

Contact Us

NATIONAL LAND COMMISSION

ACK Bishops Garden Annex, 1st Ngong Avenue
Off Ngong Road, 7th Floor
PO Box 44417-00100
Tel: + 254-2-2718050,

NAIROBI, Kenya

 $Email: in fo@land commission.go.ke \;,\; we b site: www.land commission.go.ke$

© NLC 2019





List of Figures	VII
List of Tables	vii
Abbreviations & Acronyms	viii
Foreword	1
Acknowledgement	2
About this Toolkit	5
How to use the Toolkit	6
CSP STEP FIVE: DEVELOPING SCENARIOS	9
Introduction	9
TOOL 5.1-A: DEVELOPING A 'NIL INTERVENTION' SCENARIO FOR	
PASTORAL AREAS	13
TOOL 5.1B: ELEMENTS TO CONSIDER IN PLAN SCENARIOS FOR	
PASTORALIST AREAS	17
Protection of Key Resources	18
Coordination with other issues and sectors	18
Planning for Services and Infrastructure Adapted to the Pastoral Context	19
TOOL 5.1-C: ITERATIVE BRAINSTORMING AND EVALUATION	21

TOOL 5.2-A: OVERLAY ANALYSIS	23
TOOL 5.3-A: METHODS FOR REVIEW AND EVALUATION OF PROPOSALS.	25
TOOL 5.3-B: COST BENEFIT ANALYSIS	27
5.4.1 Steps for Conducting Cost Benefit Analysis	27
Tool 5.3-C: Pastoral Production Impact Appraisal	29
5.5.1 Steps in Pastoral Impact Appraisal	29
TOOL 5.3-D PLANNING FOR LIVESTOCK WATER POINTS IN THE CSP	33
TOOL 5.4-A: THE THIRD STAKEHOLDERS MEETING(S)	37
Anticipated Output	38
Participants in the Activity	38
Steps in Conducting the Third Stakeholder Meeting(s)	40
CSP STEP SIX: FORMULATION OF PLAN PROPOSAL	47
Introduction	47
TOOL 6.2-A ELEMENTS FOR THE PREFERRED LAND USE	
ZONING FRAMEWORK	49
TOOL 6.3-A REPRESENTING THE DESIRED SPATIAL STRUCTURE	53
TOOL 6.4-A: DEVELOPING AN IMPLEMENTATION FRAMEWORK	55
TOOL 6.4-B ELEMENTS TO CONSIDER FOR THE CIP	57

LIST OF FIGURES

Figure 5.1 Developing Scenarios	10
Figure 5.2 Elements to Consider in Plan Scenarios in Pastoral Areas	.17
Figure 5.3 Steps in conducting the Third Stakeholder Meeting	40
LIST OF TABLES	
Table 5.1 Developing Scenario	11
Table 5.2 Examples of Scenarios and Projections	21
Table 5.3 Key Guiding Questions in Some Thematic Areas	24
Table 5. 4 Suggested Methods for Evaluating Proposals for Plan Scenarios 2	25
Table 5. 5 Worksheet: Pastoral Production Impact Appraisal Checklist	30
Table 5.6 Stakeholder Categories	39
Table 5.7 Example LUA Ranking	41
Table 6.1 Pre-Planning Development Scenarios	48
Table 6.2 Suggested Land Use Zones and Associated Strategies	
and Measures	49

ABBREVIATIONS & ACRONYMS

CIP Capital Investment Plan

CGIAR Consultative Group on International Agricultural Research

CSP County Spatial Plan

EU **European Union**

FAO Food and Agriculture Organization of the United Nations

GIS Geographic Information System

ILRI International Livestock Research Institute

Land Use Alternatives LUA

Resource Conflict Institute **RECONCILE**

NLC National Land Commission



FOREWORD

This Toolkit has been prepared in response to the unique situation pertaining in the Pastoral Areas. The Toolkit addresses Steps 5 and 6 in the County Spatial Planning process specifically detailing out, the process of developing scenarios and formulating plan proposals.

The Toolkit contains eleven tools which make it a handy reference for the County Governments in Pastoral Areas in delivering on these crucial stages in the County Spatial Planning process.

On behalf of the Commission, I recommend the Toolkit to be used as a legitimate advisory to County Governments in Pastoral Areas as a necessary reference and guide in preparing their respective County Spatial Plans.



Kabale Tache Arero

Ag. Secretary/CEO,
NATIONAL LAND COMMISSION





ACKNOWLEDGEMENT

It took the concerted effort of a number of professionals, interested agencies, well-wishers, development partners and

committed practitioners to produce this Toolkit.

The Commission thanks the following agencies for the support in preparing the document: European Union (EU) through the Food and Agriculture Organization of the United Nations- Land Governance Programme (FAO - Kenya); International Livestock Research Institute (ILRI); the CGIAR Research Program on Livestock; and the Feed the Future Kenya Accelerated Value Chain Development program and Resource Conflict Institute (RECONCILE).

The Commission commends the valuable direction and leadership of the Land Use Planning Directorate in preparing the Toolkits. Specifically, we appreciate the following authors: Dr. Herbert Musoga, PhD (Director Land Use Planning-Team Leader); Mrs. Rose Kitur (Deputy Director of Land Use Planning); Dr. Lance Robinson (Senior Scientist and researcher specializing in environmental governance and social-ecological resilience in pastoralist systems - ILRI); Mr. Elijah Letangule (Deputy Director Advocacy-NLC); Husna Mbarak (FAO-Kenya); Mr. Peter Ken Otieno: Technical Coordinator- Rangelands Initiative Africa Programme of ILC Coordinated by RECONCILE; Mr. Daniel Mmbai (Principal Land Use Planner); Mr. Christopher Kitonga (Principal Land Use Planner); Ms. Alice Kaumba (Chief Land Use Planner); Mr. Adelbert Moriango (Senior Land Use Planning Assistant); Mr. Ebole Syumbu; Mr. Kelvin Mutwiri and Mr. Kepher Gallus.

