to small farmers.

GIS technology can play a major role in complimenting donor efforts in supporting agriculture to Kenya. As Edemba, A (2012) states: '*GIS will play a big role in economic growth business growth is location based and GIS has proven to be very useful in asset management, suitability analysis, policy making and impact analysis, site selection and*

marketing'. This is done by using GIS to select the best areas for business location, best economic development activity that's most suitable for what regions and to determine the growth (if any) in business and the impact on the Economy.

Kenya aims to promote an innovative, commercially-oriented, and modern agricultural sector, through transforming key institutions in agriculture and livestock to promote agricultural growth; increasing productivity of crops and livestock; introducing land use polices for better utilisation of high and medium potential lands; developing more irrigable areas in arid and semi-arid lands for both crops and livestock; and improving market access for our smallholders through better supply chain management.

Kenya Vision 2030 aims at adding value to our farm and livestock products before they reach local and international markets (Edemba, 2012). GIS is used in a variety of agricultural applications such as managing crop yields, monitoring crop rotation techniques, and projecting soil loss for individual farms or entire agricultural regions. Balancing the inputs and outputs on a farm is fundamental to its success and profitability. The ability of GIS to analyse and visualize agricultural environments and workflows has proven to be very beneficial to those involved in the farming industry.

2.3 Study Area

Kenya lies in sub Saharan Africa with a population of about 40 Million people. Less than 20% of the land is suitable for cultivation, of which only 12% is classified as high potential (adequate rainfall) agricultural land and about 8% is medium potential land. The rest of the land is arid or semiarid. About 80% of the work force engages in agriculture or food processing. Farming in Kenya is typically carried out by small producers who usually cultivate no more than two hectares (about five acres) using limited technology. These small farms, operated by about three million farming families, account for 75% of total production. Although there are still important European-owned coffee, tea, and sisal plantations, an increasing number of peasant farmers grow cash crops (Encyclopedia of the Nations, 2015). A close look at the classification done by FAO (1996), (Figure 2-1) below, shows the shows the agricultural potential of each region in Kenya.

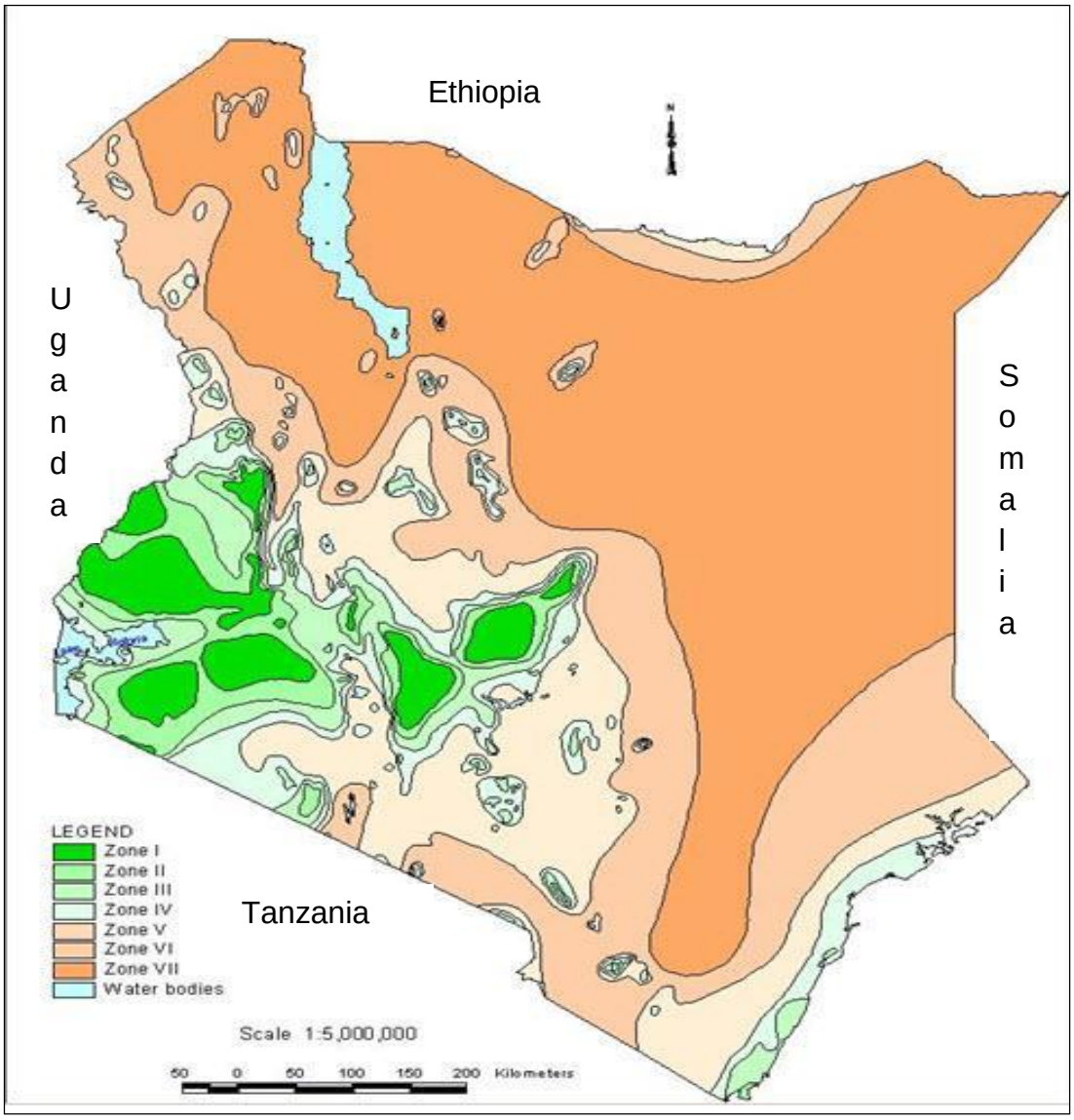

Figure 2.1: Kenya Agri-ecological Zones

Source:- (FAO, 1996).

Zone I includes the mountains and immediate surrounding such as Mt. Kenya and Mt Elgon. It's a source of rain and some rivers/streams. It has no direct importance in agricultural production. Zone II is restricted to the highlands of Kenya between 1980 and 2700 m and occurs as a forest or open grasslands. This zone is found in the surrounding of Mt Kenya (parts of Meru, Embu, Kirinyaga and Nyeri), isolated parts of the Rift Valley around Mau and Aberdare mountains (e.g. around Kericho and Nyahururu respectively) and the surrounding of Mt Elgon (e.g. around Kitale and Webuye). Zone III occurs mainly at

elevations between 900 - 1800 m with an annual rainfall between 950 and 1500 mm. Trees are numerous here and somewhat of shorter stature than in Zone II. This zone is the most significant for agricultural cultivation and several legume fodders are found here in crop-livestock systems. It occurs in the vast parts of Nyanza, Western and Central provinces, good proportion of Central Rift Valley (Nandi, Nakuru, Bomet, Eldoret, and Kitale) and a small strip at the Coast Province. Zone IV occupies more or less the same elevation (900 - 1800 m) as the previous or may be at times lower. However, it has lower annual rainfall of about 500 - 1000 mm

Zone V is much drier than Zone IV and occurs at lower elevations. Annual rainfall is 300 – 600mm. This Zone is prevalent in northern Baringo, Turkana, lower Makueni and vast parts of North Eastern Province. Zone VI is considered as semi desert and is the driest part of Kenya. Annual rainfall is 200 - 400 mm and is quite unreliable. The zone is found in Marsabit, Turkana, Mandera and Wajir County. Zone VII is represented by Chalbi desert in Marsabit district. Pastoralists use it as a source of mineral lick for livestock, particularly during the rainy season (Figure 2.1).

CHAPTER 3: MATERIALS AND METHODS

3.1 Data Sources

Data were acquired from the following sites:-Aiddata.org, OECD stats, IATI Data Registry, World Bank, and Diva GIS.org. Table 3.1 below summarises the type of data obtained from each source.

Table 3.1: Datasets used in the project

Data set	**Data type**	**Data source**
Kenyan Counties	Shape file	DIVA GIS.org
Agricultural Projects funded in Kenya	Excel file	World Bank, OECD stats, Aiddata.org, IATI Data Registry

The raw data was compiled in a common excel document, filtered and duplications eliminated. The data contained information on the title of the projects, who funds what project, where the donors come from, the amount of money disbursed for each project, the year the disbursement was done and the type of assistance provided (see Appendix 2). However, this information lacked two critical aspects for the research; aspects being funded and the beneficiary for each project. To obtain these, the titles were used as search terms to find the original proposal from the parent website. The information was then used to determine the beneficiary of the project as well the aspect being funded.

The following data sets were eventually obtained:-

i. Kenyan Counties -This dataset contained shape file of the Kenyan counties.
ii. Agricultural Aspects funded - A dataset containing details on the agricultural activities funded by each donor, this include fishing, livestock, horticulture among others.
iii. Beneficiaries in terms of provinces, counties and villages - A dataset of the target area of the project in terms of province, county or district.
iv. Amount of funds disbursed in each target location - A dataset containing the amount of funds committed by the donor for each location.

v. Organisation donors funding each aspect – A dataset containing details of donor funding each project. This includes BMGF, AFDB, the World Bank among others.

3.2. Study Design

Quantitative online research method was used for this research. Online research methods are ways in which researchers collect data via the internet also referred to as Internet research. Data on donor funding in Kenya were downloaded from Aid data.org, OECD stats, IATI Data Registry, AIDA Development Gateway, and the World Bank. These were merged, sorted and all the duplications eliminated. Since most of these data had no packaged location information, there was need to sample a few projects for analysis. Proportionate Quota sampling was used to create a representative sample of the total projects.

Quota Sampling

Quota sampling is a type of non-probability sampling technique. Non-probability sampling focuses on sampling techniques that are based on the judgement of the researcher

The following are reasons why quota sampling was preferred:-

i. Ability to create a sample that is as representative as possible of the population being studied.
ii. Quota sampling is much quicker and easier to carry out because it does not require a sampling frame and the strict use of random sampling techniques.
iii. The quota sample improves the representation of particular strata (groups) within the population, as well as ensuring that these strata are not over-represented
iv. The use of a quota sample, which leads to the stratification of a sample allows for easier comparison between these groups (strata).

Steps

Data from the different sources were merged together and duplications eliminated. The total number of projects (T), funded by each donor were determined. A sample size was calculated based on the projects funded by each donor.

The formula (t/T*100) was used to calculate the sample size (see *Appendix 4*) where;

t refers to number of projects funded by each donor

T refers to the total number of projects.

The total number of selected projects used for the research was 800.

