REPUBLIC OF KENYA

MINISTRY OF
AGRICULTURE AND
LIVESTOCK DEVELOPMENT

KUUNGANA KUFANYA KUSAIDIA KENYA

PLAN INTERNATIONAL

Until we are all equal

4-K CLUB

TOT TRAINING MANUAL

REVISED EDITION JUNE 2024

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FOREWORD

The Agricultural sector is the backbone of the country's economy and a means of livelihood for 80% of the population of which about 74% are youth aged below 35 years. Sustained agricultural growth is therefore crucial for employment creation and economic growth. The rebranded and revitalized 4-K Clubs in Kenyan primary schools provides an avenue for children of school-age to be introduced to agriculture early in life to develop the desired positive attitude towards the sector as a source of livelihood. The country has a network of approximately 31,218 public and private primary schools that provides an important platform through which food and nutrition security can be boosted by reviving agricultural practice through the 4-K Clubs. The implementation of the 4-K Clubs has provided an opportunity to instill good citizenship values in pupils and promoting patriotism in their communities and the Nation.

The Youth in Agriculture Unit of the MoALD is charged with the development of 4-K Clubs in the country. This Training Manual provides guidelines on the establishment and management of the clubs in schools. The Manual elaborates the Positive Youth Development (PYD) approach that fosters holistic youth development and captures the thematic areas under which the rebranded 4-K Clubs should be run namely: Agricultural Projects; Agri-nutrition; Environmental Conservation; Science, Technology, Engineering and Mathematics (STEM); and Civic Engagement and Citizenship. The Presidential Award Scheme is elaborated to encourage the children to undertake projects and activities at the 4-K Clubs.

This revised edition provides an in-depth guide to the Patrons/Matrons on delivering on the thematic areas as outlined in the Manual. It is intended to provide competences for effective establishment and management of the 4-K Clubs across the country. Successful use of this ToT Manual should spur creativity and innovativeness to assist 4-K Clubs Members carry out club

activities in a fun environment. By so doing, the children will be attracted and retained in the agricultural sector beyond the schools and subsequently fulfil the objective of the 4-K Clubs.

This training of Trainers (ToT) Manual is a Revised Edition that has been made possible through the support of Plan International. MoALD works closely with organizations and agencies that support the Government of Kenya's development agenda. The Ministry recognizes and welcomes the work of Plan International with the youth in the country and is grateful for their support in the production of this revised edition.

Douglas Kangi
Agriculture Secretary
Ministry of Agriculture and Livestock Development

ACKNOWLEDGEMENT

The first edition of this manual was compiled through the concerted efforts of the Ministry to see that 4-K Clubs were revived in primary schools in Kenya. The State Department for Agriculture spearheaded the production of the 4-K Clubs ToT Manual. The continued support and intuition of the top management of the Ministry is appreciated.

The contributions by staff from various Departments, Ministries and Institutions is appreciated. The comprehensive content from the personnel made it possible to cover the 4-K Clubs thematic areas satisfactorily. In this regard, appreciation is also extended to the Heads of the respective Departments, Ministries and Institutions for allowing their staff to participate and make contributions towards the compilation of this manual.

This revised edition has been made possible through the support of Plan International through the Conservation and Sustainable Management of Coastal and Marine Ecosystems (COSME) Project funded by Global Affairs Canada (GAC) whose work with 4-K Clubs in Kenya is highly appreciated. We especially thank Beryl Oduor, Jenard Mwangangi, Patrick Munyao, Lilian Wandaka. Philip Tetteh, Noelle Rancourt and Cheryl Yeam for their valuable contribution towards the improvement of the manual. Their dedication and commitment to integrating key themes including Climate Change; Community Mapping; Gender Equality and Inclusion; and Safeguarding has been instrumental in shaping the final content of this manual.

Charles Lusweti

Programme Coordinator

Youth in Agriculture Unit/4-K Clubs Programme
Ministry of Agriculture and Livestock Development

TABLE OF CONTENTS

FOREWORD i
ACKNOWLEDGEMENT iii
LIST OF ACRONYMS vii
ABOUT THIS TOT MANUAL ix
CHAPTER 1: INTRODUCTION 1
1.1 Background 1
1.2 Features of the Rebranded 4-K Clubs 3
CHAPTER 2: ESTABLISHMENT AND MANAGEMENT OF 4-K CLUBS 7
2.1 Organizational Structure for 4-K Clubs in the Country 7
2.2 Safeguarding and Child Protection Policies 8
2.3 Steps for Establishing 4-K Clubs 11
2.4 Management of 4-K Clubs 16
2.5 Guiding Principles of Centers of Excellence 21
2.6 TOT Training Guidelines 25
CHAPTER 3: POSITIVE YOUTH DEVELOPMENT 29
3.1 Background 29
3.2 Definition of Key Terms 30
3.3 Elements of Positive Youth Development 31
3.4 Gender Equality 34
CHAPTER 4: PROJECT THEMATIC AREAS 36
4.1 Agriculture Thematic Area 39
4.1.1 Background Information 39
4.1.2. Definition of Key Terms 40
4.1.3 Objectives 41

4.1.4 Agricultural Projects for 4-K Club Members 41

4.2 Agri-Nutrition Thematic Area 43

4.2.1 Introduction 43

4.2.2 Definition of Key Terms 44

4.2.3 Objectives 45

4.2.4 Linking Agriculture to Nutrition 45

4.2.5 Learning About Food 46

4.2.6 Agri-Nutrition Projects 51

4.3 Environmental Conservation Thematic Area 56

4.3.1 Introduction 56

4.3.2 Understanding the environment through community mapping 57

4.3.3 Environmental Degradation and Conservation 58

4.3.4 Climate Change 60

4.3.5 Environment Projects for 4-K Clubs 68

4.4 Stem Education Thematic Area 70

4.4.1 Introduction 70

4.4.2 Objectives 73

4.4.3 STEM Projects for 4-K Clubs 73

4.5 Civic Engagement and Citizenship Thematic Area 74

4.5.1 Introduction 74

4.5.2 Objectives 75

4.5.3 Definition of Key Terms 75

4.5.4 Civic Engagement and Citizenship Projects for 4-K Clubs 78

CHAPTER 5: AGRIBUSINESS 83

5.1 Introduction 83

5.2 Marketing Strategies and Sustainability 84

CHAPTER 6: MONITORING AND EVALUATION..... 86

ANNEXES: 89

Annex 1: Guidelines for Training 4-K Club Members on Gender Equality 89

Annex 2: Resources for Community Mapping..... 92

Annex 3: An Example of a Climate Change Mitigation and Adaptation Project 97

Annex 4: The 4-K Clubs Organizational Structure 102

Annex 5: The 4-K Clubs Presidential Award Scheme..... 105

Annex 6 : Step-By-Step Registration Process for the 4-K Clubs 108

Annex 7: 4-K Clubs Ceremony Attire 113

REFERENCES 115

LIST OF ACRONYMS

ASK	Agricultural Society of Kenya
ASTGS	Agricultural Sector Transformation and Growth Strategy
CBC	Competence Based Curriculum
COSME	Conservation and Sustainable Management of Coastal and Marine Ecosystems
CSR	Corporate Social Responsibility
CVD	Cardiovascular Diseases
GDP	Gross Domestic Product
GAC	Global Affairs Canada
GPS	Global Positioning System
ICT	Information Communication Technology
IEC	Information Education Communication
IGA	Income Generating Activities
KALRO	Kenya Agricultural and Livestock Research Organization
KDHS	Kenya Demographic and Health Survey
KEFRI	Kenya Forestry Research Institute
KFS	Kenya Forestry Service
KMD	Kenya Meteorological Department
KRCS	Kenya Red Cross Society
M&E	Monitoring and Evaluation
MOALD	Ministry of Agriculture, and Livestock Development
MoE	Ministry of Education

NCDs	Noncommunicable Diseases
NCIC	National Cohesion and Integration Commission
PAS	Presidential Award Scheme
PEM	Protein Energy Malnutrition
PYD	Positive Youth Development
TOT	Trainers of Trainers
USA	United States of America
Y-MAP	Youth In Modern Agriculture Project
VSO	Voluntary Service Overseas

ABOUT THIS TOT MANUAL

This TOT Manual is developed for purposes of training 4-K Club Patrons/Matrons and school management on ways of establishing, managing and sustaining vibrant and effective 4-K Clubs in the schools. It explains the structures of 4-K Clubs at various levels and outlines important aspects of the rebranded 4-K Club Programme such as the Positive Youth Development Model and the Presidential Award Scheme Competition.

The manual guides the Patrons/Matrons on Registration of 4-K Clubs and their members. It also outlines how 4-K Clubs activities and projects in all the 4-K Clubs Programme thematic areas can be initiated and implemented. Patrons/Matrons are presented with practical ideas for projects that club members can be involved in. The suggestions of project activities presented in this TOT Manual can be done by the club as group or individual projects. The suggested project activities in this manual should not in any way limit what projects and activities 4-K Clubs should undertake. Nevertheless, the projects and activities suggested in this manual will inspire Patrons/Matrons and club members towards developing creative and sustainable projects and activities based on their unique social environments.

This revised edition has been made possible through the support and input of Plan International through the COSME Project funded by Global Affairs Canada (GAC).

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

The 4-K Club Programme in Kenya was founded in 1962 after a local leaders' visit to the USA where they were exposed to various agricultural programmes including the 4-H (Head, Heart, Hands and Health). The 4-H concept is the largest youth empowering and development programme in USA with a rich history and an expansive network in urban neighbourhoods, suburban schoolyards and rural farming communities. The 4-H members stand out among their peers in building revolutionary opportunities and implementing community-wide change at an early age. The Kenyan leaders decided to adopt the 4-H concept and principles which were customized to the 4-K Club for ownership and identity. Figure 1 shows the timeline of 4-K Clubs from the 1960s to 2021 when they were rebranded.

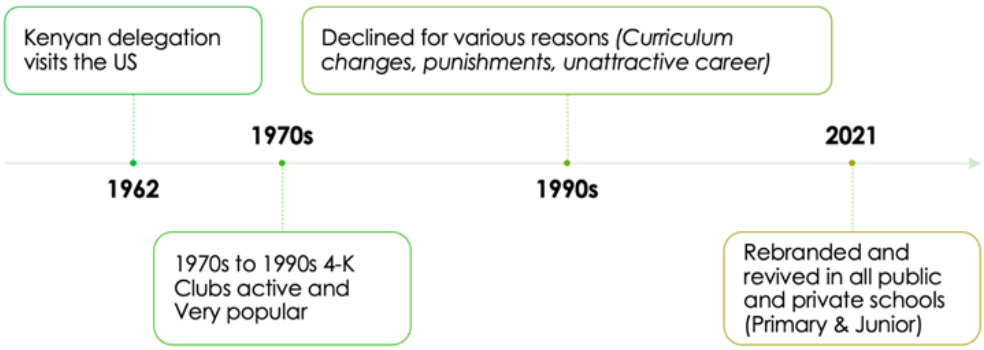


Figure 1: Timeline of 4-K Clubs

During the 1970's up to the 1980's, the 4-K Club initiative registered a lot of success. Children were taught how to grow crops and raise some small livestock. Members of the clubs were then able to learn and transfer new farming technologies to their communities. Popular farming activities

included keeping rabbits, chickens, goats and growing horticultural crops. In the early 1990's however, the 4-K Clubs initiative started to decline and by 2019, there were only 2,300 4-K Clubs in the country with total pupil membership of 69,000.

The decline in 4-K Club membership combined with low enrolment of youth in agricultural courses as a career among the youth posed a threat to the sector's sustainability for enhanced economic and social development. The major contributing factor for the continued decline in the uptake of agriculture among the youth is the negative attitude towards the sector. Agriculture has been turned to a career of last resort among the youth. It is therefore important to instill the practice of agriculture from an early age through the revival of the 4-K Clubs in primary schools. The 4-K Clubs provide an opportunity to impart good citizenry values that promote patriotism of the pupils to their communities and the nation at large.

The guiding principle of the 4-K Clubs Programme is to empower the youth with Agricultural and life skills which will contribute towards better nutrition, health and higher standards of living. In the wake of the Competence Based Curriculum (CBC), it is envisaged that the 4-K Clubs will result in holistic Positive Youth Development (PYD) at home, school and the community by building on the strength of the youth as active agents for community development.

The 4-K Clubs were rebranded in 2022 with new features integrated to reposition the brand, attract new audiences, enhance visibility and promote ownership of the programme among all stakeholders to ensure sustainability of the programme at all levels (Figure 2). Currently, the registered number of 4-K Clubs stands at 1,750 with approximately 150,000 members. Registration of 4-K Clubs is a continuous process and the number of registered clubs is bound to change from time to time.

Objective of 4-K Clubs

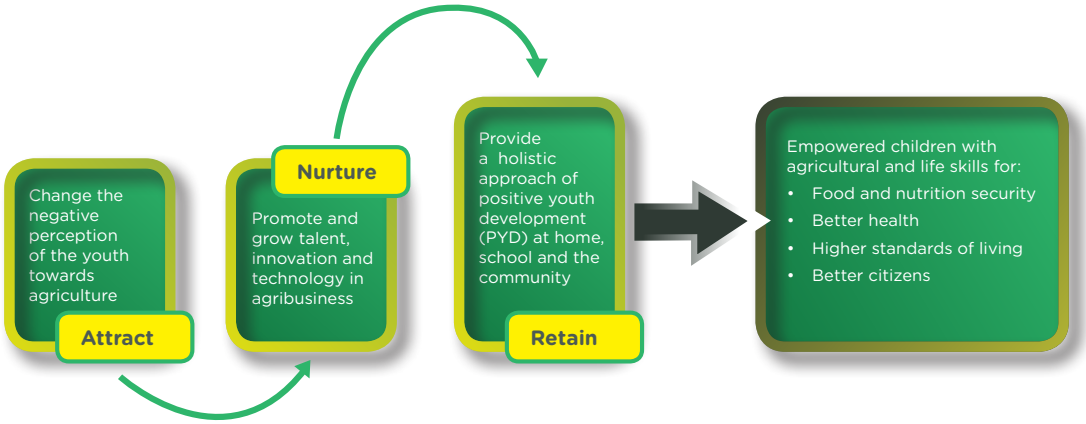


Figure 2: Objective of 4-K Clubs

1.2 FEATURES OF THE REBRANDED 4-K CLUBS

a) New Emblem

The 4-K Club emblem is redesigned to inspire pride and create a sense of belonging among all the stakeholders (Figure 3).

Old emblem **New emblem**

Figure 3: The 4-K Club Emblem

4K:	Kuungana, Kufanya, Kusaidia, Kenya
Clover leaf:	Identifies the logo with 4-K Clubs
Shield:	Symbolizes the Republic of Kenya, the core focus in the mandate of the club
4-K Motto:	To Learn by doing "Kujifunza kwa Kufanya"
4-K Pledge:	Ninaahidi Kuungana, Kufanya na Kusaidia Kenya

b) Positive Youth Development

The Positive Youth Development (PYD) model is used to train the club members, the Patrons/Matrons and other stakeholders. PYD is gender responsive and builds on Learner's 5 C's which are Competence, Confidence, Connection, Contribution and Character.

c) Project Thematic Areas

The rebranded 4-K Clubs Programme has the following key Project thematic areas:

i. Agricultural Projects

This thematic area encompasses production and management of crop, livestock, and aquaculture enterprises for food and nutrition security. These enterprises can be undertaken by 4-K Clubs and individual club members. The choice of the project depends on available resources, skills, prevailing weather patterns and individual interests.

ii. Agri-Nutrition

The emphasis of this thematic area in the 4-K Clubs is to enhance healthy living and the production of nutritive foods in safe environments. 4-K Club members are involved in projects and activities that enhance their understanding of healthy eating.

iii. Environmental Conservation

This is an important component while implementing 4-K Club projects. Within this thematic area, the 4-K Club members and stakeholders are called upon to protect the environment and preserve natural resources. Implementation of activities that are responsive to climate change is critical for sustainable development.

iv. Science, Technology, Engineering and Mathematics (STEM)

The 4-K Clubs provide an opportunity for members to explore Science, Technology, Engineering, and Mathematics (STEM) in a fun and practical context. STEM projects challenge students to make the critical connection between everyday problems and solutions that can be provided through research, science and innovation.

v. Civic Engagement and Citizenship

The 4-K Clubs civic engagement and citizenship thematic area is focused on developing young people as responsible citizens with a mandate to contribute positively to nation building and in providing solutions to the world's challenges such as climate change, corruption, ethnic divisions, poverty, inequality, food insecurity and terrorism. Civic Engagement and Citizenship seeks to equip 4-K Club members with the necessary skills and attitudes to make positive contributions to their communities.

d) Agribusiness

Agribusiness comprises all activities involved in the supply of farm inputs including all operations which are related to

procurement, collecting, grading, storing, agro-processing, transportation, financing and selling agricultural produce. The 4-K Clubs Programme seeks to ensure the transformation of mindset and perceptions among the young people towards agribusiness whose main goal is to maximize profit while sustainably satisfying the needs of consumers.