Special appreciation to Mrs. Caroline Otieno for the secretarial work and logistics and Franklin Ongeti for doing the Graphic design and Layout work.

We acknowledge valuable contribution and comments from the following categories of stakeholders: Hon Kulamo Bullo (Chairperson Land Sector Frontier Counties Development Council), Mr. Achiba Gargule (Government & Policy Advisor FCDC), Mr. Buoga Jared Omondi (Delivery Director Presidential Delivery Unit).

National Land Commission County Coordinators: Rebecca Maritim (Baringo); Josphat Wasua (Laikipia); Eric Ndeda (West Pokot); James Longole (Turkana); Molu Halakhe (Marsabit); Abdullahi Jillo (Tana River); Mathew Muli (Isiolo) and John Lolkitekui (Samburu).

County Chief Officers in charge of Lands & Physical Planning: Catherine Changwony (Baringo), Rashid Arale (Isiolo), Muktar I. Gucha (Marsabit), Timothy Lomulen (West Pokot), Mark Ewoi (Turkana).

County Physical Planners: Frankline Kiche (Baringo), Joshua Ondari (West Pokot), Stephen Njoroge (Turkana), Kamiri Elvis (Lamu), Mwenda Riungu (Tana River), Peter G. Nteere (Isiolo), J. Kinyua Miriti (Samburu), Danson Kolia (Lamu), Kimutai Cheruiyot (Isiolo), Osman M. Galgallo (Isiolo).

Dr. Herbert Musoga (PhD)

Director Land Use Planning, NATIONAL LAND COMMISSION

PREAMBLE

ABOUT THIS TOOLKIT

This Toolkit explains the tasks to be undertaken in Steps 5 and 6 of the County Spatial Planning process, which focus on Developing Scenarios and formulation of Plan Proposals as documented in page 17 of the County Spatial Planning: Monitoring and Oversight Guidelines.

The Toolkit is divided into two main sections relating to Step Five and Step Six of the county spatial planning process respectively. Each of these steps is broken down into key activities and tasks that need to be carried out as a part of each step. This toolkit contains eleven tools detailing out specific aspects in the process.

The tools are:

- → Developing a 'Nil Intervention' Scenario for Pastoral Areas
- → Elements to Consider in Plan Scenarios for Pastoralist Areas; Overlay Analysis
- → Methods of Review and Evaluation of Proposals
- → Cost Benefit Analysis
- → Pastoral Production Impact Appraisal
- → Planning for Livestock Watering Points in the CSP
- → The Third Stakeholders Meeting(s)
- → Elements for the Preferred Land Use Zoning Framework
- → Representing the Desired Spatial Structure
- → Developing an Implementation Framework
- → Elements to Consider for the CIP

WHO ARE THE TARGETED USERS OF THE TOOLKIT?

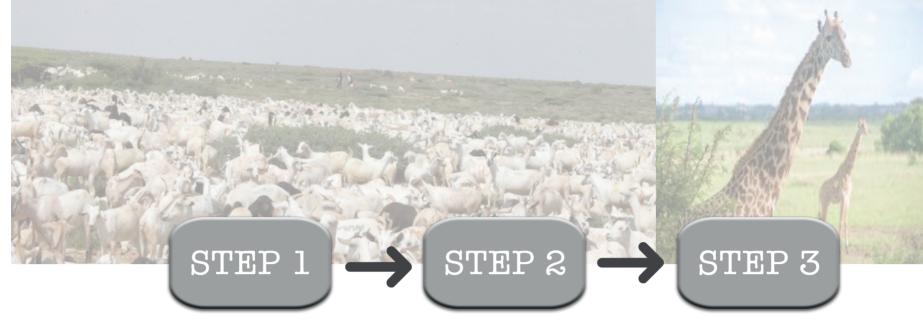
This Toolkit is intended for use primarily by County Government Land Use Planners responsible for preparing County Spatial Plans as well as Consultants who may be contracted to prepare County Spatial Plans by County Governments. It is also an essential reference for: Chief Officers, County Executive Committee Members, Members of County Assemblies, Development Partners, Civil Society Organizations and Development Agencies in the Pastoral Areas among others. The toolkit may also be a reference for students of planning at the universities. Agencies charged with monitoring and overseeing development activities in counties may find the toolkit useful.

HOW TO USE THE TOOLKIT

The Toolkit is an essential reference which is adaptable to the varied situations and circumstances in relation to County Spatial Planning.

The County Planning teams have the liberty to further expound or enhance the substance and content of the stages within the confines of the County Spatial Planning: Monitoring and Oversight Guidelines.

The Toolkit should be used hand in hand with Toolkit I (Pre-Planning, Visioning and Objective Setting) and Toolkit II (Research, Mapping and Situation Analysis). In addition, the Toolkit should be used alongside other advisories issued from time by the National Land Commission including: *County Spatial Planning: Monitoring and Oversight Guidelines*, Exemplar Format of a County Spatial Plan and the annex to the guidelines on *County Spatial Planning in Pastoral Areas*.