3.3 Data Analysis, Mapping & Visualization

3.3.1 Flow maps

Flow maps show the movement of some phenomenon, normally goods or people, from one place to another. Lines are used to symbolize the flow, typically varied in width to represent differences in the quantity of the flow (ESRI, 2015a). In this project, radial flow maps were created to show the donor inflows into the country. Lines were used to symbolize the flow with the width representing the amount of money committed and disbursed. To create flow line, the XY to Line tool in ArcGIS 10.2.2 was used. The XY to Line tool is located in the Geo-processing>arc toolbox>Data Management > Features. Figure 3.1 below illustrates parameters defined for the tool:

Flow map Parameters

i. Input Table: donors dataset (in .xls format) containing the Names of donor Organisation
ii. Output Feature Class: feature class named Sheet1_Features_XYToLine3
iii. Start X Field: Longitude of the donor organisation locations
iv. Start Y Field: Latitude of donor organisation locations
v. End X Field: Longitude of the destination-Nairobi
vi. End Y Field: Latitude of destination-Nairobi
vii. Line Type: Geodesic lines curved lines that represent the shortest great circle path between the origins and destinations.
viii. Geodesic ID (Optional): GEONAMEID field to give each flow line created the same ID as the input table. Used 1-22
ix. Spatial Reference (Optional): GCS_WGS_1984

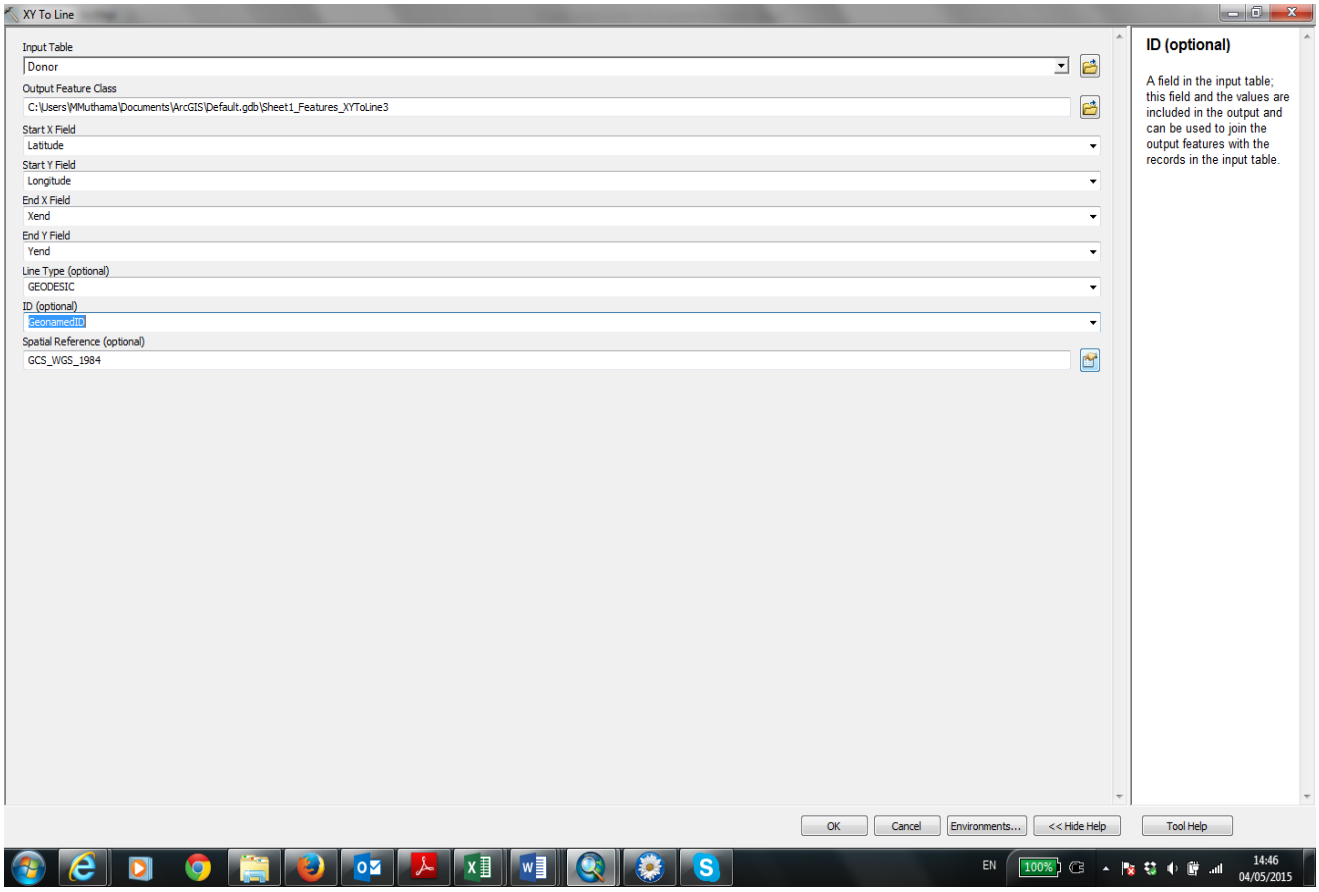

Figure 3.1: Flow map Parameters

The latitude and longitude of donor agencies were obtained from Google maps. Using the names of the donor agencies, the exact location was determined from Google map and on right clicking, coordinates were obtained.

3.3.2 Cartograms

A cartogram is a map in which some thematic mapping variable – such as travel time, population, or Gross National Product – is substituted for land area or distance. The geometry or space of the map is distorted in order to convey the information of this alternate variable. There are two main types of cartograms: area and distance cartograms. In this project, area cartogram was used to distort the area of each province in Kenya based on the

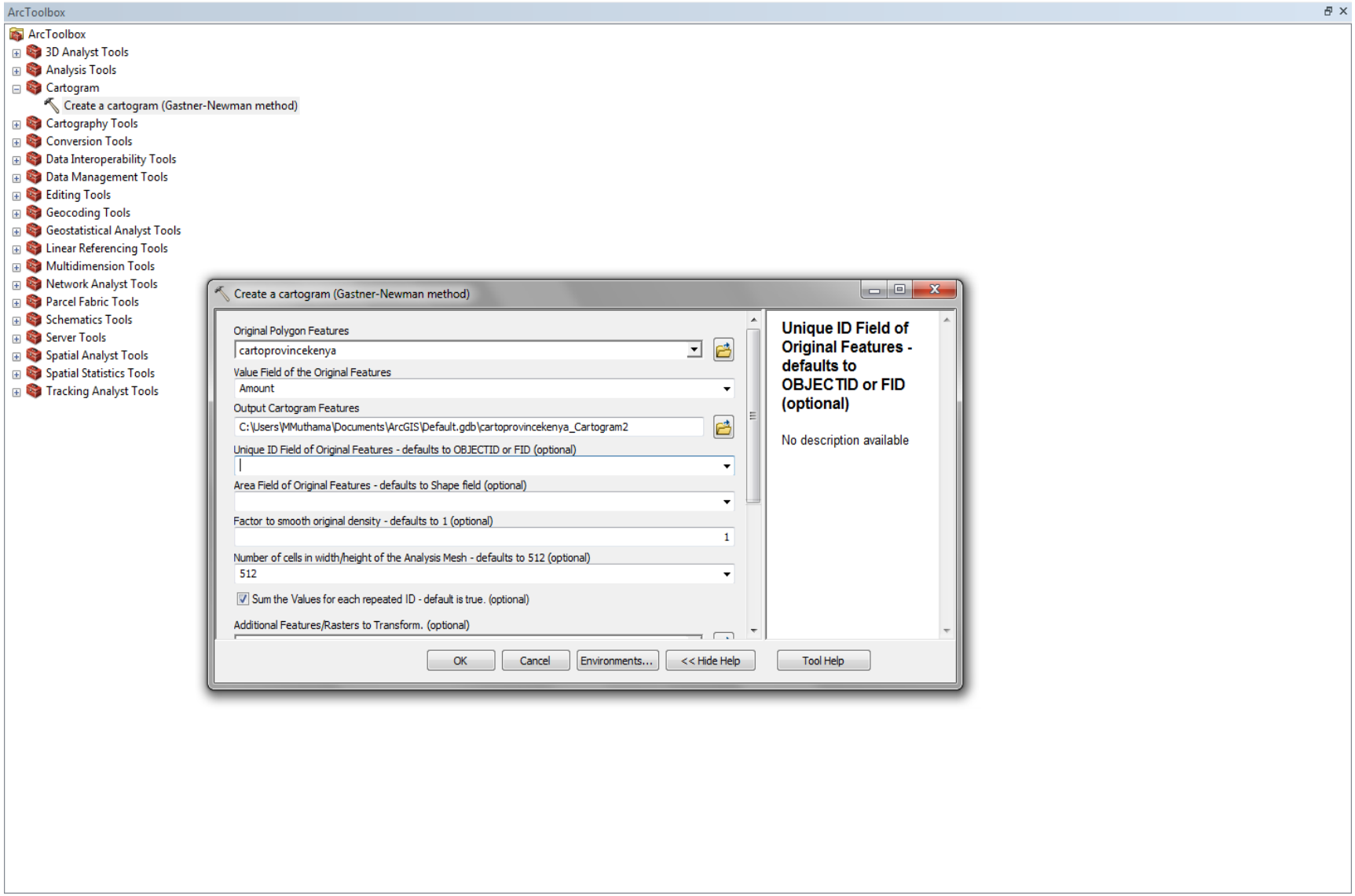

Figure 3.2: Cartogram Parameters

amount they have received since 2000 to 2013. Cartogram Geoprocessing Tool version 2 was downloaded from ESRI website, installed and added onto ArcMap. The tool was then accessed via Geo-processing>arc toolbox> Cartogram> Create a cartogram> (Gastner-Newman Method). Figure 3-2 illustrates parameters defined for the tool

Cartogram Parameters

i. Original Polygon Features-Kenyan province dataset
ii. Value field of the original Features-Amount of funding received in each province
iii. Output Cartogram Features- Saved as cartoprovincekenya_Cartogram3
iv. All the other field were left blank, OK was hit to generate the cartogram.

3.3.3 Thematic Maps

According to ESRI (2015b), a thematic map is a map designed to convey information about a single topic or theme, such as population density or geology. Thematic maps usually focus on just one theme with only minimal reference information to provide the map reader with geographic context. The goal of a thematic map is to draw the reader's attention to the significance in the distribution of one or few geographic phenomena. The emphasis of thematic maps is on the geographic pattern of the feature attributes. Choropleth, Proportional symbol, and Dot maps were used for symbolization. To visualize data in a thematic map, county shape file was imported to ArcMap 10.2.2. The excel worksheets containing the data on water and irrigation funded in the county was also added. The two datasets were merged though Join operation by right clicking the county shape file and choosing Join and relates then Join. The county names were chosen as the basis for joining these two sets in both options. The Excel worksheet containing the amount of funding per county was chosen as the table chosen to join to the layer.