CHAPTER 2: ESTABLISHMENT AND MANAGEMENT OF 4-K CLUBS

Schools that are ready to establish 4-K Clubs are encouraged to designate Patrons/Matrons who will guide learners in forming the clubs. The Patrons/Matrons may obtain guidance on running 4-K Clubs from the programme manuals, website as well as programme Trainer of Trainers (ToTs) who will have undertaken 4-K Club training.

The established 4-K Clubs should initiate projects and associated club activities. After the club is formed the Patron/Matron should register the 4-K Club through the provided registration options. Registration ensures that 4-K Clubs Programme will actively support implementation of 4-K Clubs in schools.

2.1 ORGANIZATIONAL STRUCTURE FOR 4-K CLUBS IN THE COUNTRY

The 4-K Clubs initiative is a nation-wide activity coordinated by the National Government through the Ministry of Agriculture and Livestock Development in collaboration with the Ministry of Education.

The organizational structure, the roles of various actors and the Presidential Award Scheme (PAS) are provided in Annex 4 and Annex 5 respectively.

2.2 SAFEGUARDING AND CHILD PROTECTION POLICIES

Kenya has laws that seek to protect children in every situation. Teachers are bound to uphold the rights of children and it is important to note that there is no exemption in the application of the law and that non-compliance is an offence.

Before the establishment of 4-K Clubs, Patrons/Matrons should familiarize themselves with the following Policies and Laws that govern the safety and protection of children in Kenya.

i. The Constitution of Kenya 2010

Article 29 states that every person has the right to freedom and security including the right not to be subjected to any forms of violence, torture in any manner whether physical or psychological, corporal punishment, treated or punished in a cruel, inhuman or degraded manner.

Article 53 (1) states that every child has the right, in terms of children rights and protection to; name, nationality, free and compulsory basic education, basic nutrition, shelter and health care, be protected from abuse, neglect, harmful cultural practices, all forms of violence, inhuman treatment and punishment, and hazardous or exploitative labour.

ii. The Children Act 2001 (CAP. 586, Laws of Kenya)

Section 18 (1) No child shall be subjected to torture, of cruel treatment or punishment, unlawful arrest or deprivation of liberty. (2) Notwithstanding the provisions of any other law, no child shall be subjected to capital punishment or to life imprisonment.

iii. The National Children Policy Kenya 2010 (National Council for Children Services)

Provides a framework for addressing issues related to children's rights and welfare in a holistic and focused manner; acting as a regulatory framework to coordinate the many related policies and legislations; provide direction geared towards the promotion of children's rights, while mobilizing resources for action.

iv. Sexual Offenses Act 2006

The Act defines and criminalizes all sexual engagements with children section 24(4) is very specific on teachers stating any person who being the head-teacher, teacher or employee in a primary or secondary school or special institution of learning whether formal or informal, takes advantage of his or her official position and induces or seduces a pupil or student to have sexual intercourse with him or her, or commits any other offence under this Act, such sexual intercourse not amounting to the offence of rape or defilement, shall be guilty of an offence of abuse of position of authority and shall be liable upon conviction to imprisonment for a term of not less than 10 years.

v. Basic Education Act 2013

Section 4(P) provides for values and principles that shall guide basic education, which include protection of children against all forms of discrimination and abuse.

Section. 34 provides that a child shall not be denied admission as a form of discipline. Section.35 (1) Pupils shall be given appropriate incentives to learn and complete basic education.

vi. Teachers Service Commission (TSC) Act 2012

It states that the Teachers Service Commission shall take all necessary steps to ensure that persons in the teaching service comply with the teaching standards prescribed by the Commission under this Act.

Under section 30 (c) and (d) the commission shall deregister a teacher who has been convicted of sexual offence or an offence against a pupil, and who has been convicted of a criminal offence which, in the opinion of the commission, renders the person unfit to be a teacher.

33(1) The Commission may, subject to the regulations made under this Act, take disciplinary action against any person registered as a teacher under this Act. Reinstatement of name in the register and publication of that register. (2) Subject to subsection (1), the discipline of teachers not in the employment of the Commission shall be limited to offences leading to removal from the register of teachers.

vii. Teachers Service Commission (TSC) Code of Conduct and Ethics

The Code is intended to establish standards of ethical conduct and behavior for teachers so as to maintain the integrity, dignity and nobility of the teaching profession. The Code stipulates standards of behavior and ethics to be observed by teachers at all times.

Teachers have a Duty to Protect Children 9(1) A teacher shall be entrusted with the duty of care of a child, including a child with special needs and shall ensure the child is protected from abuse, neglect, harmful cultural practices, all forms of violence, discrimination, inhuman treatment, corporal punishment and exposure to hazardous or exploitative labour.

viii. Teachers Service Commission (TSC)/ Circular No 3/2010

Pursuant to the enactment of the Sexual Offences Act (2006), and in accordance with the professional ethics espoused in the TSC Code of Regulations, the Commission issued a TSC/Circular No.3/2010 on protecting a child, whereby if any of what is in it is committed then the teacher is automatically dismissed and deregistered.

ix. Legal Notice No. 56 of 2001

Government of Kenya banned corporal punishment of children in schools on 13th March, 2001 through legal notice number 56.

x. Child Participation Guidelines

The Child Participation Guidelines, 2006, spell out ways of involving children in decision making on matters that affect their lives and to express their views in accordance with their involving capabilities.

2.3 STEPS FOR ESTABLISHING 4-K CLUBS

Step 1: Win the confidence of the people

Patrons/Matrons who are interested in starting a 4-K Club should have the confidence of the community for the programme to succeed. This will ensure that the community will cooperate with and support the programme for sustainability. Programmes that address youth challenges by keeping the youth busy, address their idleness and give them tangible benefits will easily be accepted by the farming community.

Step 2: Involve formal and informal leaders, as well as key stakeholders

Securing the approval and active support from leaders and key stakeholders at the local level is also an important step in starting a 4-K Club. They must be familiar with the 4-K Club programme from the beginning. At this level, the leaders and stakeholders will be sensitized on the following areas:

i. The meaning of 4-Ks

ii. The objectives of the 4-K Club programme

iii. How the 4-K Club operates

iv. The home projects of the 4-K Club members

v. The role of formal leaders, informal leaders as well as the key stakeholders in the Programme

Step 3: Talk to the Parents

This is one of the most important steps. The parents should be informed about the 4-K Club through the school forums. The parents should understand that each 4-K Club member "learns by doing" through his/her own projects at home. Members run their own clubs with the assistance of the local communities. Each 4-K Club member finances his/her own project and benefits from the returns. The role of the parents is to ensure sustainability of the projects even after the child has left school. The MoALD supports the programme, but the clubs belong to the members and parents.

Step 4: Recruit 4-K Club Members

The 4-K Club Patron/Matron should inform the school head of their intention to start a 4-K Club and the recruitment of club members.

A meeting date, time and venue should be agreed on and pupils/members informed accordingly. The topics to be discussed should include the following:

i. Purpose and objectives of 4-K Clubs, explain 4-K Club Motto and Emblem of the 4-K Club

ii. Determine number of learners interested in joining the 4-K Club

iii. Ask/request them to secure their parents'/guardians' approval to enroll

iv. Make plans for the next meeting

Step 5: Organize the New 4-K Club

In the first meeting, the following people may be invited to attend;

i. Extension providers

ii. Volunteers

iii. Community leaders

iv. Progressive farmers

v. Agri-preneurs

vi. Interested pupils

During the meeting of the 4-K Club the following should be accomplished:

Elect Officials

4-K Club officials will comprise of the following who should be appointed from among the learners:

i. Chairperson

ii. Vice chairperson

iii. Treasurer

iv. Secretary

v. Sub Committee members (if any)

Both genders should be fairly represented in both membership and leadership of the club. Within the leadership structure where the chairperson is male, the vice chairperson should be female, and vice-versa. The same applies to the other positions. In addition, 4-K Clubs may have local leaders. The Patron/ Matron should also consider gender distribution of local leaders.

Name the Club

The 4-K Club members with the guidance of the Patron/Matron could suggest a name of the club. The name of the school may also be the name of the club.

Select Enterprises

Extension providers should give guidance in selection of suitable agricultural projects. The Patrons/Matrons in consultation with the extension officers should select suitable agricultural projects in their respective regions.

Register the 4-K Club and the Members

Patrons/Matrons should register their 4-K Clubs by filling the application form available on the website under the Register tab i.e. **www.4-kclub.go.ke.** Upon successful registration of 4-K Club, a certificate of registration is issued. See Annex 6 for a detailed step- by-step registration process of a 4-K Club and members.

Step 6: Plan meetings

Plan for the next meeting. Set the date, time, venue and agenda.

Step 7: Support Sustainability through Parents

The programme activities require parental support for sustainability. Extension service providers, stakeholders and the leaders can complement this through:

i. Briefing the parents on the 4-K Club progress at any opportune time e.g., parents' days and barazas

ii. Arranging for an educational tour of members home projects

iii. Helping the members to entertain parents

iv. Through role plays & skits during parents' meetings in the school

v. Publicly appreciating the parents' support

If the above steps have been followed, an effective new 4-K Club should be in operation. The extension service provider together with Patrons/Matrons should visit the members' projects regularly and make every project an excellent example of improved agricultural practices.

2.4 MANAGEMENT OF 4-K CLUBS

a. Membership Identification

4-K CLUB MEMBERSHIP CARD

This is to certify that

_____

is a member of

_____

4-K Club

Member No. _____

_____

Patron/Matron

_____

4-K Clubs PC

Issued by 4-K Clubs Programme

Ministry of Agriculture and Livestock Development

Figure 4: A sample 4-K Club Membership Card

Every registered 4-K Club member should have a 4-K Club ID, referred to as the Membership Card (Figure 4). The Patrons/ Matrons should have a different type of Identification. The Patrons/Matrons and Members should have the official 4-K Clubs regalia to be worn during special events and functions.

b. 4-K Clubs By-Laws

The 4-K clubs will be guided by a constitution drafted by the members. These are a set of laws that will guide the operations of the club towards the achievement of the club objectives.

The Patron/Matron should guide members on how to craft the By-Laws.

c. Duties of 4-K Club Officials

Chairperson

i. Presides over meetings and keeps order

ii. Acts as advisor to other officials; works with them and sees that all planned activities are carried out

iii. Acts as official representative of the club at all events

iv. Guides club members in appointing committees

v. Appreciates all persons and organizations that have supported the club, on behalf of the members

vi. Introduces speakers and special guests or appoints another member to do so

vii. Cast vote in case of a tie in any decision

viii. Regulates the time taken for the whole meeting to about one hour

ix. Works in collaboration with local leaders

Vice Chairperson

i. Conducts meetings in the absence of the chair

ii. Serves as general chairperson of the programme committee

iii. Takes responsibility in working with the leader and club Chair in seeing that the annual plan is prepared and that each member has a copy in their record book

iv. Checks ahead of the meeting to ensure that the members and facilitators are prepared

Secretary

i. Takes roll call and keeps an accurate record of attendance

ii. Keeps minutes of all meetings in 4-K Club Secretary's book by entering the date of the meeting, type of project, name of facilitator and the type of recreation in the blank spaces of the minutes form

iii. Notifies members of meeting dates and time

iv. Keeps a record of all members participating in ward, sub-county, county and national events

v. Writes thank you notes and letters of appreciation

Treasurer

Keeps the records of all the following financial transactions on behalf of the club:

i. Cash from sale of produce

ii. Donations to the club

iii. Money collected from members

iv. Expenditures

v. Cash prizes won during shows etc

d. Meetings

Annual Meeting Plan

Each 4-K Club will have an annual meeting plan that captures the Date, Business, Program, Facilitator and Recreation for every month.

4-K Club Meeting

A 4-K Club meeting has three sections:

- The Business (agenda) part where the work of the club is done
- The Project which is the core part of the meeting
- Recreation

The business (agenda) part of the meeting remains the same in each meeting, but the projects and recreation activities vary. Each section should take about 20 minutes.

Meeting Procedure

Business (Agenda)

i. Call to order by the Chairperson

ii. Opening prayer

iii. Roll call by the Secretary

iv. 4-K Club Pledge

v. Reading of minutes of previous meeting by Secretary

vi. Reports from subcommittees (4-K Clubs may have a subcommittee for projects, shows, programmes and recreation)

vii. Unfinished agenda e.g., the date for a tour, information about a 4-K Club show

viii. New agenda / Emerging issues

Club Project (s)

A 4-K Club project has several activities which may include a talk, demonstration, farm tour, etc., where members gain knowledge in all the five thematic areas (agriculture, nutrition, environment, STEM and civic engagement). The local leader or a member of the extension service provider will usually oversee this part to teach members. After discussing the project, the meeting is adjourned for members to go for recreation.

Recreation

Recreation includes but is not limited to games, dances, songs, sports. The meeting must always end with recreation. After recreation, club members say closing prayers and disperse.

e. Activities of 4-K Clubs

i. Competitions

The 4-K Club members are encouraged to initiate competition activities to motivate and promote growth both at individual and club level. These may include debates, farm projects, farm products, songs and dances, fashion shows, art and crafts, sports and games and Interviews on various knowledge areas.

ii. Games for 4-K Club Members

Recreation is an important part of each 4-K Club meeting. Each meeting's agenda should have at most 20 minutes for recreation. It is the responsibility of the recreation chair to arrange for this. New games are appreciated by boys and girls.

The Value of Games

- Games at club meetings help to break down barriers of emotion, age and social position
- Shy members often lose their shyness, and the slow ones may not be so conspicuous as to feel uncomfortable so that the potential of all members may be realized
- Games also assist in building self-esteem and bonding

iii. 4-K Club Quiz

Holding quiz contests with 4-K Club members can be fun as well as educational. A quiz contest gives the members a chance to compete with one another to learn improved farming methods and instill patriotism in the club members. Club members may be divided into groups; for example, a club of 25 – 30 members can be divided into four groups before the quiz contest is held.

2.5 GUIDING PRINCIPLES OF CENTERS OF EXCELLENCE

Definition

A Center of Excellence (COE) in the 4-K Club Programme is a school that has registered 4-K Club(s) with the highest standards of operation with well demonstrated best practices. It shows evidence of capability to continuously undertake 4-K Club activities along the five (5) thematic areas.

Objectives

1. To describe schools that have achieved COE status
2. To provide a guide for continuous appraisal and development of 4-K Clubs

Criteria for Assessing the Attainment of COE Status

1. **Having a clear vision** with members having a common understanding of the rebranded 4-K Clubs

   This will be assessed by:

   - Percentage of members who are aware of the vision
   - Status of membership, if currently registered and issued with membership cards
   - Having gender balance in membership and leadership roles

2. Whether the **school management provides supportive mechanisms** to initiate and revitalize 4-K Clubs

   - Is the school board ready to support 4-K Club activities?
   - What are the Head of Institutions (HOIs) perspective on 4-K Clubs?
   - Time and resources provided to the Patron/Matron for 4-K Clubs activities
   - How does the school management motivate 4-K Club Patrons/Matrons and members?

3. **Leadership**

- Process used in appointing leaders
- Do leaders understand their roles and responsibilities?
- Are the leaders effective?
- Is there gender balance in the leadership structure?
- Has the Patron/Matron attended improvement training; demonstrated availability and commitment; and prudently used availed resources on 4-K Clubs?

4. **Club operations**

- Frequency of meetings
- Conduct of meetings
- Documentation of club activities
- Variety of club activities
- Status of 4-K Club projects
- Resource mobilization
- Resource utilization

5. **Thematic areas** (Agricultural Projects; Nutrition; Environmental Conservation; STEM; Civic Engagement and Citizenship and Agricultural Marketing)

- Understanding of thematic areas
- Alignment of club activities to thematic areas
- Relevance of club activities to the chosen thematic area(s)

6. **Partnerships and linkages**

   This is in regard to whether the school is working closely with neighbouring schools to promote 4-K Clubs and also if they have collaborating institutions that are:

   - Diverse in their nature
   - More than one
   - Have specific timeframe of engagement

7. **Replication of club activities** at household level and number of members with individual projects at home

   The programme is keen on diversity of the projects being replicated at home by members.

8. **Adoption of technologies and innovations**

   The efforts made by a club to obtain and practice different technologies and innovations, their uniqueness and whether they are sustainable.