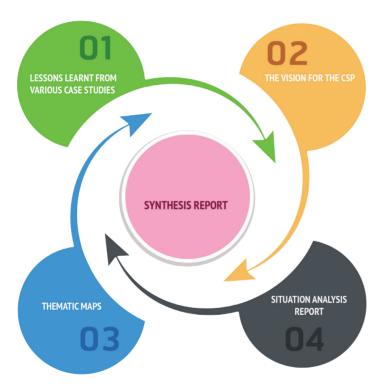


CSP step 5 DEVELOPING SCENARIOS





5.0 INTRODUCTION



Step Five of the county spatial planning involves process developina and presenting possible future development on identified based options challenges and potentials. The development of scenarios informed by knowledge gained in the previous steps, including:

First, the planning team reviews all this information, taking into account the existing resources including those found in the rangelands, existing and anticipated developments, projects and other

developments being undertaken in neighbouring counties, strategic projects of national interest, and the challenges and opportunities that have been identified. This information helps guide the development of scenarios of future development options, ideally with the input from stakeholders.

Three key considerations for developing scenarios in pastoral areas include: measures to protect key rangeland resources; measures to promote the pastoral economy; and coordinating planning for rangelands and pastoral issues with the planning that pertains to other issues and sectors.

The process of developing scenarios involves:

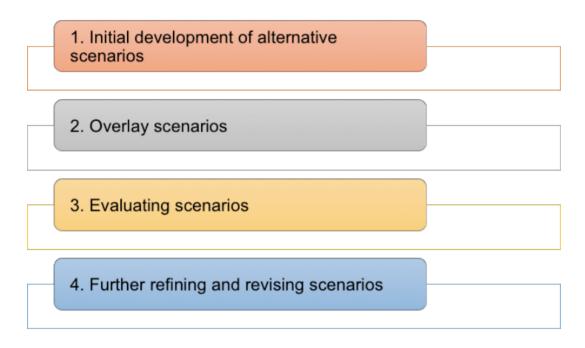


Figure 5.1 Developing Scenario

Purpose: To develop and present possible future development options based on identified challenges and potentials.

Table 5.1 Developing Scenario: Activities, Tasks and Outputs

ACTIVITIES	TASKS	OUTPUTS
5.1 Develop possible plan scenarios	 5.1.1 Develop Nil intervention scenario 5.1.2 Identify elements to consider in plan scenarios for pastoral areas 5.1.3Brainstorming and elaboration of plan scenarios 	Evaluated plan
5.2 Overlay scenarios	5.2.1 Spatial analysis and representation of alternatives	scenarios
5.3 Evaluate scenarios	5.3.1 Cost-benefit analysis5.3.2 Environmental appraisal5.3.3Socio-cultural appraisal5.3.4 Engage with stakeholders on the scenarios	
5.4 Refine and further develop plan scenarios	5.4.1 Revise plan scenarios	



GUIDING QUESTIONS FOR DEVELOPING **TOOL 5.1-A** 'NIL INTERVENTION' SCENARIOS

The first task after the situation analysis is to consider trends and projections and the changes that might be expected in the coming years and decades. The planning team, ideally with the participation of various experts and stakeholders, develops a 'nil intervention' or 'business as usual' scenario.

ANTICIPATED OUTPUT

This activity will result in a qualitative description of the changes, challenges and opportunities related to land and land use can be expected over the next 30 years. Ideally this will include

GUIDING OUESTIONS FOR DEVELOPING NIL INTERVENTION SCENARIOS:

- Are settlements expanding? What effects is this having on pastures and livestock mobility?
- Is crop agriculture expanding? What effects is this having on conflict, on pastures and on livestock mobility?
- Where are new major infrastructure developments (e.g., LAPSSET) anticipated? What effects might these have on pastoral livestock production?
- Where is mining/petroleum extraction taking place and where is it expected to take place? What impacts is it having on rangelands and livestock mobility now and can we project this into the future?
- As land is privatized what trends are being seen in fragmentation of the rangelands? etc.

several maps showing anticipating changes in land use and characteristics such as rangeland condition, bush encroachment and rangeland fragmentation.

As many trends are subject to a high level of uncertainty, the planning team may decide to develop several nil intervention scenarios.

PARTICIPANTS IN THE ACTIVITY

- Members of the planning team
- Representatives of different stakeholder groups
- Other experts in some of the key issues that have been identified in the earlier stages of the spatial planning process

STEPS

STEP 1: Review Important Findings From The Research And Mapping And Situation Analysis Steps.

Pay particular attention to issues for which the earlier steps of the county spatial planning process identified trends and made projections. These may be qualitative findings, quantitative findings, or both.

STEP 2: Consider How The Trends Interact With Each Other.

Trends around different social, economic, ecological or spatial phenomena may influence each other and result in positive (reinforcing) or negative (dampening) feedback. For example, trends toward increasing sedentarization of pastoralists and adopting of crop agriculture may influence trends around loss of key pasture areas, which in turn may influence trends around decreasing livestock productivity, which then comes full circle to push more pastoralists to settle and adopt agriculture, creating positive feedback that reinforces all of those trends.

STEP 3: Deliberate On What Is The Most Likely Outcome Of The Current Trends.

Consider what the outcomes are likely to be 10, 20 and 30 years into the future.

STEP 4: Consider Tipping Points, Feedback Among Different Drivers, And Other Forms Of Uncertainty.

Just because some trend is going a certain direction and at a certain pace now does not mean that the direction and pace of change will stay the same. The feedback among different trends brings uncertainty. Non-linear dynamics can also take place. This is when the factors controlling a trend influence it differently under different conditions or when feedback can cause a trend to slow down, speed up or reach a tipping point that then causes dramatic changes elsewhere in the system. One-off events can also dramatically change a social-ecological system. For example, the development of tarmacked roads can lead to sudden changes related to the growth of settlements, marketing of livestock, and livestock mobility.