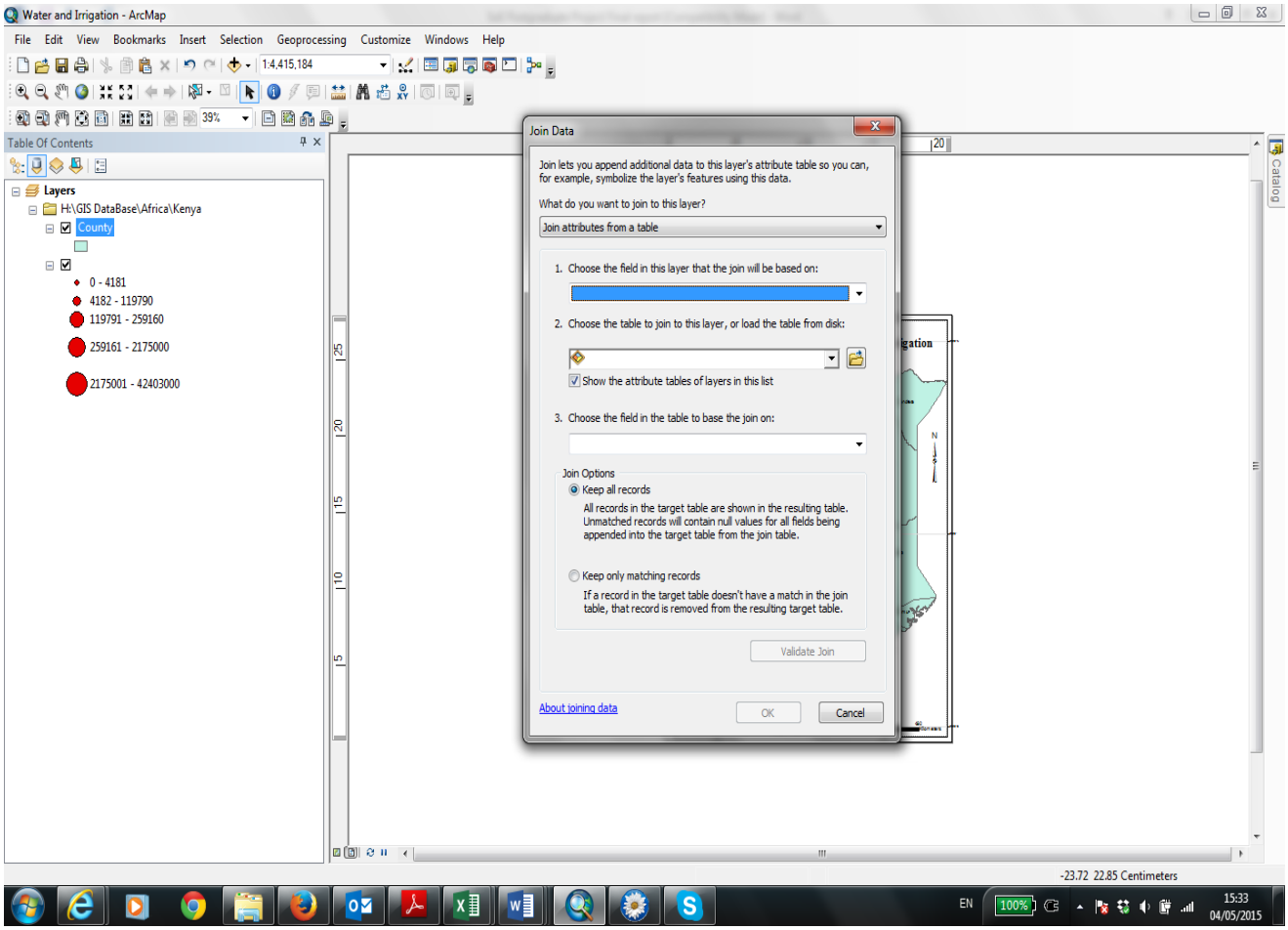

Figure 3.3: Join Operation thematic Maps

Double clicking the merged county shape file opened the layer properties where symbolization was done through the symbology tab - graduated symbols then five classes were chosen for this map. Left clicking on the label tab was done to format the figures to zero decimal place. Thematic maps were used to bring attention to the glaring gaps in agricultural funding, show the areas receiving the highest funding.

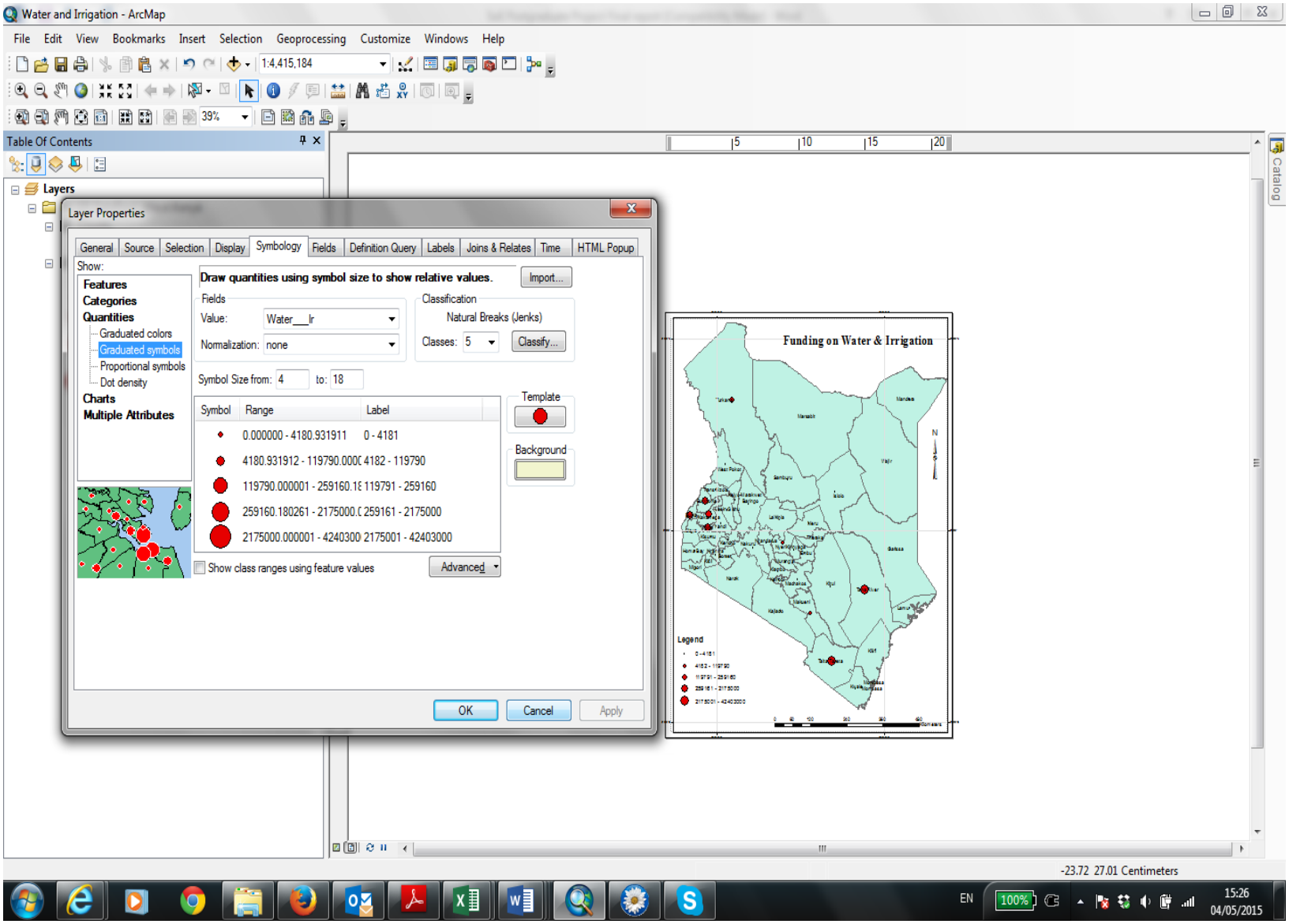

Figure 3.4: Symbolizing thematic map

CHAPTER 4: ANALYSIS & DISCUSSION OF RESULTS

4.1 Major sources of donor funding to Kenyan Agriculture

Kenya's Agriculture is funded by multilaterals, individual governments and Private foundations. Multilaterals are agreements involving more than two nations/parties. These include the;- African Development Bank (AFDB) Group, Arab Bank for Economic Development in Africa (BADEA), European Communities (EC),Global Environment Facility (GEF), OPEC Fund for International Development (OFID), United Nations, and the World Bank. Individual governments supporting Kenyan agriculture include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Kuwait, Luxembourg, Netherlands, New Zealand, Norway, Slovak Republic, Spain, Sweden, and Switzerland. Private Foundations supporting Kenya's agriculture include the Bill & Melinda Gates Foundation. Figure 4.1 below is a flow map showing the major donors funding agricultural sector in Kenya.

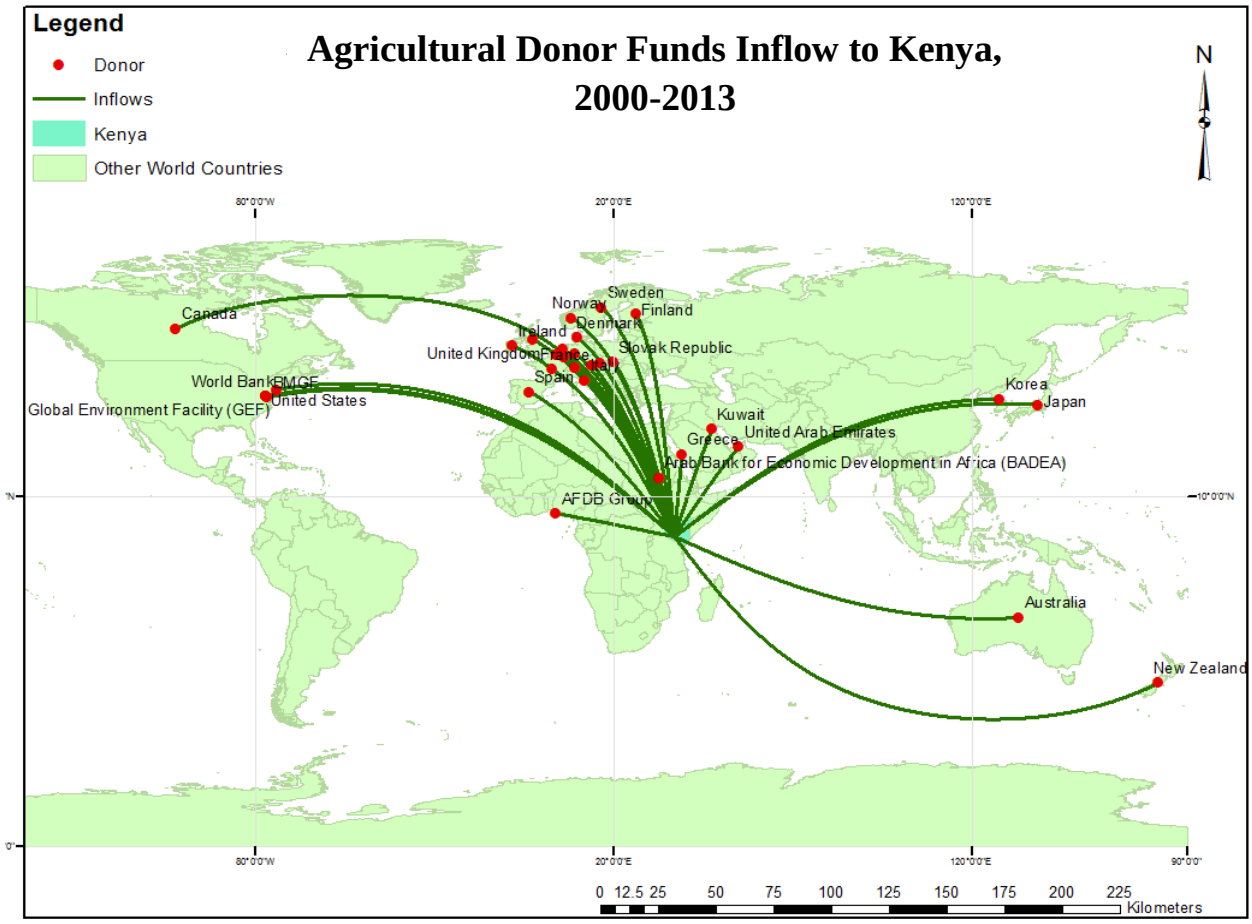

Figure 4.1: Major donors funding agricultural sector in Kenya

The level of support Kenya has received from the donors for Agricultural activities varies widely. A lot of support comes from the World Bank, Japan and the European community. Figure 4.2 below gives an indication of the level of support from the different donors.