9. **Overall sustainability of 4-K Club(s)** in the institution

   The strategies that have been put in place to ensure:

   - Continuous member recruitment
   - Resource mobilization
   - Training of Patrons/Matrons and members
   - Leadership succession

2.6 TOT TRAINING GUIDELINES

The 4-K Clubs Programme uses a Training of Trainers (TOT) approach for teachers in primary schools who become 4-K Club Patrons/Matrons. Upon establishing successful 4-K Clubs in their own schools, they are expected to reach out to other teachers from nearby schools and assist them to establish 4-K Clubs as well. 4-K Club Patrons/Matrons are also provided with this TOT Manual to aid them in running the day-to-day activities of 4-K Clubs.

The TOT Training is delivered by the 4-K Clubs Programme team members. The sessions consist of lectures, role plays and reflective learning.

a) Objective

The main objective of TOT Training guidelines is to prepare trained Patrons/Matrons to train others. The specific objectives are:

- To provide background of the 4-K Clubs in Kenya
- Explain the role of 4-K Clubs in changing mindset of learners towards agriculture
- Practice some of the procedures of establishing a 4-K Club
- Create and support a core group of teachers who are familiar with the 4-K Club Programme
- Train on resource mobilization to help kick-start 4-K Club activities in schools

b) Learning Outcomes

The Learning Outcomes include the following:

- Develop an understanding of the process of learning the role of a 4-K Club facilitator

- Develop skills, knowledge and confidence in the ability of TOTs to understand the needs of learners, teach creatively and facilitate innovative thinking
- Identify strategies for development of 4-K Club Programme

c) Providing a good learning environment

i. Training Skills

The Patron/Matron of a 4-K Club should possess training skills that include:

- being a good communicator, be specific when training to ensure they focus attention of learners
- Enforce discipline during training
- Encouraging synergy and performance

ii. Important Aspects in a Training Session

- A relaxed climate for participants should be established
- Participants expectations should be clarified
- Training programme objectives and schedule should be made clear
- Norms of behaviour (ground rules) may be set

iii. Preparation of training materials

Adequate preparation is necessary before each training session, ensure the following:

- Plan adequately for the targeted number of participants
- Establish the required space requirements
- Obtain the necessary equipment and supplies

iv. Planning time available for training

- How much time do you have to cover the content?
- How will you break the content into its component parts?
- Can you cover the parts in the available time?
- What will be left out of the training and how will you ensure the learners cover it?

v. Selection of Training Methods

- Training methods should be guided by the objectives to be achieve by each training session
- Choose methods that keep learners interested and involved in the training so that learning is improved

vi. Examples of Learning Activities

The 4-K Club members can conduct Field visits, attend field days or participate in exchange visits. Club members can also visit relevant institutions, such as Parliament, County Assembly,

National Cohesion and Integration Commission (NCIC), Kenya Red Cross Society, KRCS, Agricultural research institutions like Kenya Agricultural and Livestock Research Organisation (KALRO), etc

- The Patron/Matron can engage trained facilitators for example the ward agricultural officers, in an identified topic to mentor the 4-K Club members (Resource persons can be identified from the school, local community or other relevant institutions)
- With the help of the Patron/Matron, 4-K Club members can take part in demonstrations, practical classes, experiments and simulations

- 4-K Club members can take part in group work discussions in order to enhance peer to peer learning
- 4-K Club members can conduct debates on topics related to 4-K Clubs
- Patrons/Matrons can assist 4-K Club members to take part in recreation activities such as games, dances, songs or sports. These may help in boosting self-esteem and bonding for the 4-K Club members

Learning Resources

In addition to the available 4-K Club manuals and publications, secure child-friendly Information, Education and Communication (IEC) materials to aid in the training from the following sources:

i. Digital learning resources such as Videos (e.g., YouTube channels), Audio (e.g. radio programs), Animations, Images

ii. Illustration using diagrams, cartoons, pictures and drawings

iii. Textbooks

iv. Lectures

v. Speeches

vi. Roleplay scripts

vii. Group discussions

viii. Demonstrations or modeling

CHAPTER 3: POSITIVE YOUTH DEVELOPMENT

3.1 BACKGROUND

Positive Youth Development is an intentional approach that engages youth within their communities, schools, organizations, peer groups, and families in a manner that is productive, constructive and promotes gender equity. The approach promotes positive outcomes for young people by providing opportunities, fostering positive relationships, and furnishing the support needed to build on their leadership strengths. Positive youth development emphasizes life skills and developmental assets through the "Five Cs" model that focuses on Competence, Confidence, Connection, Character, and Caring and framed through the lens of relational developmental systems metatheory.

The primary objective of PYD is to create an enabling environment that maximizes the youth's strengths, access to services and opportunities, while promoting their social and emotional competence to thrive free from all forms of discrimination.

Positive youth development is often characterized by three notions. First, youth are resources to be developed, rather than problems to be managed. Second, a problem-free youth is not necessarily fully prepared. Third, youth development occurs in community; PYD involves meaningful interactions between youth and their social environment

The PYD approach recognizes that all youth have strengths, and they will develop in positive ways when these strengths are aligned

with resources for healthy development in the various settings in which young people live and interact.

Research indicates that the more exposure that youth have to positive resources and experiences and where synergy between multiple settings can be established the more likely it is that they will develop positively. Therefore, physical, and institutional resources present in the social environment (for example, family supports) are just as essential for promoting positive youth development as are individual assets (such as skills, talents, and resiliency). These resources provide 4-K Club members with routines and structure, as well as opportunities for learning, recreation, and engagement with individuals and their communities. PYD strategies reach far beyond the classroom, enabling much more holistic interventions by capitalizing on resources in the member's community. PYD will therefore help to move a 4-K Club member towards his/ her maximum level of autonomy, self-direction, healthy social interaction, and positive contribution to society.

3.2 DEFINITION OF KEY TERMS

Positive Youth Development: A system of strength-based youth development which seeks to focus on and promote the positive aspect of a young person's personality rather than to correct the deficit in their personality.

Competence: Positive view of one's actions in specific areas, including social, academic/ cognitive, health, and vocational.

Confidence: An internal sense of overall positive self-worth and self-efficacy; related to the way they developed a belief in their capacity to achieve.

Connection: Positive bonds with people and institutions that are reflected in exchanges between the individual and his or her peers, family, school, and community in which both parties contribute to the relationship.

Caring: Having a sense of sympathy and empathy for others.

Character: Respect for societal and cultural norms, possession of standards for correct behaviors, a sense of right and wrong (morality) and integrity.

Contribution: Being involved as active participant and decision maker in services, organizations, and community.

Monitoring: Gives information on where a policy, programme or project is at any given time (with respect to its targets, output, and outcomes). "Did they do it?"

Evaluation: Gives evidence on why or how targets, output or outcomes have or have not been achieved. "What processes led to..."

3.3 ELEMENTS OF POSITIVE YOUTH DEVELOPMENT

i. Competence

Positive view of one's actions in specific areas, including social, academic/ cognitive, health, and vocational

Outcomes

- Good school grades, academic performance and test scores
- Punctual in activities, events
- Timely completion of assignments

- uses nutrition, exercise, and rest to keep themselves fit
- Aware of career path to take

ii. Confidence

- An internal sense of overall positive self-worth and self-efficacy; related to the way they developed a belief in their capacity to achieve
- Assess whether members know what they want, where they want to go and what's really important to them
- Assess whether members are motivated by and enjoy what they do

Outcomes

- 4-K Club members who have been fearful of participating in activities learn to take risks
- Members feel they can be successful in other areas
- They are able to push their comfort zones and try new things
- They have optimism coupled with realism
- They are coherent and have a positive personal and social identity
- They have a sense of a "larger" purpose in life

iii. Connection

Positive bonds with people and institutions that are reflected in exchanges between the individual and his or her peers, family, school, and community in which both parties contribute to the relationship.

Outcomes

- Increased connection with family and other adults in the community through participation in community service and passion projects
- Strengthened peer connections through group work

iv. Caring

Having A Sense of Sympathy and Empathy for Others

Outcomes

- Sympathize with the afflicted
- Ready to participate in charity works

v. Character

Respect for societal and cultural norms, possession of standards for correct behaviors, a sense of right and wrong (morality) and integrity.

Outcomes

- Able to look beyond themselves and in their demonstration of tenacity during challenging experiences
- Ready to volunteer and help other people
- Able to tell the truth even when it is not easy
- Respects self, others, property, and community
- Takes on increased responsibility at home as a result of the 4-K Club programme

vi. Contribution

A 4-K Club member who develops each of these Five Cs, is considered to be thriving. These thriving youth develop a sixth "C": contribution (to self, family, school and community).

- An openness to challenge & discovery; Club members enjoy a challenge and like to explore new things!
- A growth mindset; members embrace new experiences as a growth opportunity and welcome challenges
- Hopeful purpose; 4-K Club members have a sense of purpose in life, and optimism for future
- A pro-social orientation; a member is respectful, honest, responsible, caring, and value helping others
- Transcendent Awareness; members strive to connect with something bigger than themselves
- Positive emotionality; 4-K Club members are generally positive and optimistic and can manage their emotions
- Intentional self-regulation; members set goals and create effective strategies to achieve them
- Goal Setting and Management: 4-K Club members set goals and persevere, adjusting when necessary to achieve those goals

3.4 GENDER EQUALITY

Gender equality is a fundamental human right that is necessary for a peaceful, prosperous, and sustainable world. Women and girls represent half of the world's population and therefore also half of its potential but gender inequality persists everywhere and stagnates social progress.

PYD embraces the principal of gender equality to overcome stereotyping and to promote positive development that is free of discrimination.

The table below is a guide on; the gender training topics, objectives and the learning outcomes.

Topic	Learning Objective – What is the aim of the lesson?	Lesson Outcome
Gender roles – Jobs & Roles	To challenge gender stereotypes about social roles and jobs.	All roles and jobs are for everyone.
Gender roles -Chores & Leisure	To challenge gender stereotypes about who should do what work, who should play what games and about play and rest	Chores are for everyone. Everyone needs time for play and rest.
Emotions	To challenge gender stereotypes about who is allowed to feel or express what emotions. To practice ways of helping our emotions to pass through us.	Our emotions tell us what we need! All emotions are important for everyone. Everyone is free to express their emotions
Leadership & Allyship	To challenge gender stereotypes about leadership. To discuss what makes a good leader.	Anyone can be a leader. True leadership is about being a courageous voice for our human and natural communities. Being a leader is also about listening and making space for others who have less chances to share their views.

(Annex 1 provides guidelines on how to train club member about gender equality.)

CHAPTER 4: PROJECT THEMATIC AREAS

The 4-K Clubs Programme aims to instill a positive mindset in learners towards agriculture from the current negative perception. For majority of the world's youth, Agriculture is seen as not being "cool' or attractive. Most think of agriculture as back- breaking labour, without an economic- pay off. Thus, in order to attract more young people, the image of agriculture needs to change and offer the young generation a chance to make a difference by growing enough food to feed the world, end hunger and alleviate malnutrition. There is therefore a need to encourage and support youth champions and proactively communicate positive perceptions of agriculture as a career choice.

The change in perception can be achieved through inculcating the practice of agriculture and agribusiness in children from a young age to enhance food and nutrition security while protecting the environment. Club members are encouraged to select projects from the thematic areas that are most suitable for their climatic conditions.

Each thematic area covers the following: Brief background, definition of key terms, learning objectives and learning outcomes.

How to Start 4-K Club Projects in the Thematic Areas

Each 4-K Club is required to run a project touching on one or more of the thematic areas. Project ideas will be conceived by the members after carefully analyzing their situations and determining what will work best for their locality.

i. **After the project idea has been conceived, the next step is to carry out a detailed feasibility study** to assess what will be required to complete the proposed project successfully. The feasibility report should include a description of the new project, the technologies needed, the funds required and the possible sources of financing

ii. **Step two is to develop a project proposal.** This is a detailed document that outlines all the proposed activities from the start to the end. The proposal will be composed of sections comprising of i) Title of the project, ii) Goal, objectives and duration iii) Proposed activities iv) Resources required v) outputs of the project vi) Monitoring activities.

iii. **Secure the approval of the proposal and pilot the project.** The pilot project is an initial small-scale implementation that is used to demonstrate the viability of a project idea. This helps in managing risks of a new idea and identify any challenges before substantial resources are committed

iv. **Mobilize resources** to secure new and additional finances and materials to advance the project

v. **Start small and grow big.** This can be achieved by breaking the idea down into smaller pieces for testing as you plan for growth

Sustainability of Projects

4-K Club projects can be sustained by;

i. Continuously providing knowledge on the establishment and management of the projects. This can be achieved

through provision of the required knowledge and technologies. Useful sources of knowledge include agricultural extension services, educational web portal and promoting exchanges between 4-K Clubs

ii. Investing in irrigation and water harvesting to sustain production

iii. Encouraging competitions between clubs and awarding innovative ideas

iv. Linking clubs to stakeholders that champion predetermined innovations

v. Strengthening market information, linkages to enable the sale of produce

vi. Encouraging cohesiveness among club members through welfare activities

vii. Ensuring Research, innovation and technologies reach the 4-K Clubs

viii. Putting in place other project support facilities such as financial services, roads, electricity, legal, insurance etc

ix. Providing financial support and budget for the projects and the 4-K Club

x. Encouraging investment in new technologies to make farming a viable option for the youth

4.1 AGRICULTURE THEMATIC AREA

4.1.1 Background Information

> "Every person has the right to be free from hunger, and to have adequate food of acceptable quality."
>
> **Article 43, Constitution of Kenya (2010)**

According to the Kenya Youth Agribusiness Strategy 2018-2021, Kenya has about 13.7 million youth which accounts for 35.4% of the total population and constitutes 60% of the total labour force. Kenyan youth are diverse in ethnicity, religion, and socioeconomic backgrounds. Such a diversity necessitates customized initiatives to meet their needs and activate their untapped potentials. Every youth has a role to play in any segment of agricultural/ food value chain.

Agriculture involves growing crops and fruit trees, rearing livestock and fish farming. Basic requirements for agriculture are land and water. This is followed by identifying the agricultural activity and the good husbandry practices that go with the activity.

Different crops and animals perform well in different climatic conditions in Kenya. Majority of farmers practice rain-fed agriculture (Estimated at 95%) and where rainfall is not reliable, irrigation is carried out (Estimated at 5%).

4-K Clubs agriculture based projects form the core of the 4-K Club activities. These projects give an opportunity for members to learn by doing through activities such as planting of food crops, vegetables, rearing dairy cows, poultry and fish farming among others.

4.1.2 Definition of Key Terms

Agricultural projects - any agricultural activity, involving crop farming, livestock rearing and fisheries activities that is carried out individually or collectively for purposes of food and income

Aquaculture - rearing of fish or cultivation of other aquatic (water-based) plants in a controlled environment

Cash crops/enterprise - crops grown for money, e.g. tea, sugar cane, coffee, cotton

Cereals - are grains grown and used for food e.g. maize, rice, oat, wheat, barley, sorghum, millet, etc

Fruit tree - a tree grown for its edible fruit, e.g. mango, orange, avocado, lemon, etc

Hatchery - a building for artificial hatching of fish or poultry eggs

Herbs - plants grown for medicinal value and as spices

Irrigation - any hydraulic process other than by natural precipitation that supplies water to crops, livestock, fish and trees

Irrigated agriculture - agriculture production that relies on irrigation

Livestock - farm animals comprising cattle, sheep, pigs, goats, donkey, camels, etc

Rain-fed - Agriculture production that relies on rainfall

4.1.3 Objectives

To assist pupils, identify and establish different agricultural projects/ activities that can be undertaken by 4-K- Club members for food and income.

Specific objectives

i. To assist the pupils, identify suitable agricultural activities/ projects

ii. To support pupils, establish and manage the different agricultural activities of their preference

iii. To assist the pupils, gain relevant life skills, and knowledge transfers for enhanced livelihoods

c) Target Messages

"Quick and High Return Agricultural Projects Have Proven Spicy for The Youth" "Youth Involvement in Agribusiness Is the Way to Rescue Kenyan Economy" The new face of farming: Youth making agriculture "Cool"

4.1.4 Agricultural Projects for 4-K Club Members

i. Crops Projects

Farming and processing of cereals, pulses, roots and tubers, fruit trees, nuts, herbs, spices, cash crops, etc.

Farming and processing of horticultural crops and vegetables such as tomatoes, cabbages, peas, kales, spinach, carrots.