As a result, predicting the future is never easy. The best practice is to adopt different assumptions about these trends and develop several nil intervention scenarios. For example, you may develop scenarios projecting high, medium and low levels of fragmentation of rangelands.

STEP 5: Describe the Nil Intervention Scenario(s).

Write a narrative description of the scenario(s). Also developing maps depicting key aspects of the projections at different time intervals: e.g., 10 years, 20 years, and 30 years.

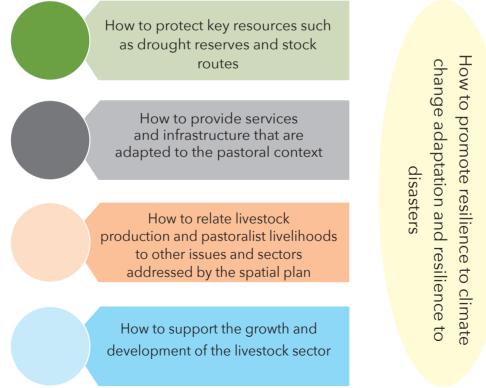
For added detail and deeper analysis, the development of Nil scenarios can involve quantitative analysis of trends and computer simulation modelling.



TOOL 5.1-B: ELEMENTS TO CONSIDER IN PLAN SCENARIOS FOR PASTORALIST AREAS

In **Step Five**, informed by careful analysis and meaningful public participation, alternative plan scenarios are developed. Here, specific attention must be given to addressing the challenges and realizing the potential of pastoral areas and rangeland-based livestock production. Elements to consider for inclusion in plan scenarios can be conceived of as falling into four main areas along with a crosscutting element of promoting climate and disaster resilience as shown in Figure 5.2.

Figure 5-2: Elements to Consider in Plan Scenarios in Pastoral Areas



ELEMENTS TO CONSIDER INCLUDING IN PLAN SCENARIOS

PROTECTION OF KEY RESOURCES

- Protection and improvement of livestock routes. Extension services can be planned along livestock routes as an investment in the extensive livestock production system.
- Developing plans to facilitate unusual movement of livestock, including identifying and mapping emergency migration routes.
- Zoning of drought reserve areas for protection.
- Where local communities have developed grazing plans, zoning their grazing areas as "community-planned grazing areas". This gives the communities formal backing for their efforts.
- Where multiple communities make claims on certain resources such as drought reserves and certain water points, planning for how these will be shared.

COORDINATION WITH OTHER ISSUES AND SECTORS

- Where provision of new infrastructure or other developments should not happen: for example, development of new water points or creation of new settlements in rainy season pasture areas.
- Identifying zones where new developments could synergize with livestockrelated developments:e.g. development of market infrastructure in proximity to new livestock service centres.
- Provision for multiple/integrated land use such as for livestock and crop farming, and related services and infrastructure that might be needed such as storage for crop residues as livestock feeds.

❖ Provision for integrated conservation and livestock grazing activities. E.g., zoning dual-purpose wildlife and grazing areas, dual-purpose livestock-wildlife migration corridors, location of tourist facilities, road development.

PLANNING FOR SERVICES AND INFRASTRUCTURE ADAPTED TO THE PASTORAL CONTEXT

- Planning for the locations for new social infrastructure-schools, medical clinics, Huduma centres, etc.-in locations that can serve a dispersed and mobile population.
- Planning for mobile services, such as clinics.
- Prioritizing the extension of communication and trans-portation infrastructure to remote and underserved areas.
- Using stock routes as a cue for identifying where to locate new services and infrastructure.

SUPPORTING GROWTH AND DEVELOPMENT OF THE LIVESTOCK SECTOR

- Integration of economic planning with spatial planning, including planning for adequate markets and other facilities to encourage off-take of livestock.
- Prioritizing sites for the development of auxiliary services such as cattle dips, holding areas, veterinary stations, and quarantine facilities.
- Zoning certain pasture areas close to markets for livestock fattening/ finishing.
- Many services and infra-structures are best located along livestock routes or close to livestock markets.

CLIMATE CHANGE AND DISASTER MANAGEMENT

Climate change is an emerging global issue that has disrupted climatic and weather patterns on a global scale. This has caused a myriad of changes in the

pastoral landscape that directly affects the lives of people who live in these areas. Global climate changes have triggered erratic weather patterns across the country. The unpredictable weather patterns have led to disasters such as; floods, droughts, famines and low water levels. The situation is further aggravated by the lack of adequate, systematized information for long term predictions and planning to deal with the challenge of climate change catastrophes. To address the challenges of climate change, the CSP should enhance the use of NEMA Guidelines on hazardous and Disaster management.

TOOL 5.1-C: ITERATIVE BRAINSTORMING AND EVALUATION

This tool presents the options based on the scenarios and research projects. It creates an understanding of the issues and their connections to external environment and or how such impacts on the scenarios. This is where different stakeholders guided by the planning team through dialogue reflect on ideas.

Table 5.2: Examples of Scenarios and Projections

Improved Pastoral Production	This scenario is expected to present the planner with the picture of production system that is sustainable	
	and demonstrated growth. Therefore, how will:	
	Secure grazing areas, protect water points?	
	Improve and organized mobility for livestock?	
	Define investment, settlement, industrial areas	
	migratory corridors? etc .	
Management systems	Recognizing that the structures at the Planning Areas	
for land and resources	are functional and capacitated to support effective	
	are ranging and capacitated to support enective	
of rangelands and	management. The following questions will then	
of rangelands and pastoralism		
	management. The following questions will then	
	management. The following questions will then ensure that planning is effective.	