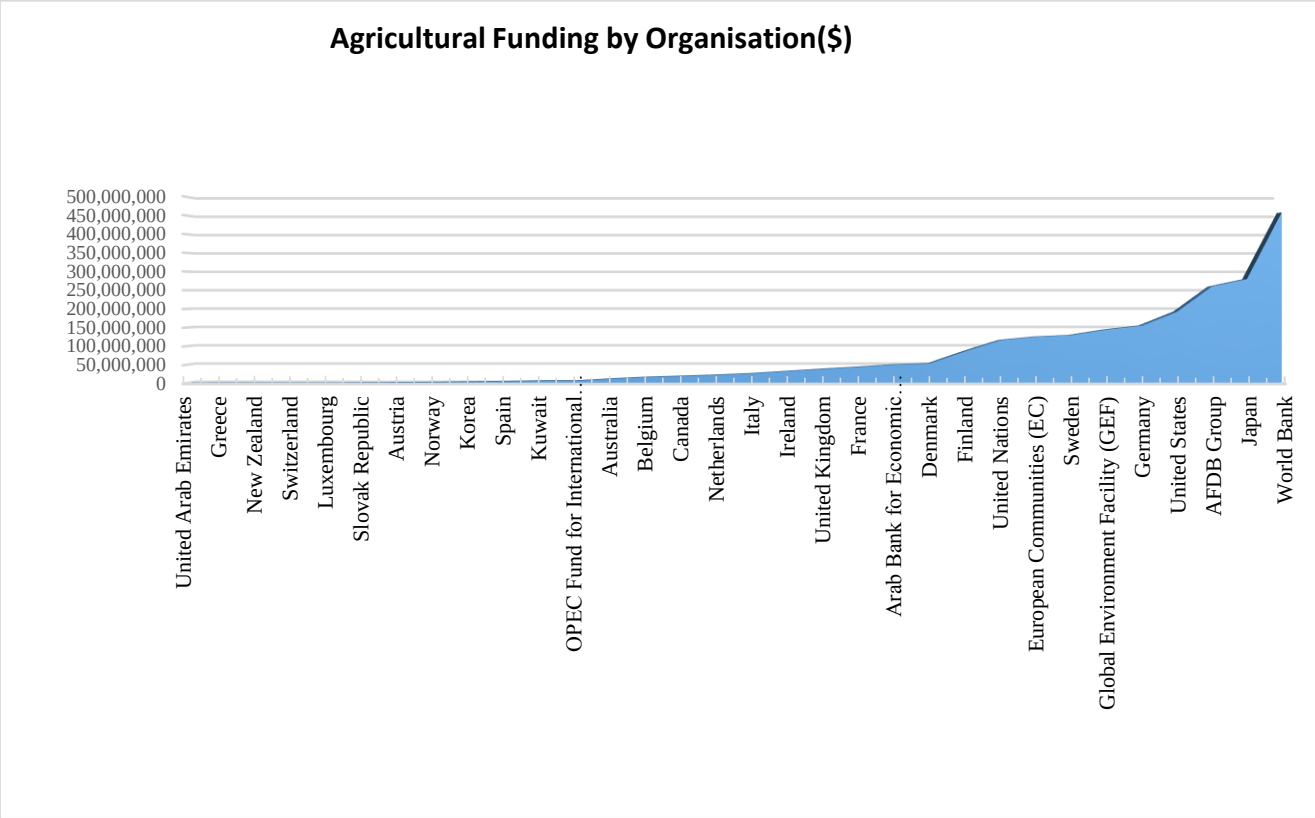

Figure 4.2: Donors Level of Support to Agriculture in Kenya

4.2. Type of Assistance to Kenyan Agriculture

Kenya receives donor funding in terms of loans, grants and in other cases equity. A loan is a debt provided by one entity (organization or individual) to another entity at an interest rate, and evidenced by a note which specifies, among other things, the principal amount, interest rate, and date of repayment. Kenya usually gets concessional loans, sometimes called a soft loan, which refers to a loan granted on terms substantially more generous than market loans either through below-market interest rates, by grace periods or a combination of both. Most Multilaterals give loan to Kenya. Grants are non-repayable funds or products disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a nonprofit entity, educational institution, business or an

individual. Grants to Kenya's Agricultural activities, comes from the private foundations, Asia, Oceania, Europe and the United States.

Equity refers to ownership interest or claim of a holder of common stock (ordinary shares) and some types of preferred stock (preference shares) of a company. The European communities supporting horticultural activities in terms of equity. Figure 4.3 below shows the type of assistance received from the donors.

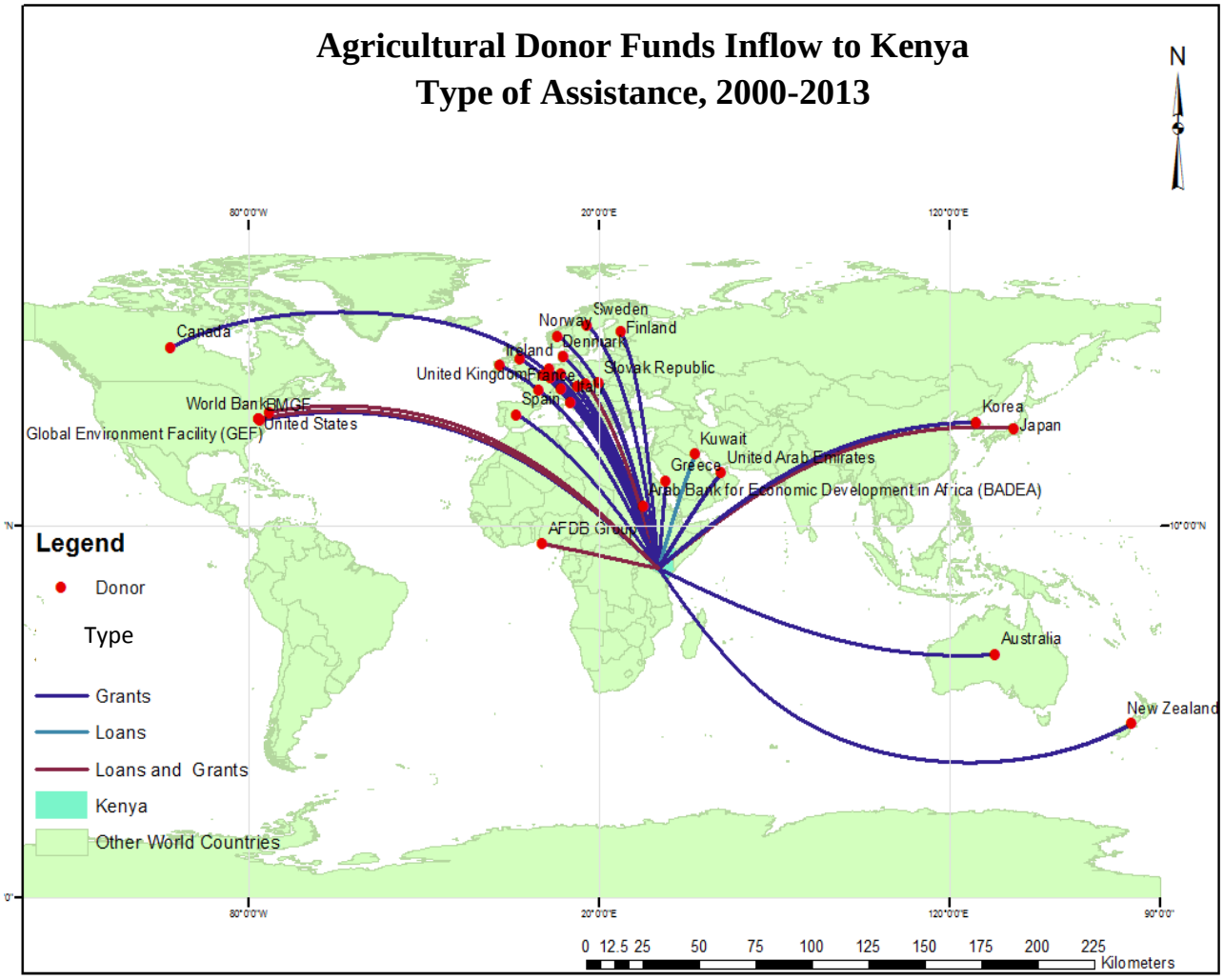

Figure 4.3: Type of Assistance

4.3 Agricultural aspects funded

Analysis of the results showed that donors are keen to support the following aspects on Kenyan agriculture:-

4.3.1 Agri-business

This involves the use of agrichemicals, breeding, crop production (farming and contract farming), distribution, farm machinery, processing, and seed supply, as well as marketing and retail sales. Denmark, Belgium, Japan, Ireland, Canada, Denmark, France, Sweden, World Bank and BMGF are the donors who supported agri-business in Kenya.

4.3.2 Fish Farming

Fish farming refers to the rearing of water dwelling organisms in controlled or semi controlled environments to enhance productivity. It is also used to refer to Aquaculture, Pond Culture and Mariculture (fish farming in sea water). Donors who gave grants in support of fish farming included the Spain, Norway governments, Italy and the United Arab Emirates.