Farming and processing of spices such as rosemary, mint, chives, ginger, pepper, coriander (Dhania)

ii. Livestock Projects

Dairy farming, milk processing, poultry farming and processing, duck farming, bee keeping and honey processing, cattle, goats, rabbits, pigs, guinea pigs farming and processing, fodder production and processing etc.

iii. Fisheries Projects

Fish farming (Ponds, Tanks, Aquaponics Systems) and processing, Fish seed production (Hatchery operations), Fish feed production, Ornamental fish farming and aquariums making, Fish nets making and repairing, Fish fly making (Artificial Fish Baits) and recreational fishing activities (Sport fishing) etc.

iv. Other Projects along the Agricultural Value Chain

The agricultural value chain can be summarized into five sections that include:

- Agricultural input supply
- Farm production
- Post-harvest handling
- Processing
- Marketing

4-K Clubs have a place and role to play at each segment along the value chain. For example, crop production input supply, this

includes crop inputs supply: seeds, buds, seedlings, chemicals, tools/equipment and machines; Marketing of agricultural produce and products entails buying, selling of products at wholesale (large) or retail (small) quantities. It also involves advertisement and delivery services as well as internet/online marketing.

4.2 AGRI-NUTRITION THEMATIC AREA

4.2.1 Introduction

Agriculture and nutrition are indispensably connected as we get nourishment from the food we eat. Despite this connection, Agriculture does not automatically improve nutrition, but it has the potential to do so. Physical and economic access to adequate and affordable nutritious food is primarily a function of agriculture through support to increased production, improved post-harvest storage and processing including food safety issues such as aflatoxin control, and reduced transport costs which can increase food security.

Agriculture is nutrition-sensitive when apart from production, it addresses the underlying causes of malnutrition which include food insecurity; Poor water and sanitation services; economic access; feeding and care practices at individual, household and community level.

Nutrition security is achieved when food security is combined with education, a sanitary environment, adequate health services and proper care and feeding practices to ensure a healthy life for all household members.

4.2.2 Definition of Key Terms

i. **Food -** products derived from plants or animals that are taken into the body to provide nutrients for maintenance of life, growth and repair of tissues

ii. **Food access -** is achieved when all households and individuals within the households have sufficient resources to obtain appropriate foods for a nutritious diet.

The ability to access food rests on two pillars: economic and physical access

iii. **Food security -** a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life

iv. **Food systems -** Encompass all the people, institutions and processes by which agricultural products are produced, processed, and made available to consumers

v. **Nutrition -** the process by which an organism ingests, absorbs, transports, utilizes and excretes food substances

vi. **Nutritional Status -** an individual's health condition as it is influenced by the intake and utilization of nutrients

vii. **Nutrient -** it is an element in foods that is essential for growth, reproduction and good health

viii. **Malnutrition -** refers to deficiencies, excesses, or imbalances in a person's intake of energy and/or nutrients

ix. **Undernutrition -** is a type of malnutrition which occurs when the body does not get enough food. It is divided into two major categories; micronutrient malnutrition and protein energy malnutrition (PEM)

4.2.3 Objectives

i. The 4-K Club members to understand the role of agriculture in nutrition

ii. To encourage good nutrition for 4-K Club members

iii. To promote Agri-nutrition projects by the 4-K Clubs members that ensure sustained good nutrition

Target Messages

"We are what we eat"

This is a common statement whose importance is often underrated. Our physical and mental well-being is directly linked to what we eat and drink. The nutritional content of what we eat determines the composition of our body cells, bones, blood, hormones, tissue, organs, skin and hair. Good nutrition is a requirement for all individuals and it is derived from what we eat as food and the nutrients contained therein.

4.2.4 Linking Agriculture to Nutrition

Nutrition-sensitive agriculture is a food-based approach to agricultural development that puts nutritionally rich foods, dietary diversity, and food fortification at the heart of overcoming malnutrition. Agriculture is nutrition sensitive when it goes beyond food production to address the underlying causes of malnutrition. Figure 5 shows the different pathways of food from production that help in attainment of nutrition improvement. They entail production for dietary diversification. food processing, post-harvest storage, food fortification, targeted livelihood activities and bio-fortification.

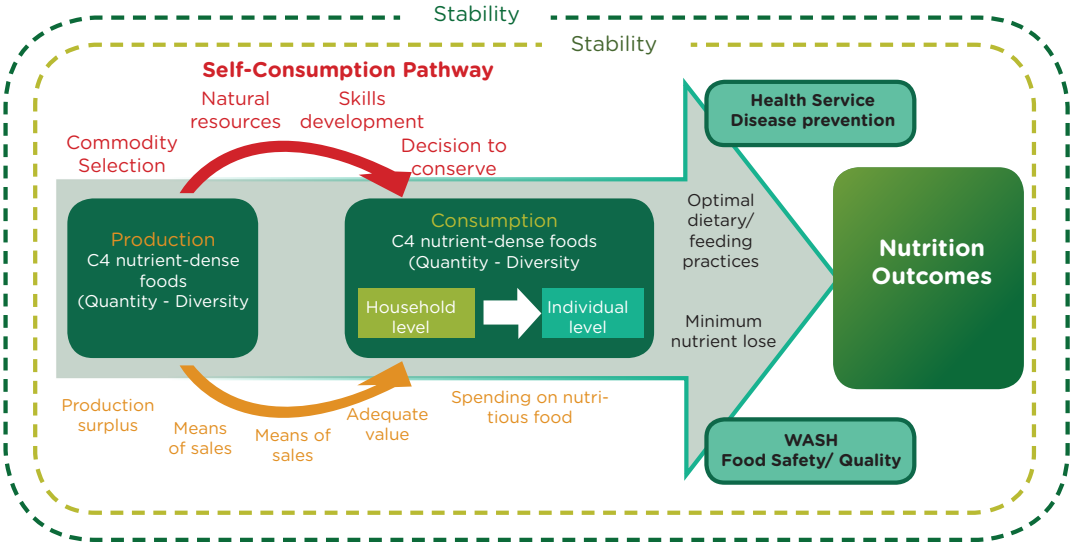


Figure 5: Pathways from Production to Nutrition Improvement

Source: FAO.org

4.2.5 Learning About Food

a) Food Groups

Foods are rich in one or two nutrients, but could be comparatively poor with regard to other nutrients. There is no ideal food, thus the need to take a variety of foods. Food groups are a collection of foods that have similar nutrients, and those whose functions in the body are the same. Nutrients are divided into macronutrients and micronutrients. Water, carbohydrates, proteins, and lipids are called macronutrients, because they are needed in large quantities (over a gram each day). Vitamins and minerals are called micronutrients, because they are needed in small amounts (often micrograms or milligrams each day).

In the past, foods were classified into three groups; energy giving (carbohydrates); bodybuilding (proteins) and protective (vitamins) but currently foods are classified based on food groups and

combinations of foods that share nutritional properties. These food groups are illustrated in figure 6 below.

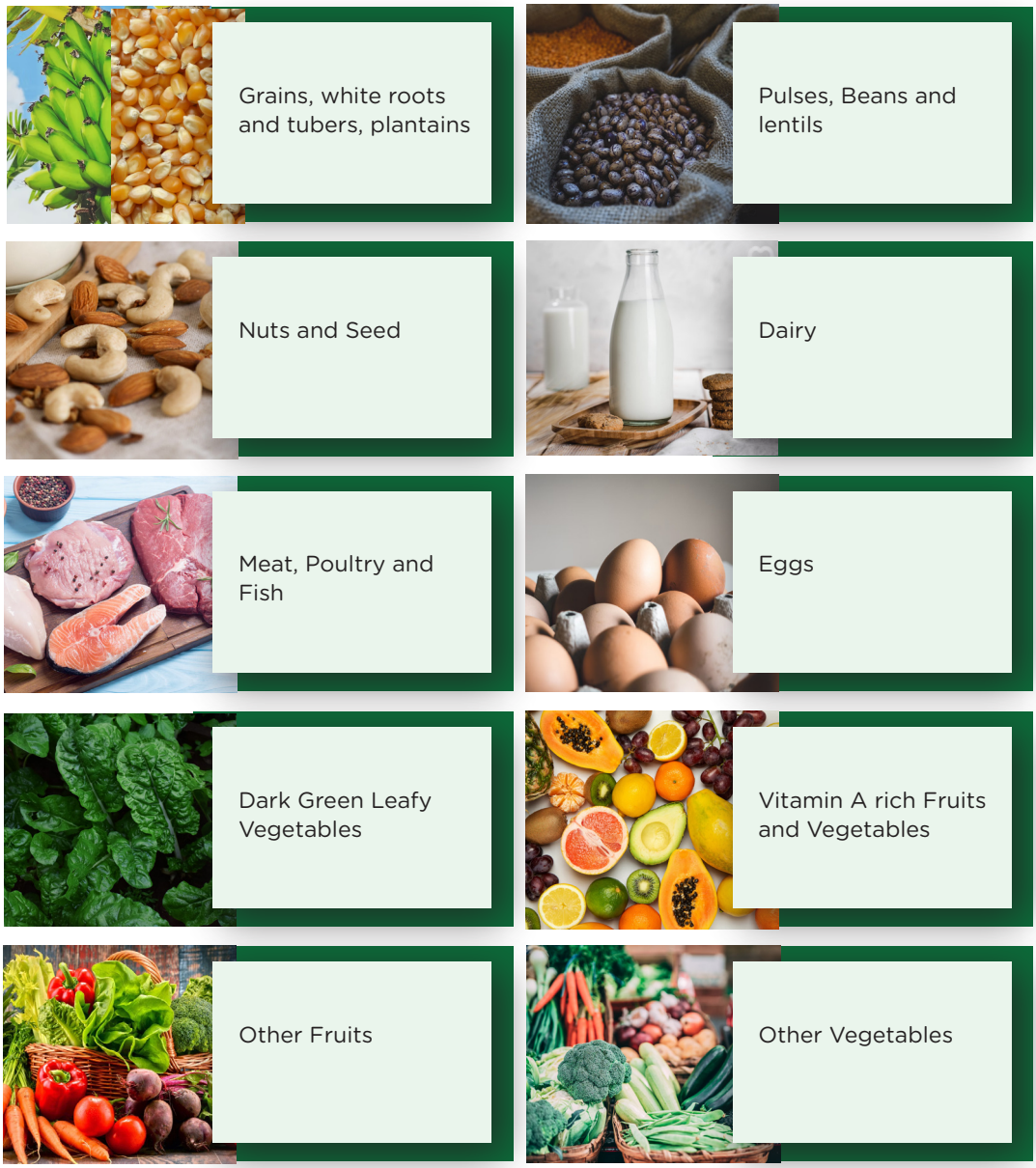


Figure 6: Food Groups

When one eats a variety of foods from each of the groups, the body will receive all the nutrients it needs to function.

b) Healthy Foods

Nutrition and health revolve around the intake of healthy foods and drinks. Intake of healthy foods and drinks together with other healthy practices has been shown to not only support optimal health but also improve the quality of life and as such eventually lengthen life. There is generally an overall feeling of well-being derived from taking healthy foods and drinks.

Unhealthy food is referred to as any food that is not regarded as being conducive to maintaining health and their consumption is a risk factor for the non-communicable diseases (NCD) such as obesity, diabetes, cardiovascular diseases (CVD), and also other chronic diseases.

Common unhealthy foods include processed meats for example sausages, hot dogs, salami (cured sausage), ham, cured bacon, salted meat, and canned meat; Fast foods include foods such as burgers, chips; Refined foods: These are highly processed foods that have been stripped of their original nutrient content and fibre. For example, refined white flour, white pasta, and white sugar; all sweets and candies; Salty snacks e.g. crisps and bites.

The food pyramid presented in Figure 7 is an example of a guide to variety and quantity of foods that should be consumed. The foods at the top of the pyramid are fats and sweets which are favourites for children. They should be avoided or taken in very small quantities. The second layer of the food pyramid contains meats, fish and eggs. These should also be consumed in small quantities. Eating of fish and eggs is more encouraged than eating meat. The third layer consists of dairy products such as milk, cheese, yoghurt and butter. These may be eaten from once to three times daily. The fourth layer contains fruits and vegetables. They fill our bodies with vitamins and minerals and help us to stay strong. Eat these up to

five times a day. It is recommended to eat a rainbow of choices from this layer i.e. fruits and vegetables of different colours in order to derive a variety of nutrients. The fifth layer is carbohydrates, they include rice, potatoes, bread and pasta. These are very important and should be eaten daily. It is necessary to take into account the advice of nutrition experts in addition to following the food pyramid. Also remember to drink plenty of water and exercise daily.

Figure 7: Food Pyramid

c) My Food Plate

My Food Plate as shown in figure 8, is a visual food guide designed to illustrate the recommended five food groups using a familiar mealtime visual: a plate setting. The recommended daily intake of four of the food groups (fruits, vegetables, grains, and protein foods) are illustrated proportionately on the plate, whereas dairy intake is represented by the round glass or bowl on the upper- right periphery of the plate. As the MyPlate icon shows, all the five food groups should be present, half your food plate should be fruits and

vegetables, the other half include whole grains and protein source. Low-fat or fat-free milk or yogurt should also be included.

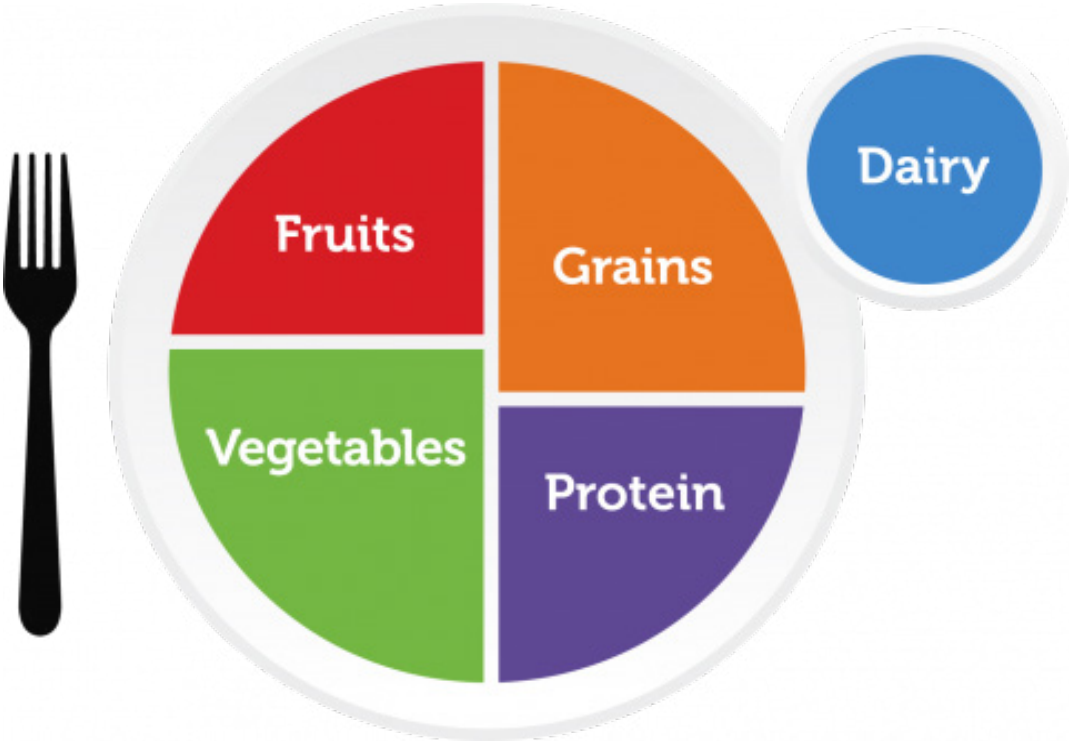


Figure 8: My Food Plate

d) Food Safety and Hygiene

Food safety and hygiene aims to prevent food from becoming contaminated during handling, preparation and storage. This starts right from production through use of safe quality water, proper application of manure and agricultural chemicals. It also involves the handling, preparation and storage of food in a hygienic and clean environment to prevent food borne illnesses.

Failure to maintain food safety and hygiene leads to food borne diseases and food poisoning. Food borne illnesses result from ingestion of foodstuffs contaminated with microorganisms or

chemicals. Contamination of food may occur at any stage in the process from food production to consumption and can result from harmful bacteria, viruses, parasites, chemical substances and environmental contamination through pollution of water, soil or air.

e) Food Packaging

Food packaging is the enclosing of food to protect it from tampering or contamination from physical, chemical or biological means. Food packaging is vital as it ensures food safety, protects the integrity of food products, ensures easy transport of foods as well as a means of marketing the food product. Food packages provide consumers with ingredients and nutritional information. Materials used in food packaging include glass, wood, metals (Aluminum, tin, steel), Paper and plastics.

4.2.6 Agri-Nutrition Projects

4-K-Club Agri -nutritional projects can be derived from four different areas along the nutritional value chain that include food production; Post harvest management; food preparation and utilization; energy conservation and time management.

i. Food Production

Food production involves cultivation of crops and rearing of livestock and other animals for food. Sustainable food production is important for food and nutrition security and optimal health. The food production activities that school children can engage in include school gardens. A school garden is an area of land within the school ground or nearby where the children can learn the simple art of caring for living soil and plants, help learners stay active and practice ‘hands on’ lessons.