- How will the process support better development of investment and management plans?
- Promote planning and implementation of conservation agendas in non-protected areas?
- How will it balance the concept of conservation management systems established to recognize both livestock and wildlife holding grounds and dispersal areas?
- How will this contribute to mapping and securing wildlife migratory corridors?
- * How will this recognize the role of research and monitoring systems and collaboration at all levels?

Integrated conservation based management

Rangelands support a number of resources including wildlife. The scenario developed must ensure integrated approach that shall be guided by proper land use planning. It should therefore project;

- Improved land cover
- Systems for and rehabilitation of degraded rangelands and other pastoral resources
- Management systems established and functional management by community members and county governments

TOOL 5.2-A: OVERLAY ANALYSIS

An overlay analysis is a process of generating new spatial information for users through processing or analysing spatial data. Overlay analyses are widely applied in domains such as resource management, urban development assessment, land management, agriculture, forestry and animal husbandry, statistics, etc.

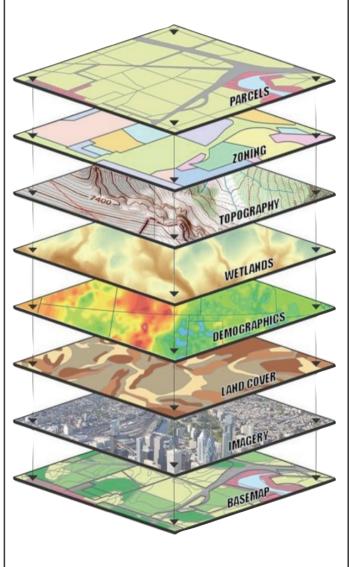
The planning team in this case should present the different and compared scenarios based on the spatial analyses that have been agreed upon and demonstrate implications to planning areas and resources.

Table 5.3 Key Guiding Questions in Some Thematic Areas

QUESTIONS FOR REFLECTION

- √ How is the presentation encouraging economic development and growth in the county?
- √ Is the analysis presenting methods to protect quality of surface and groundwater quality and quantity?
- √ How is the preservation of forestry integrity and achieved/set to be realized?
- ✓ Conservation and protection of reserves and sensitive wildlife habitats
- √ What land use is on top of what soil type?
- √ What parcels are within for example grazing areas, water points etc.?
- √ What are some capital investment areas within what sub-counties?
- √ Where some of the stock routes and or wildlife corridors?
- √ What are some conflict hotspots within the planning areas?

SAMPLE ILLUSTRATION



TOOL 5.3-A: METHODS FOR REVIEW AND EVALUATION OF PROPOSALS

Plan proposals should be appraised and evaluated to assess their desirability and feasibility. The Plan is not a wish-list—careful consideration must be given to whether the proposals are economically and politically realistic and socially and culturally acceptable. The expected benefit of alternative scenarios should be estimated. The possibility of unintended social, economic or environmental impacts must be considered. The question of "Who wins and who loses from the different scenarios?" should be answered. Table 5.4 presents various methods that can be used in evaluating proposals.

Table 5. 4: Suggested Methods for Evaluating Proposals for Plan Scenarios

METHOD	COMMENTS
1. COMPUTER	Computer models can be used to simulate a wide
MODELLING	range of different features of ecosystems, watersheds,
	demography, and various components of the
	economy, as well as land use. Simulations of grazing
	patterns, for instance, can shed light on what impact
	different investments or land use changes could have
	on grazing patterns.

METHOD	COMMENTS	
2. DELPHI METHOD	Experts are asked to provide their informed opinion	
	of the feasibility and desirability of selected scenarios.	
	The opinion of each expert is shared anonymously	
	with all other experts for a second, and sometimes	
	third, round of feedback	
3. PASTORAL	This tool considers proposals from the vantage point	
PRODUCTION IMPACT	of pastoralist livestock production, considering the	
APPRAISAL	potential impact–positive or negative–on livestock	
	mobility, community management of rangelands,	
	rangeland productivity, etc. Tool 5.2-C, below	
	elaborates on this method.	
4. COST-BENEFIT	The important question to ask would be: is the	
ANALYSIS	strategy likely to lead to sufficient benefits to justify	
	the costs in time and other resources?	
	Whichever the scenario the proposal choice, it must	
	be able to demonstrate that pastoral and rangelands	
	production is feasible. Refer to Tool 5.3-B	
5. STAKEHOLDER	At workshops with stakeholders, a short-list of plan	
FEEDBACK AND	scenarios should be presented and explained, and	
EVALUATION	the participants given the opportunity to thoroughly	
WORKSHOPS	consider the strengths and weaknesses of each. The	
	results of the above-mentioned methods can also be	
	presented at the workshops to inform the discussion	

TOOL 5.3-B: COST BENEFIT ANALYSIS

Cost-Benefit Analysis involves adding up the benefits of a course of action, and then comparing these with the costs associated with it. The results of the analysis are often expressed as a payback period - this is the time it takes for benefits to repay costs.

STEPS FOR CONDUCTING COST BENEFIT ANALYSIS

IDENTIFY THE COSTS AND BENEFITS

- ✓ Make a list of all of the costs and benefits associated with the CSP
- ✓ Can you think of any unexpected costs?
- ✓ Are there benefits that you may not initially have anticipated?
- √ Think about the lifetime of the project?
- √ What are the costs and benefits likely to be over time?