4.3.3 General Food Production

This includes all funds given to support multiple agricultural aspects in the same agro-ecological zone. Donors have no specific field *per se* but were interested in improving the agricultural production in a certain area. Amalgamation of livestock, fish farming, marketing, agro-forestry intercropping practices, fertilizer application all were classified in this area. Most donors offered support to general food production in an area of interest. They include Austria, Belgium, Denmark, Canada, France, Italy, Japan, Sweden, European Communities (EC), Finland, Netherlands, Norway, Slovak Republic, Spain, United Kingdom, Korea, Luxembourg, AFDB Group, Global Environment Facility (GEF), United Nations, World Bank, United States, Oceania, Australia, and the World Bank

4.3.4 Horticulture

Horticulture is the branch of agriculture that deals with the art, science, technology, and business of plant cultivation. It includes the cultivation of medicinal plants, fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, seaweeds and non-food crops such as grass and ornamental trees and plants. It also includes plant conservation, landscape restoration, landscape and garden design, construction, and maintenance, and arboriculture (*study how these plants grow and respond to cultural practices and to their environment*). Belgium, European Communities (EC), Netherlands, Spain, Italy, and New Zealand gives grants to support horticultural activities in Kenya

4.3.5 Livestock Farming

Livestock farming is the rearing of animals for food and for other human uses. The word Livestock applies primarily to cattle or dairy cows, chickens, goats, pigs, horses and sheep. Donors who supported livestock farming include Canada, Finland, Ireland, Italy, Belgium, European Communities (EC), Netherlands, United Kingdom, AFDB Group and the United States

4.3.6 Natural resource Management

Natural resource management refers to the management of natural resources such as land, water, soil, plants and animals, with a particular focus on how management affects the quality of life for both present and future generations. Donors who funded Natural Resource Management were

Belgium, Finland, Canada, Italy, United Kingdom, AFDB Group, Global Environment Facility (GEF), United Nations and the World Bank

4.3.7 Policy

Agricultural policy refers to a principle of action relating to domestic agriculture and imports of foreign agricultural products. In Kenya this comprise of laws of establishing seed companies, export of horticultural products, laws governing the release of new varieties among other areas. Spain was found to be the main supporter of agricultural policy in Kenya.

4.3.8 Research & Training

The Kenya Agricultural and Livestock Research Organization (KARLO*),* Public Universities including the University of Nairobi, Jomo Kenyatta University of Agriculture and Technology, Kenyatta University, Moi University, Maseno University and Egerton University are the major research institutions that seek to find new technologies and outcomes that positively impact on Kenyan Agriculture. There are also other private institutions like seed companies, local NGO's working in the agricultural sector who conducts a lot of research to find ways of improving agriculture in Kenya. Arab Bank for Economic Development in Africa (BADEA), Australia, Canada, Greece, and Japan are the Major donors who supported research and training in Kenya.

4.3.9 Tea Farming

Tea is a major cash crop that is grown in Kenya. Kenya tea has been the leading major foreign exchange earner for the country. Belgium is the major supporter of Tea Farming in Kenya.

4.3.10 Water & Irrigation

Kenya has a total land area of 58.26 million hectares out of which only 11.65 million hectares (20%) receive medium to high rainfall while the rest is arid and semi-arid. Out of the medium to high rainfall areas, about 7 million hectares is used for agricultural production. This area can be significantly increased through irrigation (Maina, 2008). There are several donors who supported water and irrigation activities in Kenya. These included Belgium, Germany, Spain, Italy, Ireland, Japan, Kuwait, Arab Bank for Economic Development in Africa (BADEA), Global Environment Facility (GEF), PEC Fund for International Development (OFID) and the World Bank. Figure 4.4 below show the relative funding to different sectors. Agribusiness receives generous support from the donors. Projects on Policy, Tea Farming, Research and Fish farming receives relatively negligible support as compared to Agribusiness, General Food production, Livestock management and Natural resource Management. See Appendix 3 for sample raw data on aspects funded

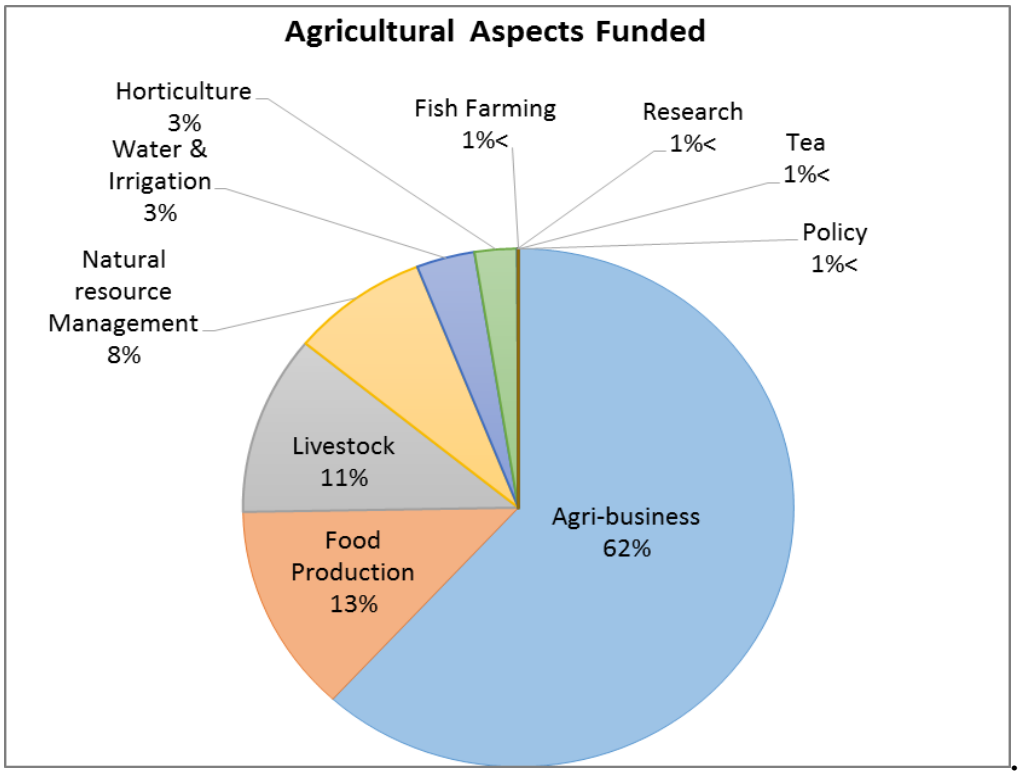

Figure 4.4: Major Agricultural Aspects Funded

4.4 Major beneficiaries to donor funding in Kenya

Figure 4.5 and 4.6 below shows the major beneficiaries to donor funds in Kenya by Province. Coast Province seemed to be the highest beneficiary of donor funds. This was followed by Rift valley, Western, Eastern, Nyanza, Central and North Eastern.