Learners have an opportunity to learn agricultural practices on a small scale. They can grow crops such as cereals, fruits, vegetables, roots and tuber crops, herbs and spices, nuts and rear small animals (chicken, rabbits, goats and fish).

In case land is a limitation, other innovative intensive production technologies such as multi- storey gardens, moist beds, micro-gardens, hanging gardens and hydroponics (Figure 9 and 10) can be used.

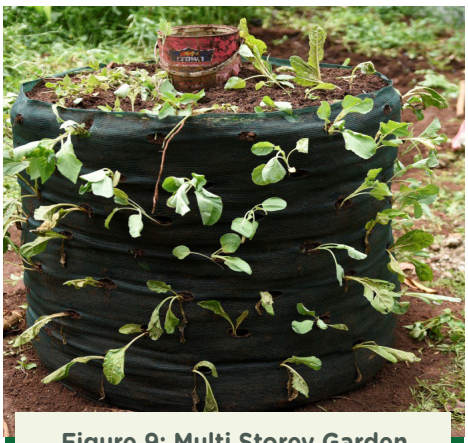


Figure 9: Multi Storey Garden

Figure 10: Wick Irrigation

ii. Post-Harvest Management

Post-harvest management is the effective handling, storing and transporting of agricultural commodities immediately after harvest. The reduction of loss or waste of agricultural produce remains the ultimate goal of post- harvest management strategies. Appropriate post-harvest management can significantly reduce these losses and alleviate food and nutrition insecurity. This can result in better health by preventing health risks related to poor nutrition. Post-harvest also ensures that communities have access to safe and diverse foods.

There are various post-harvest management practices that 4-K club members can engage in. These include: harvesting of produce, Pre-cooling, sorting, cleaning, grading, washing, packaging, storage and transportation. Figures 11 and 12 show different hermetic bags, including a cross section of a hermetic bag.

Figure 11: Hermetic Bags

Figure 12: Hermetic Bags

iii. Food Preparation

Food preparation generally requires selection, measurement and combination of ingredients in an ordered procedure so as to achieve desired results.

Food preparation involves all the steps that occur between obtaining raw ingredients and consuming them as food. Some foods can be eaten raw while others need to be cooked.

Cooking methods include; Boiling, Braising, Poaching, Steaming & Stewing. Baking, Broiling, Frying (shallow and deep-frying), Grilling, Roasting, Sautéing. Figure 13 shows frying of enriched mandazi while figure 14 shows baked enriched bread.

Figure 13: Enriched Mandazi

Figure 14: Enriched Bread

iv. Food processing

Food processing is the transformation of agricultural products into food, or of one form of food into other forms. In this process, raw foods are made suitable for human consumption. Food processing makes food more edible e.g. edibility of grain crops (wheat and maize) can be improved by transforming them into flour through grinding and milling. The flour can be used to make breads, and other edible grain-products.

Food processing is also done to preserve or increase the shelf life of perishable foods. Preservation involves treating and handling food in a way that maintains its edibility and nutritional value while slowing down spoilage. It prevents growth of bacteria, fungi or other microorganisms, and includes processes that inhibit visual deterioration, such as the enzymatic browning and inhibiting natural ageing and discoloration. The nutrient value of foods is almost always altered by the kind of processing it undergoes, thus careful cooking and storage is important to retain the nutrients.

Some of the methods of processing and preserving food that 4-K Club members can engage in include; drying, salting, smoking, freezing, addition of sugar and honey, canning, blanching, pasteurization and fermentation of produce. Figure 15 shows drying of Sukuma wiki in a solar dryer. Figure 16 shows the process of yoghurt making.

Figure 15: Vegetable Drying

Figure 16: Yoghurt Making

v. Energy Conservation and Time Management

Use of energy and time saving devices eases work around the homestead. Some of these gadgets are fireless-cooker (Figure 17), improved jikos, water-harvesting tanks, firewood storage, blenders, pestle and mortars, food processors.

Practices such as soaking grains overnight and covering foods while cooking reduces the cooking time. Practice multi-tasking (dovetailing) whenever possible e.g. washing clothes and cooking githeri, soaking clothes before washing. 4-K Club members can engage in making fireless cookers, jikos and briquettes (Figure 18) for energy conservation.

Figure 17: Fireless Cookers

Figure 18: Briquettes

4.3 ENVIRONMENTAL CONSERVATION THEMATIC AREA

4.3.1 Introduction

Environmental conservation is a practice that that protects the environment and natural resources at individual, community, organizational and government levels. There is need to conserve the environment because it provides clean air to breathe, raw resources, and valuable goods for food and industry, such as medicines and timber.

This section outlines some basic environmental statistics useful for the 4-K club members and Patrons/Matrons, definition of useful terms, community mapping, environmental degradation and conservation and climate change.

Kenya: Some Environmental Statistics, 2021

- Human Population: 5.4M in 1948, 38.6M in 2009 and 47,504,296 (23,548,056 M, 24014716 F) in 2019)
- Access to water – 586M3/person/year against global requirement of 1000 M3/ person/year
- 7.29% forest cover against target of 10% (Nyeri County highest at 38%, Siaya lowest at 0.42%)
- 1,100 species of birds
- 7,004 species of plants
- 25,000 species of invertebrates
- 769 species of fishes
- 250 species of small mammals
- 300 heritage sites to support variety of living things in environment
- Waste generation – 5kg/ person/day

Source: State of Environment Report 2021

4.3.2 Understanding the Environment through Community Mapping

a. Introduction to Community Mapping

Community mapping is a valuable resource that 4-K cub members can utilise to understand and represent the relationships that exist between people, animals, and the environment within the community. Creating a community map is a great approach for the members to capture the interconnections and interdependencies that exist and to identify important areas for conservation efforts.

b. Learning Objectives

- Create maps of community
- Explore interconnections between people, animals and the environment
- Examine cause and effect relationships in the community
- Access Indigenous and historical knowledge of the community through interviews
- Identify issues of importance for an action project

During the mapping process it is important to ensure that all the club members participate by dividing them into smaller group. To produce good maps, use base maps, capture changing conditions over time, validate the maps with on-site visits and contrast with satellite imagery maps.

c. Learning outcomes

The club members gain a deeper appreciation of the complexity, benefit and their role in the local environment and factors that impact it. This knowledge and understanding is crucial for identifying meaningful problems to address through collaborative action.

(Detailed resources for Community Mapping are presented in Annex 2)

4.3.3 Environmental Degradation and Conservation

Definition of Terms

Environment – refers to everything living and non-living that includes people, animals, plants, micro-organisms, air, soils, water, sound, odour, taste and aesthetics.

Environmental conservation - this is an umbrella term for anything we do to protect our environment and preserve our natural resources. It is the responsible use of the environment and natural resources for present and future use, e.g. the planting of trees and grass to reduce soil erosion.

Environmental degradation - this refers to any activity or process that destroys the living and non-living parts of the environment. An example is the overuse of plastics that end up blocking sewages and waterways.

Pollution - this is the introduction of harmful or poisonous substances to the living and non- living parts of the environment. An example is excessive use of harmful chemicals on farms which are eventually drained in to water bodies thus killing fish and other living things.

Waste - material, substance or product that is removed or thrown away because they are no longer useful or required.

Waste management - this is a process to prevent or reduce wastes. It is also a process to re-use and recycle wastes (not throwing away). It is the process of recovering energy from wastes before the small remains are eventually thrown away. Waste management covers the prevention, reduction, re-use, recycling, recovery and to a small extent disposal of remaining wastes.

Figure 19: Waste Management

Objectives

i. To enable Patrons/Matrons and 4-K Club members recognize that both the living and the non-living parts of the environment are important and should be conserved

ii. To allow Patrons/Matrons and 4-K Club members learn the strategies for preserving and conserving the environment and its natural resources.

Target messages

The following are some of the messages that Environmental Conservation projects will communicate to club members:

'We must Protect Nature' (The importance of the environment and natural resources)

'Nature is very unforgiving If we don't protect it' (The need to recognize the negative impacts of environmental degradation)

'Waste is wealth' (How to minimize the negative effects on the environment and natural resources).

General concerns on environment and natural resources including Climate Change, reducing pollution and managing wastes.

4.3.4 Climate Change

a. Introduction to Climate Change

Climate change is a pressing global issue that requires collective action. Educating children about climate change and empowering them to take positive environmental actions from an early age is crucial. This section provides tools for designing climate change mitigation and adaptation actions and encouraging them to undertake climate change action so that they can be part of the solution to climate crisis.

> *"Today we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life-support system. We are called to assist the Earth to heal her wounds and, in the process, heal our own - indeed to embrace the whole of creation in all its diversity, beauty and wonder. Recognizing that sustainable development, democracy and peace are indivisible is an idea whose time has come"* -**Wangari Maathai**

i. Learning Objectives:

- To increase students' awareness and understanding of climate change.
- To empower students to take-action to mitigate and adapt to climate change.
- To foster critical thinking and problem-solving skills related to climate change issues.
- To cultivate a sense of responsibility and environmental stewardship among students.

Target Message:

'Climate change is the greatest threat to humanity today. No challenge poses a greater threat to future generations than climate change.'

ii. Learning outcomes

- By the end of this section, the members will be able to explain the difference between weather, climate and climate change.
- They will have understood the causes and effects of climate change
- Students will understand the importance of taking measures to mitigate and adapt to climate change

iii. Key Terms related to climate change

Term	Definition
Weather	This is the state of the atmosphere at a specific time and place, including temperature, precipitation, humidity, wind speed, and atmospheric conditions.
Climate	Refers to the average weather patterns observed over a long period, typically 30 years or more.
Climate Change	A change in the climate system, attributed directly or indirectly to human activity,
Climate Risk	The potential for adverse effects or impacts resulting from climate change.
Vulnerability	The degree to which a system or population is susceptible and unable to cope with adverse effects of climate change.

Term	Definition
Greenhouse Gases (GHGs)	These are gases that can trap heat in the Earth's atmosphere, contributing to the greenhouse effect and global warming. The main greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6).
Mitigation	Human interventions to reduce the sources or enhance the sinks of greenhouse gases (GHGs).
Adaptation	The adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli or their effects, which minimize harm or exploit beneficial opportunities.
Disaster	A sudden event or series of events that cause significant damage, destruction, and loss of life or livelihoods, often exceeding the affected community's ability to cope or respond effectively.
Nature-based Solutions	These are actions/measures we can take to manage and restore our natural environment/ecosystems while addressing society changes such as food security, water security and environmental degradation.

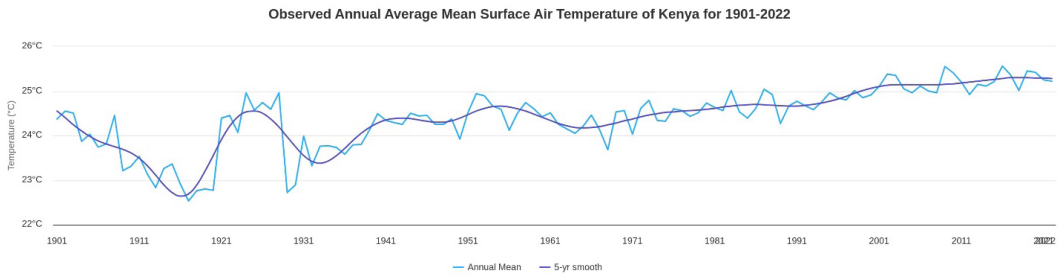
b. Evidence of Climate Change in Kenya:

It is important to share with the 4-K Club members trends showing a change in climate over time leading to temperature rise, extreme weather events, sea-level rise, and biodiversity loss.

Target Messages: Kenya is experiencing heat waves, floods, droughts, and they are increasing in scale, frequency and intensity.

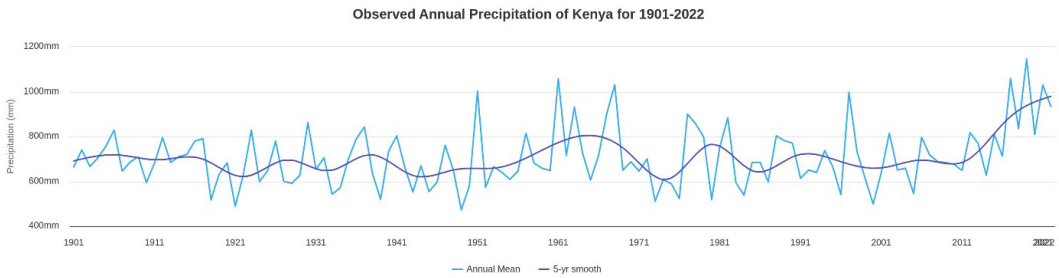
- The earth's climate is changing faster than at any point in its known history because of human activities and this is causing instability around the globe.

- Kenya's economy is highly dependent on natural resources, and therefore highly vulnerable to climate change.
- Rising temperatures and changing rainfall patterns are giving rise to drought and floods that threaten the sustainability of the country's development.
- Climate change is impacting ecosystems, water resources, food health, coastal cones, industrial activity, and human settlements.
- The temperature and precipitation figures below show the trends and rise in temperatures and precipitation over a hundred-year period.
- Temperature: Temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century.



- **Precipitation:** Precipitation in Kenya is projected to remain highly variable and uncertain, however average rainfall is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December.

  Extreme rainfall events are also expected to increase in frequency, duration and intensity and the proportion of heavy rainfall that occurs in heavy events will increase



c. Causes of Climate Change

Target Message:

Human activities are changing the earth's climate, and if we do not act quickly, we will continue to see rising oceans, longer-hotter heatwaves and dangerous droughts that can trigger greater migration, conflict, and hunger around the world.

- Burning fossil fuels, (oil and gas) through industrial development, we are putting more GHGs into the atmosphere. These gases cause Earth's atmosphere to trap more and more heat, causing the earth to warm up.
- Deforestation leads to significant reduction of the canopy cover and alters biodiversity composition thereby affecting the ecosystem. This results in increased soil erosion, reduced number of trees that can absorb Carbon Dioxide (CO2) from the atmosphere through photosynthesis thereby increasing the concentration of GHGs and reduces water reserves in the soils.
- Poverty and encroachment of forests in Kenya are among the greatest drivers of deforestation for fuelwood and land clearing for agriculture.

d. Impacts of climate change

These human activities are causing the earth's climate to change faster than ever before. Climate change is already affecting all parts of the world our country included and impacting many aspects of our economy.

i. Droughts and floods directly linked to climate change.

- Heavy rains have caused flooding affecting Kenyans, resulting to deaths and displacement of people from their homes.
- The drought events in Kenya are happening more often also affecting people, more so, those in the Arid and Semi-arid counties of Kenya.
- Kenya largely depends on its natural resources such as water for energy and food and the country's exposure to climate-sensitive sectors particularly agriculture and tourism, is a large threat to the Kenyan economy.

ii. Impact on the economy

- Agriculture accounts for 27 percent of the total GDP and, exports many agricultural products. Agriculture also provides many jobs to the population and a large portion of the population lives in the rural areas engaged in agricultural activities. Therefore changes in climate affects the economy and livelihoods of Kenyans.
- Tourism also plays a significant role in the economy; floods and droughts have a negative effect on tourism.

- Water scarcity is another area highly impacted by climate change. Severe droughts cause water scarcity due to decline in surface and groundwater recharge. These impact water supply for domestic, agriculture, irrigation, and hydropower. The energy sector is also at risk from climate change because a substantial portion of Kenya's power comes from hydropower.

e. Vulnerability and coping with impacts of climate change

Most people in Kenyan are highly dependent on natural resources for their livelihoods. These natural resources are highly impacted by climate change events of drought and floods thereby making most Kenyans vulnerable to extreme climatic conditions.

- For most communities in Kenya, access to basic services remains a challenge. Poorer households, women, children and socially marginalized groups are particularly vulnerable.
- Women play different roles in household livelihoods, and therefore they experience the impacts of climate change differently.
- Women and men have differing abilities to respond to the threat that climate change poses to their livelihoods, and more often its women and children who are more disadvantaged.

Coping strategies that can be employed by households against floods and drought events.

- Use of modern building techniques,
- Irrigation, vertical planting, early planting, planting drought tolerant varieties and breeds and planting early yielding crops and improving food storage techniques

- improving water storage and drainage system,
- agroforestry and planting of cover crop.

f. Mitigation and Adaptation to Climate Change Projects for the Clubs:

Responding to climate change involves two possible approaches:

Mitigation: Reducing and stabilizing the levels of greenhouse gases in the atmosphere ("mitigation") that trap heat or take action to remove these gases.