ASSIGN A MONETARY VALUE TO THE COSTS

- ✓ Estimate the costs of all the physical resources needed
- ✓ Estimate the cost of the human resource involved
- ✓ Think about as many related costs e.g. Are there any training cost?
- ✓ Think about costs that will continue to be incurred once the CSP is implemented.

ASSIGN A MONETARY VALUE TO THE BENEFITS

- ✓ Predict revenues accurately generated with the implementation of the CSP.
- √ What are the intangible, or soft, benefits of the project?
- √ What is the impact on the environment, residents, or health and safety?

What is the monetary value of that impact?

4. COMPARE COSTS AND BENEFITS

- ✓ Compare the value of the costs to the value of the benefits and use this analysis to decide on preferred scenarios.
- ✓ Calculate the total costs and the total benefits and compare the two values to determine whether the benefits outweigh the costs.
- ✓ Find out how long (payback period) it will take to reach the break-even point
 the point in time at which the benefits have just repaid the costs.
- ✓ Total cost / total revenue (or benefits) = length of time (payback period).

TOOL 5.3-C: PASTORAL PRODUCTION IMPACTAPPRAISAL

In **Step Five** of the county spatial planning process, the planning team works with various stakeholders to develop a range of plan scenarios and plan proposals, only some of which may end up being included in the final CSP. Elements proposed for inclusion in the CSP must be reviewed and evaluated. Some developments may have an adverse impact on pastoral livestock production. For instance, a poorly planned irrigation project may result in the blocking of stock routes and the conversion of key pasture areas that are used by pastoralists as a drought reserve area.

This tool can help the planning team to consider the possible impact of developments in other sectors on pastoral livelihoods and livestock production.

STEPS IN PASTORAL IMPACT APPRAISAL

OVERLAY ANALYSIS

Create layers showing the proposed development (the irrigation project, the new road, the new residential area for expansion of a town, etc.). Then using layers of key rangeland resources derived from earlier steps (see especially Tool 3.1-C and Tool 3.1-D, and Tool 4.2-B), carry out an overlay analysis (see Tool 5.2-A above).

REVIEW AND ANALYSIS

→ This can be done in workshop setting with stakeholders, or by the planning team. If it is to be done by the planning the team, stakeholders and experts

- nevertheless need to be consulted. Explain the nature of the proposed development, then review the findings of the overlay analysis.
- → Consider the potential impact on pastoral livelihoods and livestock production of the proposed intervention. Use the template below. A discussion by the stakeholders of proposed developments can be very helpful.
- → Do a SWOT analysis. Analyze the different Strengths, Weaknesses, Opportunities, and Threats of each of the proposed projects.

The findings of the pastoral production impact appraisal may result in certain proposals being rejected. Alternatively, they may be used to identify ways to mitigate adverse effects for pastoral livestock production. For example, a proposal that involves a major land development might be redesigned to such that corridors through the new development are reserved as stock routes.

Table 5. 5 Worksheet: Pastoral Production Impact Appraisal Checklist

ASSESSMENT QUESTION	ANSWER/COMMENTS
Stock Routes	
✓ Does the proposed development cut	
across any stock routes?	
✓ Will the proposed development block	
any routes permanently?	
Water	
✓ Will the proposed development restrict	
access to any livestock watering points?	

ASSESSMENT QUESTION	ANSWER/COMMENTS
✓ Does the proposed development involve use of water that is also used by livestock? How much water will be used?	
Loss of pastures or other resources	
 ✓ If the proposed development is converting pasture areas to other uses, what categories of pasture (rainy season pasture, dry season pasture, drought reserve pasture) are being converted? ✓ What will this do to the overall balance among pasture types? Does it reduce the "key limiting factor" in livestock production (see Tool 4.2-B)? ✓ Will access to any other resources (e.g. mineral licks) be cut off? 	
Settlement	
 ✓ Is the proposed development likely to attract settlement? ✓ If settlement takes place in an area where there has been little to no settlement before, this may lead to overuse of local pastures. 	



TOOL 5.3-D PLANNING FOR LIVESTOCK WATER POINTS IN THE CSP

One of the factors that undermined most traditional rangeland management practices and resulted in land degradation has been the haphazard development of livestock water points. Water points, especially permanent water points such as boreholes, tend to attract year-round grazing and settlement.

Many pastoral communities manage grazing and the overuse of pastures indirectly through the limitations on access to water. For instance, rainy season pastures are often categorized as rainy season pastures by virtue of their having available water on during the rainy season. When the dry season comes, and water points dry up, herders move to the dry season pastures, and thus the rainy season pasture protected from overgrazing. Creating a new water point in a rainy season grazing area often disturbs the grazing patterns and resource management systems.

Output of this tool: A map showing areas in the county prioritized for development of livestock water points and areas where development of water points should not happen.

This tool can be used in conjunction with participatory mapping and GIS (see Tools 3.1-C and 3.1-D).

STEP ONE: IDENTIFY THE LOCATIONS OF EXISTING WATER POINTS

If a pre-existing GIS data layer of water points is not already available, participatory mapping can help to obtain this information. Ideally, you should have information on when each water point is used—only in dry seasons, only

during droughts, only in rainy seasons, all year round, etc.

STEP TWO: OBTAIN INFORMATION ON LAND TENURE, LAND USE AND COMMUNITY LAND USE PLANS

In the Research and Mapping Step of the county spatial planning process, the planning team will have assembled maps and GIS data layers on a wide range of features. For the prioritization of water point development, layers that are particularly relevant include layers showing parks, reserves and other protected areas; conflict hotspots; existing land use patterns; and community land use plans. Assemble these layers. Where communities have zoned their land—for example rainy season, dry season and drought pasture zones—having this information available will very be helpful.