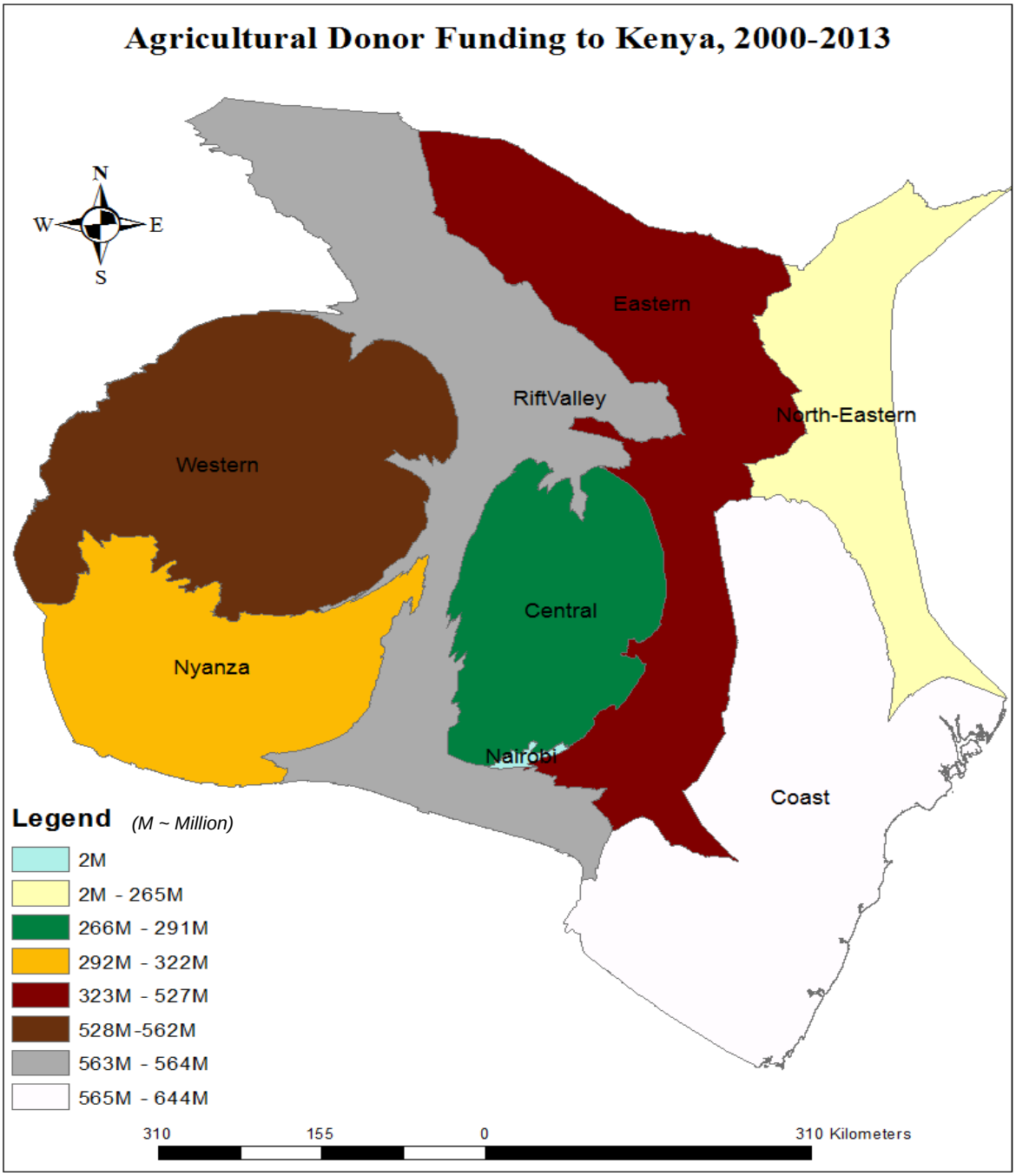

Figure 4.5: Major Beneficiaries to donor funding Cartogram

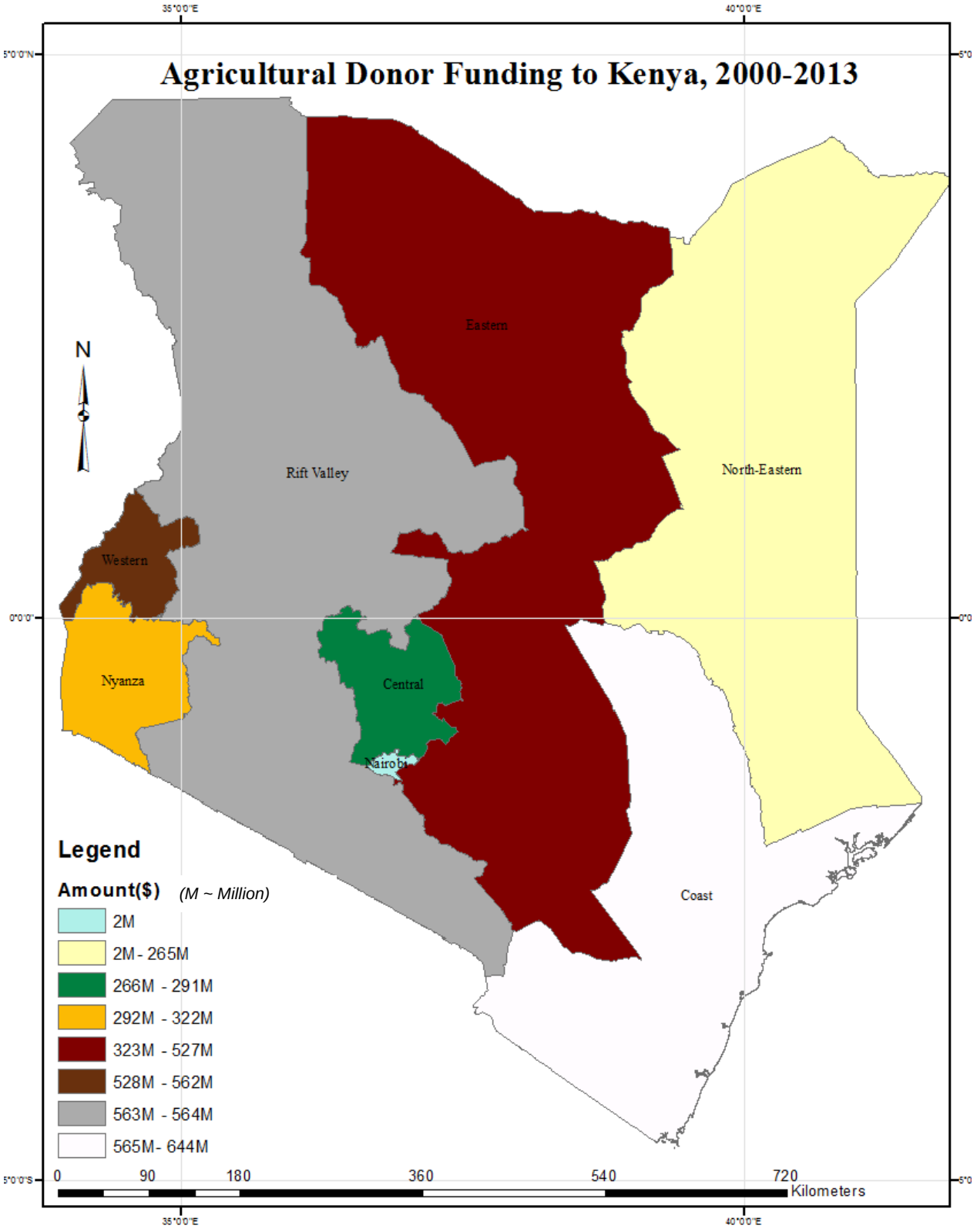

Figure 4.6: Major Beneficiaries by Amount of Funding

4.5 Areas receiving donor funding in Kenya

Mapping was done to establish the areas that receives support from donors. Areas that had high agricultural potential but lacked donors support were singled out.

1) ***Water & Irrigation***

Figure 4-7 below shows the areas that water and irrigation efforts are concentrated.

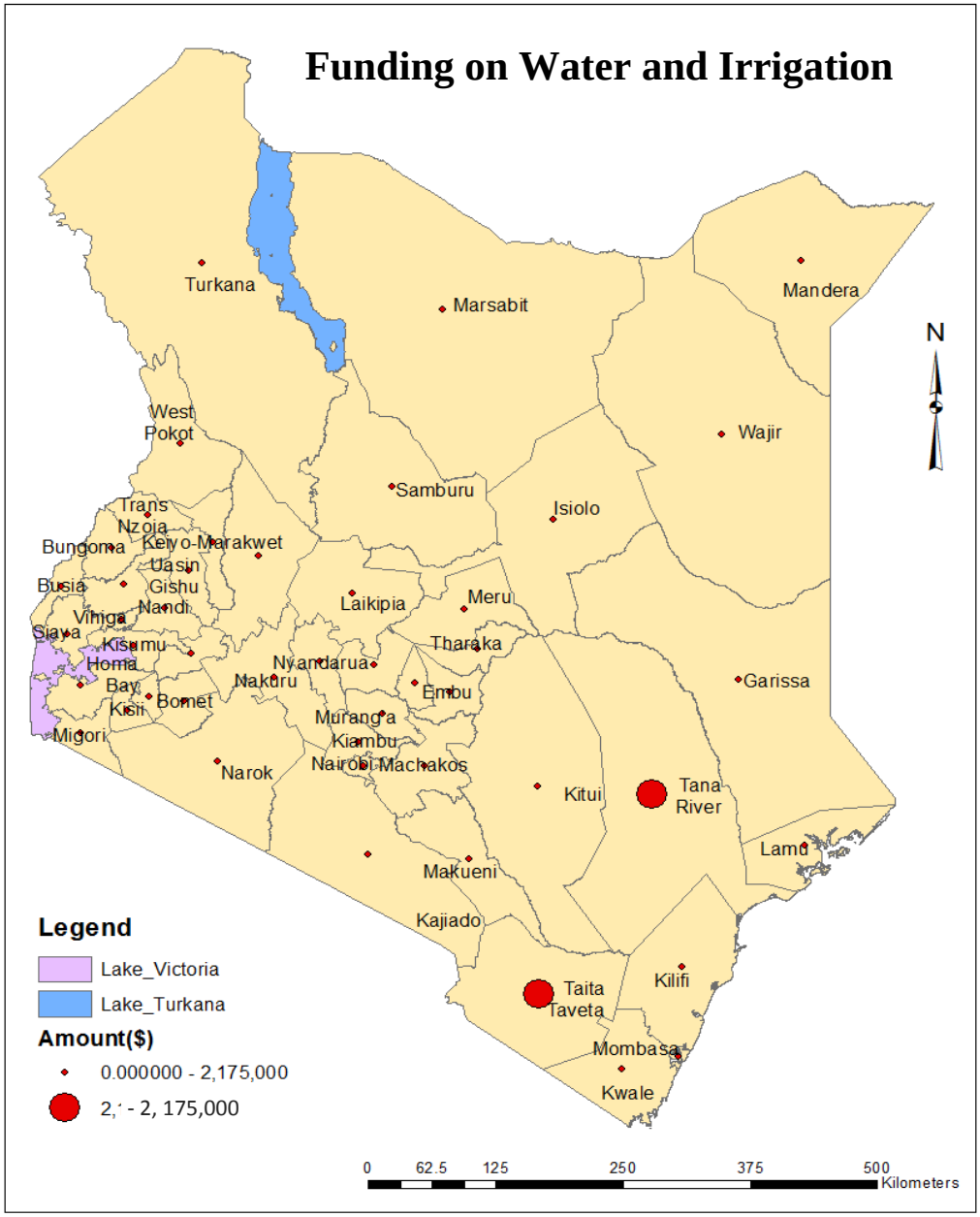

Figure 4.7: Funding on Water and Irrigation

Marsabit, Turkana and Wajir, Kitui, Narok, Makueni, Isiolo, Machakos, Garissa are some of the Arid areas that could benefit a lot from water and irrigation facilities. These areas seem to receive less donors funds.

2) Fish Farming

According to FAO, Kenya has a lot of potential for fish farming. Figure 4.8 below shows the potential fish farming areas

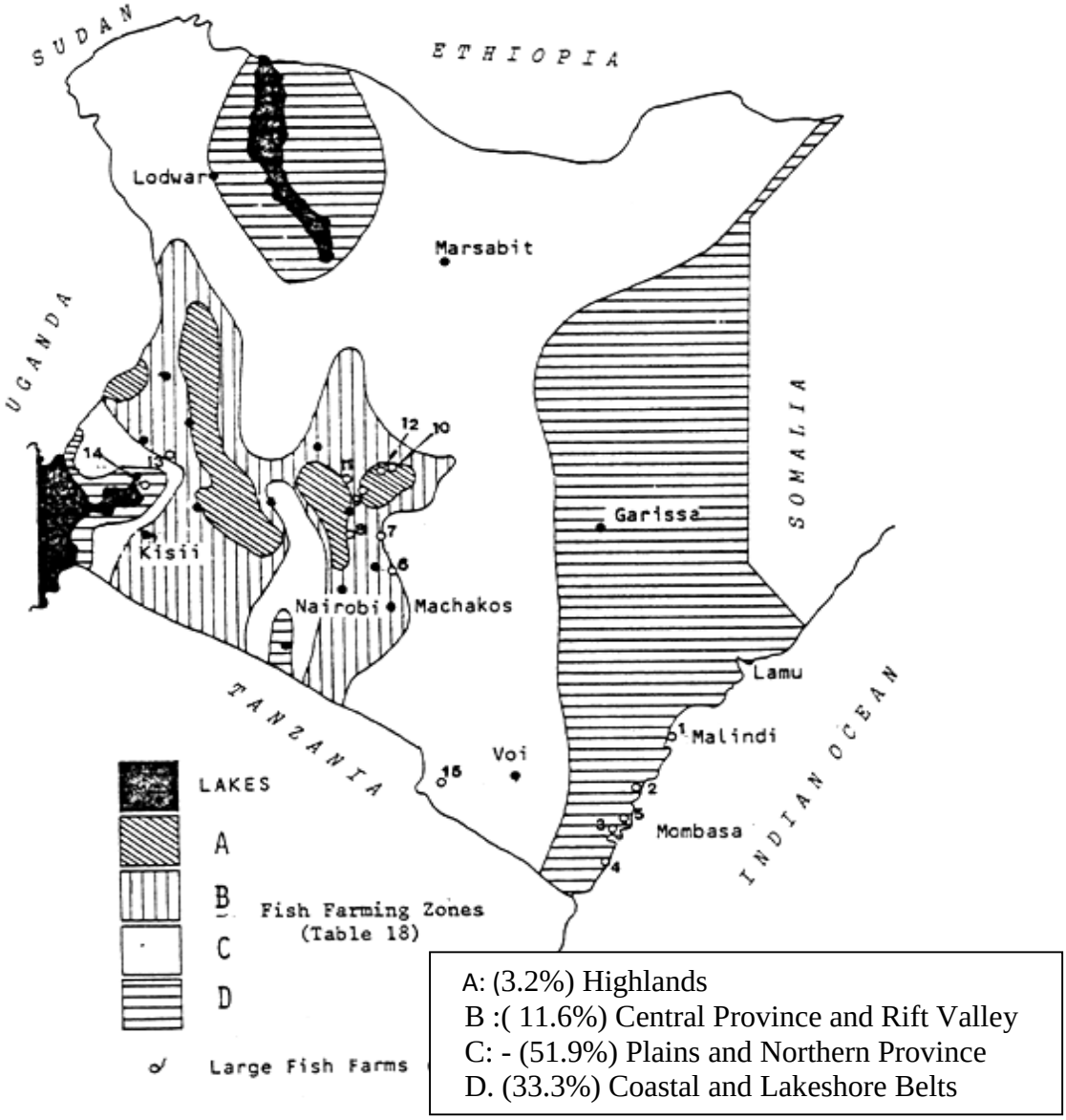

Figure 4.8: Potential fish farming areas

Source: - (FAO, 1982)

Donor efforts seemed to concentrate on the Coastal Province leaving out areas like Lake Turkana, Lake Kisumu, and Central and Rift Valley Province which do a lot of fish farming.