We can do mitigation by:

- Practice energy efficiency
- Greater use of renewable energy
- Efficient means of transport implementation; bicycles, electric public transport
- Forest Conservation

Adaptation to the climate change is already happening. This requires adjusting to the changes caused by climate change to lessen the burden of the negative effects and taking advantage of any good opportunities.

It is therefore necessary to create action plans to make things less vulnerable to the effects of climate change, or to make them stronger, and to be ready to adjust to change. This can happen in small or large scale, by an individual to the whole country or even globally.

We can do adaptation by:

- Building flood barriers
- Using scarce water resources more efficiently

- Planting drought-tolerant crop varieties
- Implementing water harvesting technologies and irrigation
- Planting cover crops and practicing crop rotation

(An example of a climate change mitigation and adaptation project is given in Annex 3)

4.3.5 Environment Projects for 4-K Clubs

Potential projects that 4-K club members can undertake in the thematic area of environmental conservation and their sustainability measures.

Projects	Sustainability
1 **Water** • Establish and practice water conservation and storage techniques (protect water sources, stop pollution of sources, grow trees, make good use of waste water, mulching) • Establish and practice water harvesting techniques (establish water storage facilities)	• Practice skills on family farms for ownership, negotiate and apply same skills in neighbors' farms for a token • Practice skills on own farms for ownership • Undertake peer rotational visits for cross learning
2 **Plants** • Establish gardens for conserving traditional high value plants (Identify nutritious, medicinal, curative plants for the gardens) • Package and try out environmentally friendly plant protection techniques (Identify and demonstrate indigenous techniques for crop protection)	• Sale of produce inspires continuity • Good techniques can be patented for financial benefits • Sale of tree nurseries under the government tree growing campaign inspires continuity • Woodlots done on farmlands leads to self- sufficiency in wood fuel

	Projects	Sustainability
	• Establish tree nurseries (Grow fruit and forest tree seedlings suitable for the site) • Grow suitable woodlots as energy sources • Undertake value addition of plant- based products, e.g Bamboo	• Good bamboo artifacts may fetch good prices hence monetary benefits for continuity
3	**Animals** • Rabbit keeping • Bee keeping (Try modern and traditional hives) • Aquaculture (Fish rearing) • Botanical gardens for Biodiversity (The variety of life of plants and animals and their different environments)	Practice of skills on family land for monetary gains
4	**Soil** • Develop techniques for undertaking Simple soil tests and establish corrective measures • Practice soil conservation techniques for rehabilitation and restoration and scale up lessons to family farmlands (Different terraces, mulching, wind breaks, grass strips etc)	Apply the skills back in the family farmlands

Projects		Sustainability
5	**Air** • Develop and apply simple methods of detecting air pollution (Identify substance to detect i.e. dust, methane etc) • Establish and apply air pollution control measures (i.e. How to control polluted air from washrooms)	Establish a simple motivation mechanism for best performing projects
6	**Reclaim and restore degraded lands** • Map all degraded areas in the community (Show in photos and describe levels of degradation) • Apply techniques to rehabilitate the degraded areas (Show photos after rehabilitation)	Apply techniques in the community and farmlands

4.4 STEM THEMATIC AREA

4.4.1 Introduction

What is STEM?

STEM is an abbreviation that stands for Science, Technology, Engineering, and Mathematics. STEM is an interdisciplinary approach to learning where academic concepts are coupled with real-world lessons. Students apply science, technology, engineering, and mathematics in contexts that make connections between the classroom and the world around them. There is an incredible amount of science and mathematics behind everything we do in Agriculture,

yet we do not always recognize it in the classroom. The Kenya Vision 2030 recognizes the need to integrate STEM from early childhood through graduate education. The uptake of STEM subjects and courses in secondary schools and tertiary institutions is still low in Kenya. To reverse the trend, STEM education must be strengthened in primary schools.

The projects and activities incorporate technology to emphasize the application of science and prepare students for future classes. STEM education integrates concepts that are usually taught as separate subjects in different classes and emphasizes the application of knowledge to real- life situations. A lesson or unit in a STEM class is typically based around finding a solution to a real-world problem and tends to emphasize project-based learning. Many STEM lessons involve building models and simulating situations. A good STEM lesson ensures that students understand the connection to the real world.

Science

Agriculture is a great fit for science today because science permeates through everything farmers do - from medicine to animals, to plant breeding technology to make plants more resistant to diseases and pests. In primary school's science, pupils learn about weeds and weed control, pests and diseases and their control. They also learn about various nutrients needed by plants and animals such as Nitrogen, Phosphorus, Calcium.

Topics on balanced diets and the foodstuffs that can provide these nutrients are also taught in primary school syllabus. Other topics in science that are relevant to agriculture and farming include; classification of animals, the digestive systems, weather and soil types.

Technology

One of the driving forces behind agriculture is technological innovation. New technologies are constantly being developed to help farmers increase their productivity. Agriculture is at the cutting edge of technological advancements, whether it is GPS technology that allows machines to work autonomously, the use of drones to map fields and monitor livestock, or the development of robots that plant, monitor, and treat crops automatically.

In our primary schools, Technology is not learnt as a stand-alone subject but traces of it can be found embedded in other subjects such as science and art and craft.

Engineering

Engineering is found in agriculture in areas such as; designing of farm structures, storage and processing of agricultural produce, analysis of data on weather, efficient use of farm machinery, soil management and erosion control. Excelling and understanding of these skills and components by members of the 4-K Clubs, will likely lead them to careers in agriculture engineering, agriculture extension and meteorology.

Mathematics

Mathematics is a key element for every farm business which goes beyond general business calculations of profit and costs. Agriculture also lends itself to working out heights, weights and distances as well as calculations like how much seeds will be needed to plant a farm and how much feed is needed for animals.

4.4.2 Objectives

i. To build the capacity of the 4-K Clubs members to integrate STEM into agricultural activities

ii. To leverage on the agricultural projects and activities of the 4-K Clubs for more understanding about STEM

Target Messages

The club Patron/Matrons should develop target messages that demystify STEM as a complex field. Example of messages to be developed include:

"STEM is fun!"

"Engaging in STEM will broaden your thinking"

"STEM activities can prepare you for a career in science and technology"

"STEM is for both boys and girls, everyone can do it"

4.4.3 STEM Projects for 4-K Clubs

Below are some few projects that learners can take up in STEM. The Patrons/Matrons and members of 4-K Clubs can set up STEM projects. Some examples of STEM projects include:

i. **Setting up a simple weather station in their school.** Pupils can use simple materials such as bottles and funnels for a rain gauge, a plastic bag for a windsock, cans and pointers for a wind vane

ii. **Use of simple gross margin analysis to come up with a viable agricultural enterprise (decision making).** Calculating the profitability of an agriculture enterprise either in their school or at home

iii. **Preparation of compost/Farm Yard Manure.** To be achieved through aggregating farm and household (kitchen) waste, heaping in the corner of the school farm for several weeks then use after decomposing has taken place

iv. **Planting beans in different soil types** to understand the soil types and their properties for food production

v. **Rabbit urine harvesting** for organic application to control pests and for foliar fertilizer

vi. **Learners to improvise the watering of crops** using simple irrigation technologies

vii. **Grafting of passion, avocado, oranges** to illustrate vegetative propagation methods in plants

4.5 CIVIC ENGAGEMENT AND CITIZENSHIP THEMATIC AREA

4.5.1 Introduction

The integration of civic engagement and citizenship into the 4-K Club Programme is meant to help the pupils to develop the knowledge, skills and attitude that they need to build and contribute to the welfare of their communities and become active citizens who can advocate for social justice.

The goal of activities within the civic engagement and citizenship thematic area in the 4-K Clubs is meant to build the capacity and raise awareness of the club members towards making a positive contribution to the quality of life of the communities they live in.

Projects and activities in civic engagement will also contribute towards empowering the 4-K Club members to be better informed and concerned about their communities. These activities will help the members to live as citizens who are patriotic and of high integrity.

4.5.2 Objectives

i. To build the capacity of 4-K Club members to be agents of community development

ii. To provide opportunities for practical involvement in community affairs for the members.

iii. To empower 4-K members towards decision making and good governance

iv. To harness the energy, innovation and skills of 4-K members in community development

4.5.3 Definition of Key Terms

Civic engagement/civic participation - civic engagement can often be synonymous with terms such as civic participation, community involvement, and community engagement.

Civic engagement is an individual or collective action designed to identify and address issues of community concern. It can also include a wide range of efforts to directly address an issue, work with others in a community to solve a problem, or interact with the institutions of representative democracy.

Working to make a difference in the civic life of one's community and developing the combination of knowledge, skills, values and motivation to make that difference is the core of civic engagement.

It means promoting the quality of life in a community. It includes unpaid forms of political activism, environmentalism, volunteering and national service.

Civic identity - this is when one sees herself or himself as an active participant in society with a strong commitment and responsibility to work with others towards public purposes.

Civic life - the public life of the citizen concerned with the affairs of the community and nation as contrasted with private or personal life, which is devoted to the pursuit of private and personal interests.

Volunteerism - volunteerism is the offering of an individual's or group's time, skills or resources to provide services by free choice for the benefit of other individuals, communities or nations without the expectation of financial gain other than reimbursement of reasonable expenses.

Citizenship - citizenship can be defined as the relationship between an individual and a state to which the individual belongs. As a citizen, one is entitled to various rights, privileges and benefits of a citizen. On the other hand, one has to observe various obligations, shared values, responsibilities and duty towards his/her country. The rights of a citizen are enshrined in Chapter 4 of the Constitution. The national values and principles of governance are stipulated on Chapter 2 Article 10.

Citizenship is also concerned with relationships and obligations of people within communities, nations and the global world. Skills and knowledge in citizenship will prepare the members of the 4-K clubs to step into their roles in life as responsible citizens.

Target messages

'Young people have a huge stake in their communities.' All aspects of community development such as the environment, education, healthcare, housing, crime and violence affect young people in one way or another. It is therefore important to prepare children from an early age to be active members of their communities so that they are not merely bystanders on community issues.

Young people can be powerful agents of breaking barriers that are created by factors such as ethnic background, gender, education and socio-economic status. In addition, the voices of children in community development is usually unheard. The 4-K Clubs therefore can be important forums for consolidating the voice of children and building their capacities in decision making.

Useful messages to promote civic engagement and citizenship include;

'We rise by lifting others; It is rewarding to give back and make a difference in the community;'

'We learn by being involved in our community;'

'Leadership develops from service.'

Civic engagement seeks to enable 4-K club members direct their focus and energy towards the civic action, civic commitment, duty, civic skills and social cohesion.

4.5.4 Civic Engagement and Citizenship Projects for 4-K Clubs

Programs and Activities provides 4-K club members with an opportunity to have an impact in their respective learning institutions and the communities around them. It is their "small acts" that eventually produce "big impacts" hence making a difference.

4-K Clubs can integrate the following examples of civic engagement programs and activities:

i. **Participating in public events and meetings -** 4-K club members may participate in public events and meetings such as national celebrations (Madaraka Day, Mashujaa Day, Jamhuri Day) and public barazas. Through such forums, the members will be able to raise awareness among the general public on importance issues of community interest, such as promoting patriotism, national values, cooperation and national unity through presentation of songs, poems, skits, plays and dances.

ii. **Organizing mass clean-up activities -** Mass clean-up activities can go a long way in enabling 4-K club members to appreciate the need to live in a clean and safe environment. Mass clean-up exercises and establishing litter bins can be organized either in class, school compound or within the village or estate. 4-K clubs may also integrate a recycling component within civic engagement as a way of enhancing their environmental conservation projects. Clubs may involve pupils from different schools in order to promote social cohesion. These activities may provide opportunities for the club members to market produce from their agricultural projects.

iii. **Volunteerism and Community Service -** Volunteerism enables members to uphold the spirit of being mindful of other people's welfare. 4-K club members should be encouraged to volunteer their skills, energy and time by giving services for the benefit of the community they live in. Members may assist in community projects as well as offer help to the less fortunate. Club members may visit children homes and homes for the elderly. During such visits, they may carry along part of their farm produce, food and cloth donation. Further, 4-K club members may also participate in raising awareness during blood donation campaigns and hygiene activities.

iv. **Public Walks and marches -** Walks and marches are powerful methods of passing across messages to the public concerning important issues such as agriculture, patriotism, peace and cohesion. Public walks also promote positive interaction among 4-K club members and the members of the public.

v. **Fostering of nationalism, patriotism and national unity -** Kenya's people belong to different communities, races and religions, but these differences need not divide them. They must be able to live and interact as Kenyans. 4-K clubs can be important forums of building and promoting the values of nationhood and mutual respect. 4-K club members may compose songs, poems, plays, dances and comedy skits that seek to promote patriotism, national values, cooperation and national unity. Such items can then be presented during clubs meeting, school parade and assembly, during parent's day forums and meetings as well as during the commemoration of national days.

vi. **Organizing for debates and public speaking competitions** - Organizing debates and public Speaking competitions is a fun way of engaging club members and nurturing their skills in leadership and civic engagement. Topical issues such as importance of agribusiness, the need for patriotism, embracing of national values and principles of governance, importance of cooperation and national unity, contributions of national heroes are possible debate topics within this thematic area. Such debates can be organized within the 4-K Club programme or in conjunction with other school clubs as well.

vii. **Undertaking fundraising initiatives -** Organizing runs, walks and rides can be fun ways of mobilizing club members and members of the community towards fund-raising to support community or club initiative (e.g. hospital, school and 4-K Club projects). Funds raised can be supplemented by the proceeds from the club agricultural projects

viii. **School beautification projects -** 4-K club members may undertake school beautification projects and activities such as tree planting and planting of flowers in the school compound or in community public spaces. Further, the 4-K club members may also participate in the naming of different species of trees found within the school as a contribution to their school.

ix. **Establishment of school magazine -** club members may initiate a school magazine or contribute articles within an existing school magazine. The articles may be on issues such as agriculture, environment, school discipline, patriotism, cohesion and integration. Club

members may also research and write about the history of their school or community. They may also contribute pictures, photographs, quizzes, jokes, poems and personal experiences on issues that are relevant to civic engagement and citizenship.

x. **Talent shows -** Organizing talent shows can provide club members with a forum to showcase their talents in sports, fine art, music, dance, poetry, skits, comedy etc.

xi. **Visits to public institutions and galleries -** Visits to public institutions such as parliament and county assemblies will enable club members to learn more about governance and decision making. Visits may also be made to local public library or museums to learn about country's history. Club members may participate in local Agricultural Society of Kenya's annual shows to learn about agriculture. Visits may also be organized to institutions that are involved in civic engagement and community development activities such the Kenya Red Cross Society and World Vision to learn more about these institutions' projects in civic engagement and citizenship.

xii. **Awareness on dangers of drugs and substance abuse** - 4-K clubs should endeavor to integrate awareness on the dangers of drugs and substance abuse and to create a safe and caring environment. The clubs can play a critical role in making the school a drug free environment. Through innovative and creative activities, Patrons/Matrons of the clubs should take the lead in sensitizing club members about the dangers of drug misuse and abuse and ways of resisting peer pressure towards drugs.

xiii. **Continuous Capacity Building and trainings -** Club Patrons/Matrons are encouraged to explore opportunities for training of club members on skills and attitudes that will enhance their roles in the thematic area of civic engagement and citizenship. The trainings may be on areas such as on First Aid, Fire and disaster preparedness, peace building and conflict management, among others. Such trainings and sensitization forums can be conducted in collaboration with other institutions such as the NCIC, Amani Clubs or similar and relevant institutions within the community.

CHAPTER 5: AGRIBUSINESS

5.1 INTRODUCTION

Agribusiness is a combination of the words "agriculture" and "business," and it refers to commerce in farming and farming-related activities. Agribusiness comprises all activities involved in the supply of farm inputs including all operations which are related to procurement, collecting, grading, storing, agro-processing, transportation, financing and selling agricultural produce.

The main goal of agribusiness is to maximize profit while sustainably satisfying the needs of consumers for products related to natural resources such as biotechnology. The 4-K Club Programme seeks to ensure the transformation of the mindset and perceptions among the young people towards agribusiness. The

Lack of connectivity, long chain of intermediaries and ignorance about buyer demands are some of the factors that have led to collapse of businesses leading to enormous losses creating a negative attitude towards agriculture. The 4-K Club Patrons/Matrons are advised to guide members to select projects that match market demands and ensure customer relations are maintained.

Objective

The aim of introducing agribusiness is to strengthen the capacity of 4-K Club members and Patrons/Matrons in ensuring that they coordinate club activities in a manner that guarantees profits in line with the project objectives.