STEP THREE: CONSULT WITH COMMUNITY MEMBERS ON THEIR EXPERIENCES OF WATER-PASTURE INTERACTIONS.

This includes their seasonal use of water and pasture, challenges faced and trends. Ask their opinion of where they would prioritize the development of new water points and, importantly, where they would not want new water points developed, and their reasoning for this prioritization. This consultation may happen during participatory mapping exercises and/or during the Second Stakeholders Meeting(s) (see Tool 4.3-C).

STEP FOUR: BRING ALL THE INFORMATION FROM THE ABOVE-MENTIONED STEPS TOGETHER TO PRODUCE A MAP SHOWING PRIORITIZED AREAS FOR DEVELOPMENT OF WATER POINTS.

The map should show:

- √ High priority areas for water point development (deep green)
- √ Low priority areas for water point development (greenish-yellow)
- √ Areas of heightened concern (orange)
- ✓ Restricted water point development (red).

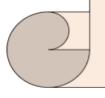
NOTES ON STEPS TOWARDS THE OUTPUT DELIVERY

This can be done semi-qualitatively by considering the information referred to above, and involving experts to make a judgement about different pasture areas within each Planning Area. Alternatively, a simple GIS-based scoring system can be developed. In this kind of scoring system, each pixel on a map can be given a positive score for factors that favour development of water points (e.g., pastures that are underutilized because of shortage of water), and a negative score for factors that oppose development of new water points (e.g., rainy season pastures). Key considerations for this prioritization include the following:

- Areas inside of parks, other protected areas, and sensitive ecosystems: strong negative score.
- Areas within 10km. of parks, other protected areas, and sensitive ecosystems: moderate negative score.
- Rainy season pastures: moderate negative score.
- Conflict hotspots: moderate negative score.
- Drought reserve pastures where current water availability is insufficient: moderate positive score.
- Areas identified for livestock fattening/finishing and livestock market holding grounds: moderate positive score.
- Pasture areas that are underutilized because of insufficient water: strong positive score.

A total pixel is calculated for each pixel to then produce the map. Negative scores result in a pixel being more red; positive scores result in it being more green.

The outputs of this tool can also inform the zoning (see Tool 6.2-A), as some land use zoning categories can include regulations limiting the development of new water points.



TOOL 5.4-A: THE THIRD STAKEHOLDERS MEETING(S)



After the plan proposals have been appraised, stakeholders are given an opportunity to provide feedback and suggestions and negotiate aspects of the CSP.

In the County Spatial Planning Monitoring and Oversight Guidelines,

this is described as the "Third Stakeholders Meeting". To ensure meaningful and broad public participation, this will usually require a series of forums or workshops. The stakeholders meetings can be a series of such meetings depending on the clustering and the planning areas and the proposal developed.

There may, for example, be a stakeholder meeting in each of the Planning Areas and then one high level stakeholder's forum for the entire county.

ANTICIPATED OUTPUTS

The outputs of the third stakeholder meeting(s) include:



PARTICIPANTS IN THE ACTIVITY

The meetings at this stage are the channel venue for stakeholder input to what is being proposed for the CSP. As such, it is important that all stakeholder groups in the area be represented. Types of community stakeholders to be represented at the meeting(s) include (but are not limited to) the following:

Table 5.6 Stakeholder Categories

A). COMMUNITY LEVEL STAKEHOLDER	B). MACRO-LEVEL INSTITUTIONAL		
CATEGORIES	CATEGORIES		
Representatives of community natural	Conservation interests		
resource management organizations	Non-governmental organizations		
(e.g., grazing committees, group ranches,	(particularly those working on		
community conservancies, WRUAs, etc.)	land, farming, and natural resource		
Traditional leaders/elders			
Women's organizations	management issues)		
Peace committees	Business interests/the private sector		
Youth	Experts in fields relevant to the plan		
Land owners (private, community, and	proposals.		
government).			

In identifying participants, effort should be made to ensure that the diversity of different stakeholder groups is represented: different ethnic groups, different livelihood groups (pastoralists, agro- pastoralists, farmers and fisher-folk), different wealth levels, and both genders.

STEPS IN CONDUCTING THE THIRD STAKEHOLDER MEETING(S)

Figure 5.3 Steps in conducting the Third Stakeholder Meeting



1: Review Key Findings Of The Research, Mapping And Situation Analysis Stages.

Important aspects of the findings from the Research and Mapping and Situation Analysis steps of the county spatial planning processes should be summarized, highlighting challenges and opportunities. Part of this presentation will take the forms of maps. One important dimension to emphasize is conflict including the location of conflict hotspots.

2: Review The Vision For The CSP

Normally many of the individuals in the workshop will have participated in the development of the vision for the CSP. The participants should be reminded of key elements of the vision.

3: Presentation Of The Plan Proposals.

This includes the results of the overlay analysis and findings from the appraisals of the proposals, and describing how the proposals address key challenges and opportunities. Where specific zoning is proposed, the regulations that are expected to apply to each zoning category should be explained.

4: Questions, Discussion And Feedback

Allow participants to ask questions and give reactions to the proposals.

5: Ranking Of Land Use Alternatives

Where there are competing alternative proposals for the same pieces of land, ask participants to rank their preference for the various land use alternatives (LUAs).