Figure 4.9: Funding on Fish Farming

3) Livestock Farming

The Kenya livestock Marketing Council (KLMC) is an umbrella organization of livestock producers and traders in arid and semi-arid areas of Kenya Below is a map showing its areas of operation

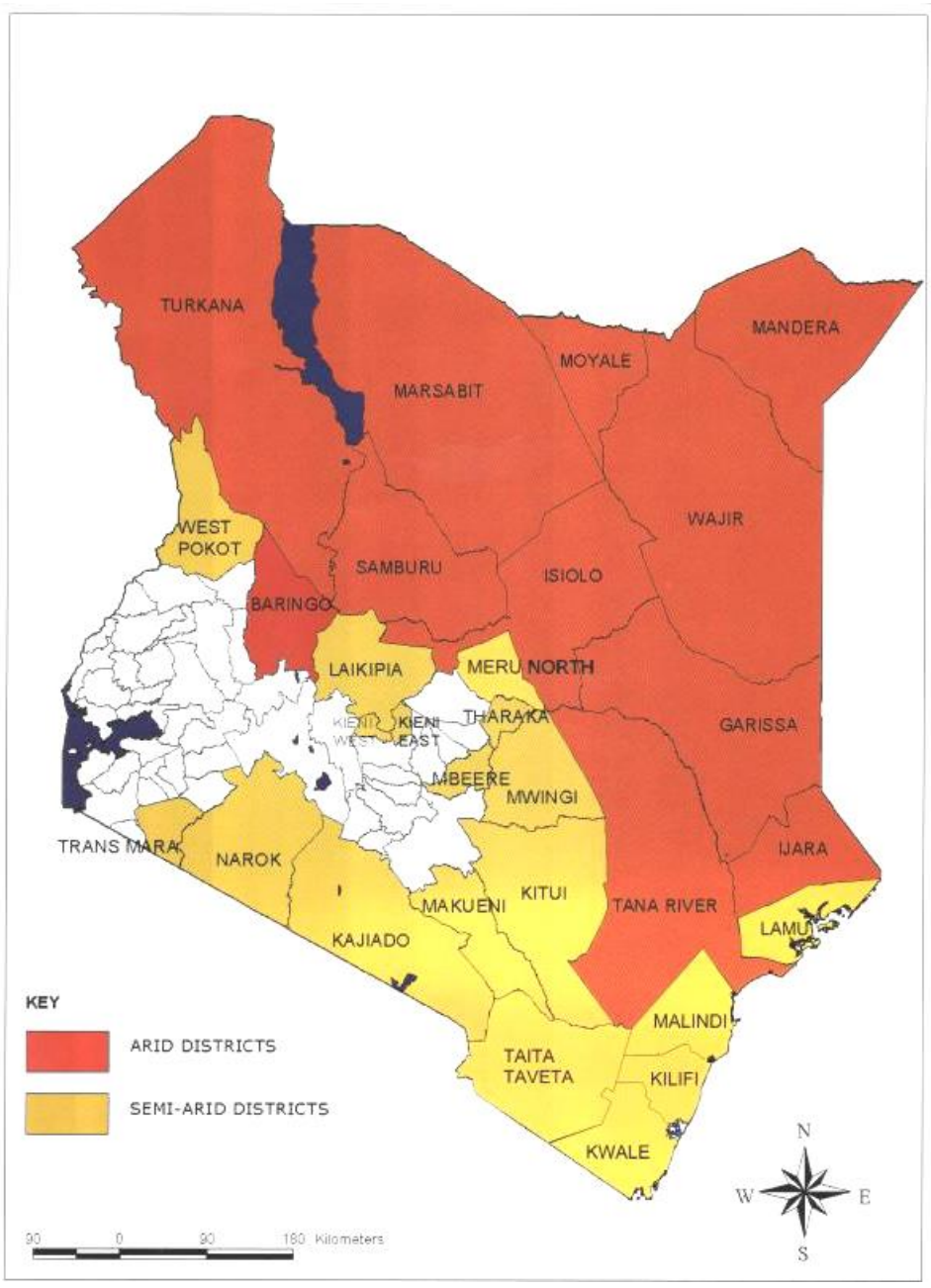

Figure 4.10: Kenya Market Livestock Areas of Operation

Source: - http://livestockcouncil.or.ke/areas-of-operation/

Donors funding livestock farming in Kenya seem to be on point. Figure 4.11 below. However, there seems to be a lapse in Isiolo and West Pokot County. These two counties have been lacking donor funding for agricultural activities

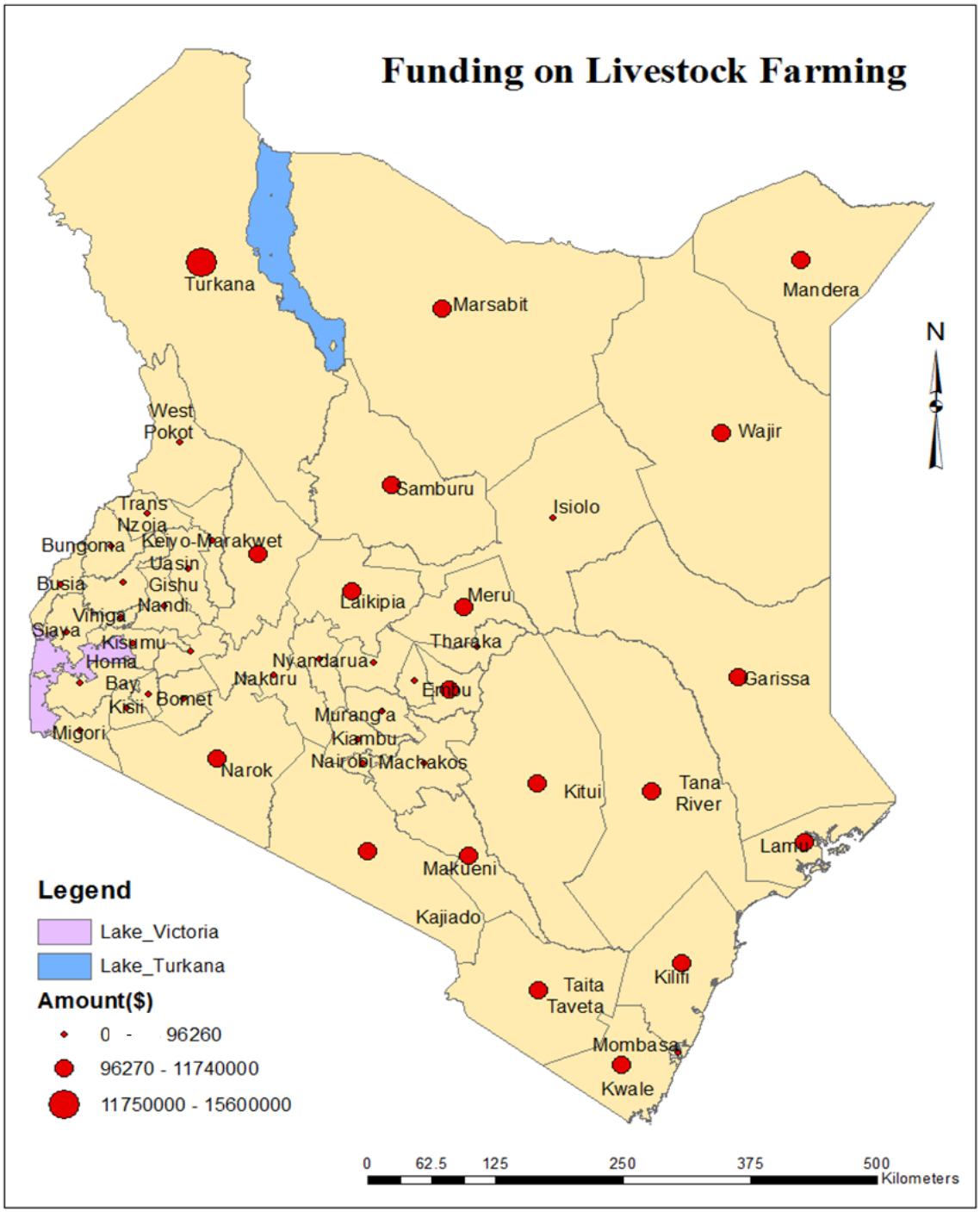

Figure 4.11: Funding on Livestock Farming

4) Research

Research effors seems to be concentrated on Nyeri, Kakamega and Vihiga, the rest of counties seems to have received less funding for research

Figure 4.12: Funding on Research

CHAPTER 5: CONCLUSIONS & RECOMMENDATION

5.1 Conclusions

Kenyan agricultural sector gets a lot of support from major donors including the multilaterals, individual governments and Private foundations with major support coming from the European community. Donors fund different aspects based on their vision, thus Kenyans can engage more donors by building a transparent system as well as collaborating among themselves.

Kenya's dry land mass is commonly divided into six agro-ecological zones including Agro-Alphine, High Potential, Medium Potential, Semi-Arid, Arid and Very arid Area (FAO, 1996). The diverse agro-ecological zones demands for different socio-economic activities. For instance the Arid & Semi-Arid areas would be more suitable for livestock than the highland Zones. The ASAL zone is thus predominantly inhabited by the pastoralists and agro-pastoralists. The water- covered zones are more suitable for fishing, while the mid-altitude and high altitude zones are good for rain fed agriculture. Most of these aspects have got funding from different donors. However, there are areas suitable for multiple agricultural activities like the coastal and western Kenya and consequently becomes the highest beneficiaries of donor funds.

Donor efforts seem to concentrate on certain parts of the country leaving out areas of great potential. This can be attributed to lack of resource on economic conditions and lack of awareness of the availability of funds meant to lift Kenyan citizens out of abject poverty. Water and Irrigation can be used to improve agricultural production all over the country. All parts of the country are suitable for Livestock and Horticulture farming.

Donors fund different agricultural aspects as discovered from the research ranging from horticulture, water and irrigation, General food production, Agri-business, Livestock farming, Tea farming, Research and Training, policy, and Natural Resource Management. Some of these areas receive multi-donor attention and thus getting more funds than others. This could be due to lack of resource base to provide donors with baseline information before committing funds. However, it is encouraging to realize that almost all major agricultural

aspects received donor attention. It is actually the role of Kenyans to identify the gaps and draw attention to the donor community.

5.1 Recommendations

The following are the recommendations for this project:-

1) Donors should be encouraged to submit information to recommended websites like *http://aiddata. org* to enhance transparency, eliminate duplication and maximize impact on their funds. The donors should also provide information on target locations and sites to be captured in the database. This would ensure that gaps are identified and correct mapping is done. Donors should be encouraged to make use of these sites before investing in Kenyan Agriculture.

2) The recommended online platforms like *http://aiddata.org* should supported to Geo-code the available information to enhance visualization and decision making. The online platforms should work with organizations like FAO, and KARI to get more information on potential areas for agriculture. This would enable investors to make decision on most favorable/productive sites for different agricultural activities. The Platforms should also classify data in terms of areas of application for easy use.