5.2 MARKETING STRATEGIES AND SUSTAINABILITY

The following are some strategies that can be used to market a club's commodities more profitably:

i. Determine what types of markets are available in their area

ii. Determine the cost of various types of marketing

iii. Determine transportation costs to each of the markets available and sell where transportation costs are lowest

iv. Determine the most profitable form in which to market their products. Club Patrons/Matrons can adopt various strategies to boost their sales including;

- Securing an opportunity to make displays and sales during local agricultural field days and ASK shows
- Liaise with Institutions i.e. KEFRI, KFS in the case of seedlings to get orders for their produce
- Utilize parent's day and school events to market their produce
- Advertise to create markets where none existed before
- Market seasonal products at the peak of demand
- Shorten the marketing channels between the club and their customers

The primary goal of Agribusiness is maximizing profits while minimizing costs. To run a profitable business all the agribusinesses must keep and use records. From the records, a club can trace and ascertain when profits have been realized and plough back to the

project or whether losses have been made and what measures to be put in place to sustain club activities. Other roles of records include:

i. To measure and reward success

ii. Accurate farm record keeping on business performance helps to plan and forecast future input needs, yield volumes and prices

iii. Past records, helps to analyze profits, and costs of growing a crop like kales, spinach or cabbages or rearing a given number of poultries

iv. Records can be used to inform assure financiers/donors on viability of the project

v. Future reference on farm records can help to correct failure in operations and activities

vi. Farm records lead to success by making better management decisions

Some of the records that can be kept by the Patron/Matron and the 4-K Club members include:

i. Financial & Statutory records (cost tracking, balance sheet, MoU)

ii. Management records (business plan)

iii. Production records (identification, breeding, feeding, yields)

iv. Quality assurance records (disease and treatment records)

v. Customer (buyers and suppliers) records

CHAPTER 6: MONITORING AND EVALUATION

Monitoring is a continuous process of collecting and analyzing project information to assist in timely decision making, ensure accountability and provide a basis of evaluation and learning. It is used to provide the management and key stakeholders with indication of progress and achievement of objectives measured against the set indicators. It helps to ensure that programs are implemented in accordance with their design and objectives, and helps answer questions such as "Are we doing the right thing? Are we making progress?"

Evaluation is a systematic assessment of planned, ongoing projects that aims to answer specific management questions to judge the overall value of the project and to provide the lessons learned to improve future actions, planning and decision-making. It gives evidence on why or how targets, output or outcomes have or have not been achieved.

The following tools can be used by the Patron/Matron to monitor progress and evaluate performance of 4-K club activities depending on projects undertaken on the thematic areas:

i. Use of Questionnaires for individual interviews

ii. Focus group discussions

The aim of the Monitoring and Evaluation framework is to act as a guide the 4-K Club Patrons/ Matrons to periodically evaluate the level of transformation of mindset and perceptions of 4-K Club members towards agribusiness; and ensure that the 4-K Club activities are undertaken in line with the intended objectives.

Objectives	Activities	Indicators	Tools/ Data Source
Initiate and establish a 4-K Club in the school	• Mobilize enrollment of pupils into the 4-K club	• No. of pupils enrolling as members in 4-K Club • Percentage increase in no. of pupils enrolling in the club	• Baseline survey • Membership registers
	• Initiate and engage pupils in 4-K club projects	• No. of 4-K Club members involved in club projects • No. of projects initiated and sustained i. Agricultural projects ii. Nutrition projects iii. Environmental conservation iv. STEM v. Civic engagement and citizenship	• Project records • Assessment tests • Club records
	• Mobilize stakeholders to support 4-K projects	• No. of stakeholders supporting the 4-K club projects • Types of resources mobilized • Financial • Material/equipment • Trainings/ mentorship	• Project records • Project budgets • Partnership records • Agreements/ MOUs

Objectives	Activities	Indicators	Tools/ Data Source
	• Training of club members in the 4-K project areas	• No. of training sessions held • No. of technologies adopted • No. of technologies undertaken by club members at school • No. of technologies undertaken by club members at home projects • No. of topics covered	• Training records • Project records • Meeting records
	• Carrying out field visits and excursions	• No. of field visits conducted • No. of technologies adopted • No. of collaborating institutions	• Reports • Photographs • Videos and clips
	• Participation of club members in other activities.	• No. of shows held and exhibitions held • No. of quizzes held • No. of games conducted	• Reports • Photographs • Videos and clips
Presidential Award Scheme	• Participation in the 4-K Club Presidential Award Scheme	• No. of entries registered in the Presidential Scheme • No. of awards won • No. of club members participating	• Event records • Photos and videos • Media reports

ANNEXES:

Annex 1: Guidelines for Training 4-K Club Members on Gender Equality

Breaking gender stereotypes;

The Patrons/Matrons will prepare a list of chores and jobs that people do in the community.

List of Jobs; Teacher, Nurse, Doctor, Police Officer, Chief, Vegetable Farmer, Motorbike driver, Fisherman; fish processor, Tree planter, Petty Trader, shop owner, bus driver etc.

List of Chores; care giving, cooking, cleaning the house,

1. Jobs for everyone

To demonstrate that jobs are for everyone, a list of role models (men and women) who are engaged in the jobs will be prepared. The learners will then discuss from the list examples of people who are role models and breaking stereotypical gender roles.

Activity

An activity will be carried out to clarify the issue further. The jobs will be written on cards and given to each learner. Next the learners will be paired. Without using any words, each pair of learners will mime the activity or job on their card and the other children guess the activity or job. The mime roles should be in ways that are different from what is typical and expected for women/men, girls/boys (e.g., the motorbike driver should be a woman, the police a woman, the nurse a man, the vegetable gardener a man).

The Patron/Matron will Lead discussions on the that show that gender stereotyping is a misconception and that men and women, boys and girls are equally capable of carrying out duties when they have equal opportunities. What are ways we can try to be more like these role models?

2. Chores are for everyone

The Patrons/Matrons will ask the learners to list chores they are familiar with and who typically does them. He should then explain that although some people believe that some chores are for women and girls and other for men and boys, chores are for everyone and if everyone shares the work equally then everyone can rest and play when they need to. Play and rest is for everyone.

3. Emotions are for everyone

Patrons/Matrons will prepare a list of emotions: Happy, Sad, Angry, Worried, Scared, Ashamed Proud, Silly, Nervous, Frustrated Shocked, Sleepy Burdened Bored, Cheerful, Embarrassed etc.

they will then enact the musical emotion game whereby learners play act emotions. The emotions will be written on cards. The Patron/Matron will play some music and when the learners hear the music they should dance or move around the place. When the music stops, the Patron/Matron will flash a card with an emotion written and drawn on it. The learners will then copy the emotion on the card without misgivings.

The Patron/Matron will then explain that;

- Emotions tell us what we need. Happy emotions tell us what is good for us, uncomfortable emotions tell us that we have a problem.

- We should deal with emotions by taking deep, long breaths and watch them pass; We can walk away then breathe; We can slowly count to 10 or 20; We can move our bodies to shake them out; but we should let ourselves feel them.
- Emotions are for everyone, they are our messengers and when we listen to them instead of letting them take control of us, and instead of running away from them, they can offer us helpful information and help us to get what we need.

4. Anyone can be a leader

The Patron/Matron should lead a discussion on leadership by prompting the learners about leaders they admire (both men and women) and why.

They should explain that;

- Sometimes people think leaders need to look a certain way. Sometimes people have narrow ideas about who leaders are. But leaders come in all shapes and sizes from all backgrounds and experiences. Anyone can be a leader.
- Being a leader is also about listening and making space for others who have less chances to share their views and be leaders.
- There is need to create chances/opportunities for everyone to be a leader, including girls, children (not only adults), people with disabilities, those who are shy and quiet, and those who are not in school.
- The learners can also be leaders anytime. They do not have to wait until they are older, finish school, or have a job. True leadership is about being a courageous voice for human and natural communities.

Annex 2: Resources for Community Mapping

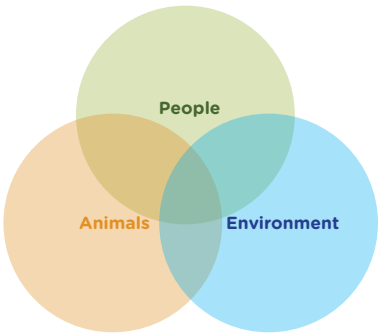
What Is Community Mapping?

Community mapping is a vibrant way to tell the story of a neighbourhood, village or city. Mapping involves identifying relationships, needs, and resources and recording them in the form of a map. It highlights the rich complexity between how people, animals and the environment interact and what issues might arise because of those interactions. Integral to acquiring useful and accurate information about a community is the incorporation of Indigenous Knowledge which is defined by UNESCO as; the understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings.

Steps in Creating a Community Map

Step 1: Introduce the Activity

Patrons/Matrons will explain to the learners that they will be creating a community map to better understand the relationships between people, animals and the environment. The goal of the map will be to help determine issues of ocal importance around which they can develop an action plan. The Patrons/Matrons will assist the students in selecting their community.



Step 2: Mapping the Community

The Patron/Matron with the club members will draw the community maps in groups, pairs or individually. The maps can be; Hand-drawn from observation, Computer generated using mapping software or a game like Minecraft. Created over a printed street map, a 3-dimensional diorama, Imposed over a map from Google Maps or Google Earth

After drawing the map the learners will draw a table and fill in the community information. The information can be obtained from observations, community members, interviews with government officials, existing maps etc. Examples are given below.

People	Animals	Environment
Residential areas School transportation routes (cars, buses, bikes, pedestrians) Recreation areas (parks, sports stadiumsetc) Business centers (shops markets etc) Farming and agricultural lands Community places/ buildings (parks, libraries, town halls, youth centres, police stations, hospitals, treatment plants, markets) Cultural heritage sites Other land use (e.g. gravel pits) Planned future construction (new residential and commercial sites)	Domestic animals types and where they are found Wild animals and where they are found Endangered species and their habitats Common animal crossings over roads or diversions Areas of animal husbandry and farming Areas servicing animals (vet clinics, shelters, etc).	Vegetation areas such as forests, groves, woods, grassland, marshlands, etc. Water bodies such as oceans, rivers, lakes, ponds, etc. Landforms such as mountain ranges, beaches, hills, etc. Conservation areas and protected land Carbon sinks (e.g. forested areas) Land degradation (e.g. erosion, desertification) Growing areas of traditional medicinal plants

Step 3: Learning About the Community and Developing A Plan of Action

The Patron/Matron will introduce the concept of interconnectivity and interdependence. In every community people and animals interact with the local environment and have an impact on one another. They will assist the students fill in the table below provided as an example to better understand the needs of the people, animals and the environment in the community.

Once the mapping process is complete, issues of concern will have emerged presenting potential ideas for action. Club members will have identified resources in the community and where support for solutions might be sought.

Community	Who?	Needs?	Are Needs Met?	Resources?
People	*Local residents*	*Growing population – more food and water*	*No – require more food and water*	*Departments of agriculture and water*
Animals	*Wetland species (frogs, insects)*	*Healthy habitat*	*Current habitat is healthy, but is being contaminated by industrial effluence*	*Local wildlife advocacy group*
Environment	*Local wetland*	*Protection from pollution and disturbances*	*No – there are plans to develop wetland into shops*	*Local wetland conservation group*

Step 4: Closing the Mapping Exercise

The following debriefing questions will help the learners better understand their environment through mapping.:

- What did you learn about the relationships between people, animals and the environment in this community?
- Do you think there are members whose needs are not being met? If so, which ones?
- Do you think some members' needs are being met at the risk of the needs of others? What are these needs? Are they actually needs or are they wants?
- Which issues or concerns in our community did you find particularly interesting?
- What issue or concern do you feel is most important to address? Why?

Step 5: Introduce the Community Score Card

The Patron/ Matron will ask the learners to observe interactions in their neighbourhood between people, animals and the environment in the following days. Taking into account the cause-effect of the interactions and whether or not they are helpful or harmful. The learners will record the findings in the chart below. The score card will help the learners understand the beneficial activities and the harmful activities caused by humans and animals in the community.

Community _____

Community Scorecard - People/Animals/Environment Interactions				
Cause	**Effect**	**Hurts**	**Helps**	**Neither**
E.g. Person plants tree in yard	Can create food and shelter for birds	X		

Annex 3: An Example of a Climate Change Mitigation and Adaptation Project

i) Differentiating Between Weather, Climate and Climate Change

To understand climate change, it's important to distinguish between weather and climate.

Weather is the state of the atmosphere at a particular time and place, including various meteorological parameters such as temperature, precipitation, humidity, wind speed, cloud cover, and atmospheric conditions.

Climate is the usual weather that happens in a place over a long time usually over many years - 30 year or more. Knowing about climate helps us understand how the weather can change over time, it provides a broader perspective on atmospheric conditions compared to short-term weather variations and is crucial for understanding how it affects things around us.

Climate change means there is a significant difference of the average weather conditions over a long period usually 30 years or more, these changes can make the earth warmer or cooler, change how much rainfall we receive, and how winds blow differently. Climate change can be caused by natural weather patterns that occur over time or by changes caused by human activity. The activities include deforestation, changing land use and pollution from burning fossil fuels such as oil and coal that are putting more GHGs into the atmosphere. This long-term trend is what differentiates climate change from weather variability.

ii. How to Start Projects for Mitigation and Adaptation to Climate Change

To initiate climate change projects, the 4-K Clubs require to start projects that specifically address issues of climate mitigation and adaptation. The normal project cycle starting from project planning, resource allocation, learner engagement, and monitoring and evaluation strategies are tools to be employed in all projects. Climate change mitigation and adaptation projects that prioritize supporting vulnerable communities to manage drought and flood risk with a focus on agriculture and food security and biodiversity are good starting points. Other areas of focus are projects concerning energy, tourism, transport, and infrastructure. Patrons/Matrons should consider multipurpose climate change projects that focus on both mitigation and adaptation as they are more suitable.

Example of climate change project implementation

Project title (idea): Community Tree Planting for Climate Mitigation and Adaptation

Overview: This project would focus on planting trees in a local community. It is a multipurpose project as it addresses both climate change mitigation and adaptation. Trees absorb and store carbon dioxide, helping reduce greenhouse gas emissions- important mitigation strategies. They also provide shade reducing heat effect and help manage stormwater- important adaptation strategies.

Getting started: The club members should assess the impacts of local climate change, such as rising temperatures, more severe floods, or drought and identify areas in the school community that would benefit from additional tree cover.

Planning:

After identifying the locations for tree planting

- Set project goals, such as number of trees to plant, targeted locations, species diversity, etc.
- Research appropriate tree species for the local climate and conditions.
- Connect with local conservation forestry groups, or conservation organizations or the Kenya Forest Service local office for support to coordinate planting efforts and access additional resources to set up a tree nursery or for sourcing tree seedlings
- Develop a timeline and budget for purchasing, transporting, and planting the trees.
- List all the technical requirements needed for projects, such as site selection, species selections, gardening tools, documentation and communication tools, educational/ training materials, source of water, land etc.
- Involve club members in all aspects of the project - site selection, species research, ordering trees, setting up the nursery, digging holes, and planting
- Teach about the science behind how trees mitigate and adapt to climate change
- Assign roles and responsibilities, jointly develop schedules to keep everyone engaged
- Most importantly, incorporate fun, hands-on activities like tree trivia or scavenger hunts.

Implementation

- Schedule tree planting events, request for support from other students, parents, community volunteers, the broader school community
- As guided by the forester, environmental officer or environmental expert ensure proper planting techniques are used to give the trees the best chance of survival
- Take before, during and after photos.

Monitoring and Evaluation

- Support the club members to develop a monitoring and maintenance schedule for the tree nursery, for the planted trees to ensure successful growth
- Create a tree nursery inventory, a tracker to monitor growth, survival rates of the trees
- Measure the impact of the project
- Share your findings with the school community and celebrate the accomplishments!

Sustainability of Projects

It is important to ensure short-term and long-term sustainability of the school community tree planting project. By ensuring sustainability the project can evolve into a lasting, impactful initiative that continues to provide climate change educational and school community benefits for years to come. Here are some key strategies to consider:

1. Establish a Tree scouting program through recruitment of volunteer scouts to patrol the community on activities concerning trees.
2. Encourage proposal writing to access and secure funding:
3. Have a replacement plan by replacing dead trees with more suitable species.
4. Advocate for and secure school community support by organizing tree planting events and encouraging each individual to 'adopt' a tree and celebrating milestones and achievements.
5. Monitor and Adapt: Establish clear metrics for success, such as tree survival rates, growth, and carbon sequestration by collecting data and sharing the findings with the community.

Annex 4: The 4-K Clubs Organizational Structure

Programme Stakeholders and their Roles at National and County Levels

4-K Clubs Partners and Stakeholders

- National and County Governments
- Ministry of Agriculture and Livestock Development
- Ministry of Education
- Ministry of Youth Affairs, Creative Economy and Sports
- Ministry Information, Communications and Digital Economy
- Ministry of Environment and Forestry
- Ministry of Water, Sanitation and Irrigation
- The National Treasury and Economic Planning
- Agriculture and Education Committees in the Senate and National Assembly
- Development Partners (ARD)
- Project Beneficiaries
- Private Sector
- Research and other Institutions
- External consultants and service providers
- Media

Role of National Government

- Overall coordination, planning, monitoring, and reporting on implementation performance of the 4-K Clubs through MOALF&C and Partner Ministries
- Prepare relevant project and reporting formats
- Coordinate with stakeholders and provide timely updates on performance of 4-K Clubs,
- Overall policy oversight and guidance, governance support, strategic direction and major decision making to the 4-K Clubs
- Institutionalize the coordination mechanism for 4-K Clubs

Role of County Governments

- Establish County Coordinating Committees
- Resource mobilization towards4-K club programme implementation
- Coordination of activities under implementation through their alignment with and integration into existing planning and strategy tools at the county level
- Serve as a platform to share lessons learnt and evidence-based good practice from the Clubs and elsewhere

Role of County Coordination Committees

- Coordinate registration and management of 4-K Clubs at County Level
- 4-K Clubs formation and registration

- Stakeholder collaboration
- TOT Training for Patrons/Matrons and Extension Staff
- Coordinate the Presidential Award Scheme at County Level
- County awards programme
- Appoint judges, identify venues and invite Chief guests
- Publicity of the award events and resource mobilization

Role of Programme Beneficiaries (4-K Club Members, Patrons/Matrons, Community)

- Establish and manage 4-K Clubs
- Undergo extensive capacity building
- Sign commitment forms showing their participation in the programme's activities
- Prioritize intervention areas
- Develop proposals for funding identified projects
- Participate in the Presidential Award Scheme and knowledge sharing fora

Annex 5: The 4-K Clubs Presidential Award Scheme

The 4-K Clubs Presidential Award Scheme was introduced in the newly rebranded and revitalized 4-K Clubs. It is abbreviated as 4-KCLUBPAS, followed by the year of execution. All 4-K Clubs qualify to participate subject to registration before the announced deadline.

Every year, a set of guidelines will be developed to aid in the planning and execution of the award scheme. They will be useful to all the stakeholders involved in the award process.

Objectives

i. To provide a platform for pupils to showcase their talents

ii. To provide a platform for mentoring, coaching and handholding upcoming innovators

iii. To provide a platform to identify, recognize, celebrate and reward innovative 4-K Clubs

iv. To harness innovations and technologies that can be disseminated for use by others

v. To create a database for emerging innovations from 4-K Clubs

vi. To provide an opportunity for the pupils to have fun, interact and network

Flow of the Competition

i. Overview of 4-K Club Competition

ii. Details of 4-KCLUBPAS

iii. Call for Participation

iv. Procedure of Registration

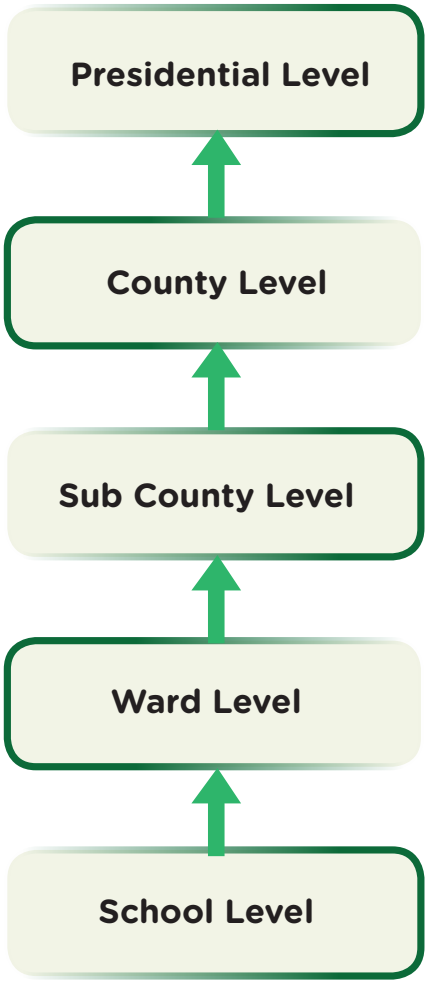
v. Confirmation Letter/Email

vi. Judging Activity

vii. Awarding

Judging and Awarding of Winners

This will be done at different levels starting from the school level, ward, sub county and at county level where 47 entries will be expected to compete for the ultimate position of winner at the national level.



Upon completion of the assessments at all levels of the competition, the top 3 winners will be announced and they will be presented with their prizes at Jamhuri Showground during the upcoming Nairobi International Trade Fair.

The winning top schools will be notified and their logistical arrangements made in time for their representatives to travel to Nairobi for the awarding ceremony.

4-K Clubs are encouraged to participate in the 4-KCLUBPAS every year.

Prizes

These will mainly comprise trophies, plaques, medals and merit certificates.

Annex 6 : Step-By-Step Registration Process for the 4-K Clubs

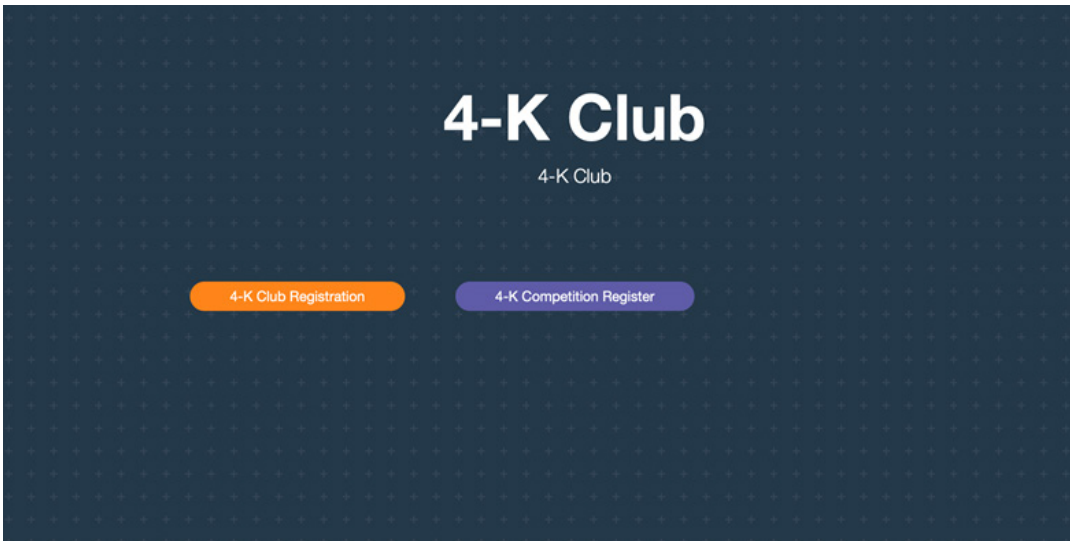
The Patron/Matron of the 4-K Club should register their 4-K Club as guided below:

Step 1: Access the registration link from the 4-K Clubs website

i. Go to the website https://4-kclubs.go.ke

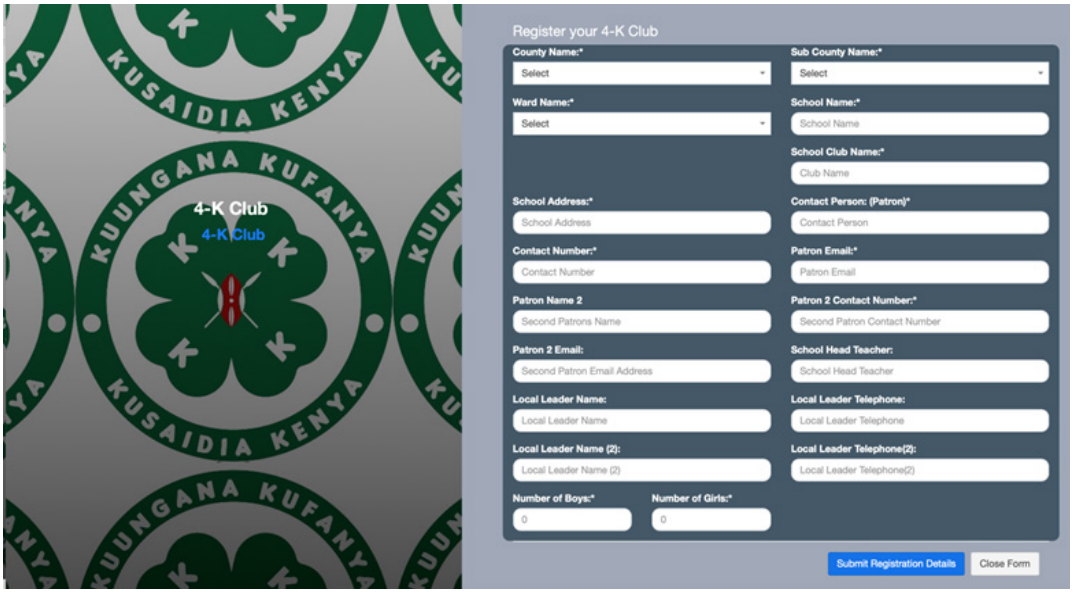
ii. Click on the Register tab

iii. Click on the orange 4-K Club Registration tab



Step 2: Fill the registration form and submit

Use the drop down options to select County, Sub County and Ward where school is located. Fill the rest of the sections. After filling and submitting the form, wait about one week and check the provided email addresses for registration certificate.



Step 3: Download and Print Certificate

Upon receiving the certificate, proceed to print it and have it stored in an appropriate place in the school.

No. C0000XXX/XX

REPUBLIC OF KENYA

Ministry of Agriculture and Livestock Development

4-K Clubs Programme

Certificate of Registration

This is to Certify that

4-K Club

of

Primary School

is duly registered with the Ministry of Agriculture and Livestock Development

on

Date of Registration

4-K Clubs Programme Coordinator

Step 4: 4-K Club Members Registration

The 4-K Club Programme will send Membership Cards according to the indicated number of members.

i. 4-K Club Membership Cards Distribution

All registered 4-K Club members will be issued with membership cards upon successful registration of their club by the 4-K Club Patron/Matron.

A sample membership card is as shown below:

The membership card contains the following details:

1. Certification of membership, Patron/Matron to enter name of 4-K Club member
2. Name of 4-K Club as per the club's certificate

3. Member number, Patron/Matron to give a member number e.g. 1/271/2023 (member number, number of 4-K Club and current year)
4. Name of Patron/Matron and signature
5. Name/Signature of PC to be pre-printed in all cards
6. Backside of card to be stamped with the school's official rubber stamp

ii. Number of Cards per Club

Membership cards will be issued periodically to the members according to the number of members indicated during the registration of the club.

iii. Record of Issued Cards

Upon receipt of cards, the school Patron/Matron will fill in the necessary details for the individual members and have the back of the card stamped accordingly. The Patron/Matron will then fill the provided register and take a snapshot or scan the form and send it to the 4-K Club via info@4-kclubs.go.ke or 4kclubske@gmail.com or via whatsapp to programee officials.

iv. Replacement of Lost or Additional Membership Cards

In the event that a member loses his/her membership card, the Patron/Matron will request for extra cards and issue a replacement card using the details already entered in the duplicate sheet. In case additional members have joined the club and the Patron/Matron wishes to issue new cards, they will also request for additional cards and issue them appropriately.

4-K Clubs Programme

Membership Cards Register

County _____ Sub County _____ Ward _____

Name of School _____

Name of 4-K Club_____

Name of Patron/Matron _____ Date _____ Signed _____

Head Teacher _____ Date _____ Signed _____

School Stamp

No.	Name of Member	Member No.	Gender	Grade/Class

Annex 7: 4-K Clubs Ceremony Attire

During award ceremonies and other formal functions, 4-K Clubs Patron/Matron and members should be dressed in the attire outlined below.

President

- Brown Warden's Fedora with Gold crown
- Green neckerchief with Gold and White stripes
- White long sleeve shirt with Green Gold-striped shoulder epaulettes, brass buttons

CS/CAS/PS

- Black beret with Gold crown
- Black neckerchief with Green and White stripes
- White long/short sleeve shirt with Green Single Gold- striped shoulder epaulettes

Governor

- Black beret with Silver crown
- Green neckerchief with Grey and White stripes
- White long/short sleeve shirt with Green Double Silver- striped shoulder epaulettes

Subcounty Agri. Officer/Ward Agri. Officer

- Black beret with Silver embroidered crown
- Green neckerchief with Grey and White stripes
- White long/short sleeve shirt with Green Single Silver- striped shoulder epaulettes

School Patron

- Black beret with coloured embroidered crown
- Green neckerchief with White stripes
- White long/short sleeve shirt with Green Single White- striped shoulder epaulettes

Members and Officials

- Green beret with embroidered crown
- Green neckerchief with white stripes
- White short sleeve shirt with Green flat epaulettes

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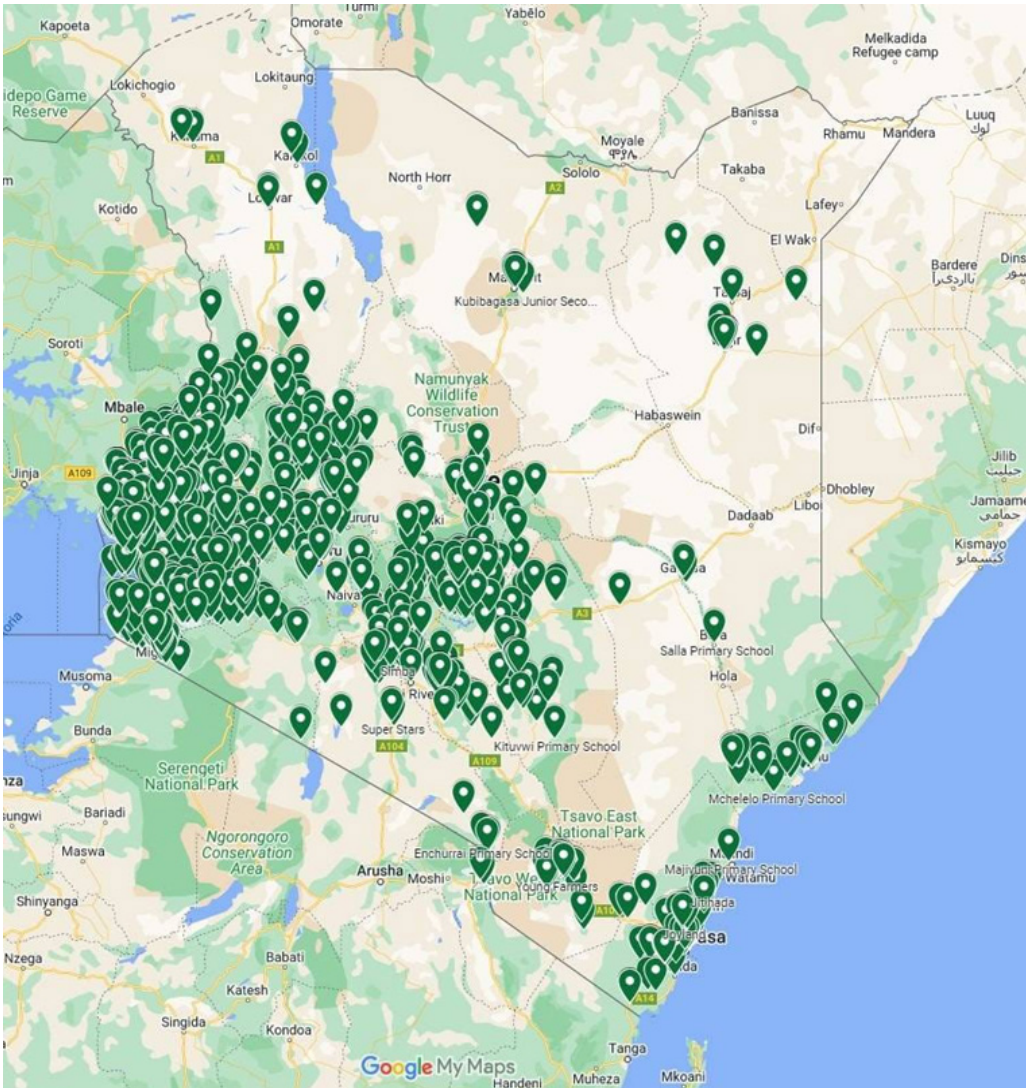

The current spread of 4-K Clubs in Kenya

4-K CLUBS TOT MANUAL, 2024

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