3) A similar analysis can be done for other sectors that receive donor funding in Kenya and other countries

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APPENDICES

Appendix 1: Donor funding to Kenya by development initiatives

Rank	2006		2007		2008		2009		2010	
	US$m		US$m		US$m		US$m		US$m	
1	U.S.A	304.6	U.S.A	339.8	U.S.A	450.2	U.S.A	598.1	U.S.A	567.0
2	Japan	144.3	Japan	144.7	Japan	85.9	UK	133.9	France	142.4
3	UK	114.0	UK	118.0	Germany	85.1	Japan	111.0	UK	119.1
4	Sweden	58.2	France	77.0	UK	84.9	Germany	90.0	Japan	116.5
5	Germany	51.6	Germany	65.3	France	74.1	Sweden	71.9	Germany	89.3
6	Denmark	51.4	Denmark	51.9	Sweden	63.1	France	62.9	Denmark	65.9
7	France	36.2	Sweden	45.6	Denmark	59.3	Denmark	60.5	Sweden	47.7
8	Netherlands	34.9	Spain	44.8	Spain	36.1	Spain	49.1	Canada	26.1
9	Canada	28.9	Canada	24.6	Canada	27.6	Canada	36.1	Finland	25.8
10	Korea	15.1	Netherlands	17.4	Norway	20.3	Belgium	27.8	Netherlands	20.2

Source: Development Initiatives

.

Appendix 2: Sample raw data

AidData	Project Title	Category	Province	County	Locatio	Year	Funding Regic	Fundin	Fundin	Provide	Receive	Receive	Receive	Amoun
635859	Green Zones Development Sup	Natural resource M	Central	Nyeri, Kiri	Central	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	6260000
635859	Green Zones Development Sup	Natural resource M	Eastern	Makueni,N	Eastern	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	6260000
635859	Green Zones Development Sup	Natural resource M	Rift Valley	Kericho co	Rift Valley	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	6260000
635859	Green Zones Development Sup	Natural resource M	Western	Western,B	Western	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	6260000
635912	Ewaso Ngâ€™iro North Natural	Natural resource M	Eastern	Isiolo	Ewaso Nyi	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	16480000
635912	Ewaso Ngâ€™iro North Natural	Natural resource M	Eastern	Isiolo	Ewaso Nyi	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	1330000
635912	Ewaso Ngâ€™iro North Natural	Natural resource M	Eastern	Isiolo	Ewaso Nyi	2005	Multilaterals	AFDB Group		African De	Africa, Sou	Kenya	KE	2930000
2411972	Bura Irrigation Rehabilitation	Water & Irrigation	Coast	Tana River	Tana River	2007	Multilaterals	OPEC Fund for International De			Africa, Sou	Kenya	KE	6000000
2412011	The Rehabilitation and Develop	Water & Irrigation	Coast	Tana River	Tana River	2004	Multilaterals	Arab Bank for Economic Develc			Africa, Sou	Kenya	KE	5000000
2412011	The Rehabilitation and Develop	Water & Irrigation	Coast	Tana River	Tana River	2004	Multilaterals	Arab Bank for Economic Develc			Africa, Sou	Kenya	KE	1250000
2416416	Bura Irrigation and Settlement S	Water & Irrigation	Coast	Tana River	Tana River	2007	Middle East	Kuwait	KW		Africa, Sou	Kenya	KE	6000000
2417186	Kenya - Natural Resource Mana	Natural resource M	Eastern	Machakos	Yatta Plate	2008	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Central	Kiambu	Thika	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Nyanza	Siaya	Siaya	2010	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Coast	Muranga	Murang'a	2011	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Central	Kirinyaga	Kirinyaga	2012	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Central	Nyeri, Kiri	Central	2013	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Central	Nyeri, Kiri	Central	2014	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Western	Western,B	Western	2015	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Nyanza	Siaya	Bondo	2016	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	North Easte	North East	North East	2017	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2417186	Kenya - Natural Resource Mana	Natural resource M	Central	Nyeri, Kiri	Mount Ke	2018	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	9899100
2430551	Kenya Coastal Development Pro	Food Production	Coast	Kwale	Shimoni	2005	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144127
2430552	Kenya Coastal Development Pro	Food Production	Coast	Mombasa	Shimba Hi	2006	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144128
2430553	Kenya Coastal Development Pro	Food Production	Coast	Kwale	Pemba Su	2007	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144129
2430554	Kenya Coastal Development Pro	Food Production	Nairobi	Nairobi	Pangani S	2008	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144130
2430555	Kenya Coastal Development Pro	Food Production	Coast	Mombasa	Mombasa	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144131
2430556	Kenya Coastal Development Pro	Food Production	Coast	Kilifi	Kilifi	2010	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144132
2430557	Kenya Coastal Development Pro	Food Production	Coast	Lamu	Lamu	2011	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144133
2430558	Kenya Coastal Development Pro	Food Production	Coast	Kwale	Kwale	2012	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144134
2430559	Kenya Coastal Development Pro	Food Production	Coast	Kilifi	Kilifi	2013	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144135
2430560	Kenya Coastal Development Pro	Food Production	Coast	Kwale,Kilif	Coast	2014	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144136
2430561	Kenya Coastal Development Pro	Food Production	Coast	Kwale,Kilif	Coast	2015	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144137
2430562	Kenya Coastal Development Pro	Food Production	Coast	Lamu	Lamu	2016	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144138
2430563	Kenya Coastal Development Pro	Food Production	Coast	Kilifi	Malindi	2017	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144139
2430564	Kenya Coastal Development Pro	Food Production	Coast	Taita Tavet	Taita Tave	2018	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144140
2430565	Kenya Coastal Development Pro	Food Production	Coast	Tana River	Tana River	2019	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	1144141
2430797	Kenya Agricultural Productivity	Agri-business	Nyanza	Kisii	Kisii	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Rift Valley	West Poko	West Poko	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	North Easte	Wajir	Wajir	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Rift Valley	Trans Nzoi	Trans Nzo	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Coast	Tana River	Tana River	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Coast	Taita Tavet	Taita Tave	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Nyanza	Siaya	Siaya	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Rift Valley	Nakuru	Nakuru	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Eastern	Meru	Meru	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Eastern	Makueni	Makueni	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430797	Kenya Agricultural Productivity	Agri-business	Coast	Kwale	Kwale	2009	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000000
2430798	Kenya Agricultural Productivity	Agri-business	Coast	Kilifi	Kilifi	2010	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000001
2430799	Kenya Agricultural Productivity	Agri-business	Western	Kakamega	Kakamega	2011	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000002
2430800	Kenya Agricultural Productivity	Agri-business	Eastern	Embu	Embu	2012	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000003
2430801	Kenya Agricultural Productivity	Agri-business	Western	Busia	Busia	2013	Multilaterals	World Bank		World Bar	Africa, Sou	Kenya	KE	80000004

Appendix 3: Amount of Donor funding per aspect per location

location	Agri-business	Agro-Forestry	Fish Farming	General Food Production	Horticulture	Livestock	Natural resource Management	Policy	Research	Tea	Water & Irrigation	Grand Total
Isiolo						11,257,573	128,878					11,386,451
Kajiado					3,358,091							3,358,091
Baringo	53,901,050					11,257,573						65,158,623
Bomet					2,944,444							2,944,444
Bungoma	124,560			2,918,948	2,944,444							5,987,952
Busia	80,000,000			38,224,703								32,601,301
Elgeyo-Marakwet				7,559,091	3,486,982						1,036	11,047,109
Embu	80,000,000				3,486,982	11,257,573	2,328,878				1,036	97,074,470
Garissa	80,000,000					11,257,573						91,257,573
Homa Bay	80,000,000			72,602,344								152,602,344
Isiolo							29,643,060					29,643,060
Kajiado		484,602		7,588,800	3,615,874	11,257,573					2,072	22,948,921
Kakamega	80,000,000			2,767,682	2,944,444							85,712,126
Kakamega	80,000,000						5,706,667					85,706,667
Kericho										58,287		58,287
Kiambu				15,118,182			2,200,000					17,318,182
Kilifi	83,396,597			12,797,080		11,257,573						107,451,250
Kirinyaga				732,000			2,200,000					2,932,000
Kisii					11,728							11,728
Kisii	80,000,000				2,944,444							82,944,444
Kisumu			44,172	29,709								73,882
Kitui	3,396,597			9,364,699		11,257,573	1,665,660					25,684,529
Kwale	80,000,000			3,432,381		11,257,573						94,689,954
Laikipia	17,799			20,201	268,673	11,257,573						11,564,246
Lamu				2,288,254		11,257,573						13,545,827
Machakos				6,144	3,486,982		1,665,660				1,036	5,159,822
Makueni	80,000,000	484,602		291,437	6,067	11,726,608	1,665,660				90,328	94,264,702

Mandera						11,743,052					11,743,052
Marsabit						11,257,573	2,453,099				13,710,672
Meru	80,000,000				4,727,833	11,257,573	4,400,000				96,985,406
Migori		69,409									69,409
Mombasa				2,288,254							2,288,254
Muranga					11,728		4,400,000				4,411,728
Nairobi				1,162,163	1,075,016	29,667	2,243	4,107			2,273,196
Nakuru	80,000,000		31,082,533	31,082,533	8,564,668					1,036	91,482,797
Nandi					2,944,444	509,805	5,706,667				3,454,250
Narok					3,486,982	11,257,573	60,026			4,181	14,808,762
Nyamira					2,944,444						2,944,444
Nyandarua	80,000,000			7,559,091			2,200,000				89,759,091
Nyanza											
Nyeri				268,673	268,673	22,515,146	2,200,000		400,000	119,790	24,983,819
Samburu						11,257,573					11,257,573
Siaya	80,000,000			306,695							80,306,695
Taita Taveta	83,396,597			18,359,354		11,257,573				42,403,000	155,416,524
Tana River	80,000,000		137,687	1,309,055		11,257,573	26,444,999		380,000	33,360,856	126,065,171
Tharaka Nithi						11,257,573					11,257,573
Trans Nzoia	80,124,560			15,269,448	2,944,444						98,338,452
Turkana				31,180	157,268	15,575,875				259,160	16,023,483
Uasin Gishu				31,374,851	2,944,444						34,319,296
Vihiga				217,554							217,554
Wajir	80,000,000					11,257,573					91,257,573
West Pokot	80,000,000			7,667,672		11,257,573					98,925,245
Grand Total	**1,530,207,589**	**1,038,613**	**226,031**	**321,553,059**	**61,797,150**	**277,534,166**	**199,135,085**	**4,107**	**1,251,643**	**58,287**	**84,943,530**	**2,531,899,429**

Appendix 4: Sample Size

Donor	**Sample Size**
AFDB Group	2%
Arab Bank for Economic Development in Africa (BADEA)	1%
Australia	1%
Austria	1%
Belgium	6%
BMGF	3%
Canada	9%
Denmark	1%
European Communities (EC)	3%
Finland	4%
France	2%
Germany	10%
Global Environment Facility (GEF)	1%
Greece	1%
Ireland	6%
Italy	4%
Japan	6%
Korea	3%
Kuwait	1%
Luxembourg	1%
Netherlands	2%
New Zealand	1%
Norway	1%
OPEC Fund for International Development (OFID)	1%
Slovak Republic	1%
Spain	2%
Sweden	1%
Switzerland	1%
United Arab Emirates	1%
United Kingdom	3%
United Nations	2%
United States	5%
World Bank	14%