- ✓ Describe the alternative proposals.
- ✓ Ask each participant to rank each LUA with a "1" for the most preferred, "2" for the second most preferred, etc. If the workshop is very large, you choose to divide participants into stakeholder groups and have each group agree upon their ranking.
- ✓ Calculate the average ranking for each LUA.
- ✓ Invite participants to explain their reasons for the ranking of different LUAs. *Table 5.7 Example LUA Ranking*

LUA	PARTICIPANT 1	PARTICIPANT 2	PARTICIPANT 3	PARTICIPANT 4	PARTICIPANT 5	PARTICIPANT 6	PARTICIPANT 7	PARTICIPANT 8	AVG.
LUA 1	2	3	2	1	2	1	3	2	2
LUA 2	1	1	1	2	1	4	1	1	1.5
LUA 3	4	4	3	3	4	2	4	4	3.5
LUA 4	3	2	4	4	3	3	2	3	3

In this example, LUA2 is the most preferred land use and LUA3 is the least preferred. This does not automatically imply that LUA2 should be chosen. Some stakeholder groups may be seriously affected by some change in land use. Inequalities and power asymmetries among stakeholders must be considered and thus there is a need for negotiated dimension the selection of land use priorities

6: Discussion And Negotiation

Lead a general discussion about the proposals, pre-existing conflicts and other challenges, and opportunities. Issues to highlight may include areas that are prone to conflicts, and areas where resources are shared amongst multiple groups. Participants can be asked if plan proposals are likely to alleviate or worsen conflicts and whether proposed elements such as stock route designation and zoning of shared resource areas such as county drought reserves appear feasible and desirable.

In cases where there are shared resources, the method of sharing and rules

to guide how the land and landbased resources will and will not be used can be negotiated amongst stakeholders and between stakeholders and country government. Written agreements can be drafted, and the details then incorporated into the final CSP.

7: Final Round Of Feedback On Plan Proposals

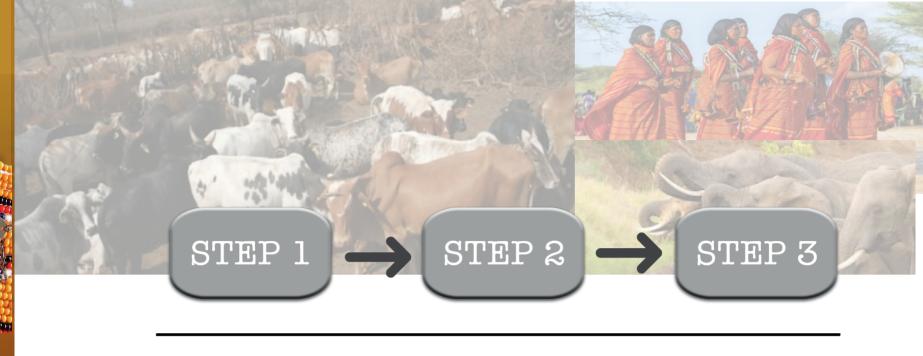
Participants are given another opportunity to give any comments and recommenda tions on the plan proposals.

COUNTY SPATIAL PLANNING AS A NEGOTIATED PROCESS

Planning is not merely a technical exercise; negotiation is also part of the planning process. And the purpose of the third stakeholders meeting(s) is not merely to present the proposed CSP to stakeholders, but to ignite the active involvement of the process that culminates in a consensual pact or agreement.

The county spatial planning process facilitates dialogue and negotiation among different stakeholder groups and between stakeholders and the county government. The final CSP, then, documents agreements reached about the use, sharing, and management of land and land-based resources.





CSP step 6 1 FORMULATION OF PLAN PROPOSALS





6.0 INTRO**DUCTION**

Step Six of the county spatial planning process involves selecting from among the proposed scenarios to develop a complete and comprehensive County Spatial Plan. This is the culmination of the whole process of CSP preparation, from pre-planning to development of scenarios. At this stage, a plan is developed to help realize the agreed and negotiated vision, taking account

IMPORTANT COMPONENTS OF THE FINAL CSP:

- Policies, strategies and measures
- Action plans
- Implementation matrix
- Capital Investment Plan (CIP)
- Monitoring and evaluation framework

of the detailed analysis that has been done and the aspirations of residents of the county.

Purpose: To develop strategies, policies and measures to achieve the stated vision and plan objectives.

Table 6.1 Pre-Planning Development Scenarios

ACTIVITIES	TASKS	OUTPUTS
6.1 Develop preferred plan proposal	6.1.1 Select plan proposals for inclusion in CSP	Preferred plan proposal
6.2 Develop strategies, policies and measures to operationalize the preferred plan proposal	 6.2.1 Develop zoning categories relevant to rangelands and pastoralism 6.2.2 Develop strategies, policies and frameworks for protecting key rangeland resources 6.2.3 Develop strategies, policies and frameworks to support growth and development of the pastoral livestock sector 	Draft CSP GIS Database
6.3 Representing desired spatial structure	6.3.1 Visualize the strategies, policies and measures in the form of maps showing the desired spatial structure	
6.4 Develop an implementation plan	6.4.1 Develop an implementation framework6.4.2 Develop a capital investment plan	Implementation framework CIP

TOOL 6.2-A: ELEMENTS FOR THE PREFERRED LAND USE ZONING FRAMEWORK

Zoning is a development control tool that is useful in controlling the physical development of land and the kinds of uses to which each individual property may be put. The county spatial plan will be able to delineate such zones to restrict and regulate the development growth.

Various kinds of zones are possible—here we list possible zoning categories that are relevant to rangelands and livestock production in rangeland areas.

Table 6.2: Suggested Land Use Zones and Associated Strategies and Measures

LAND USE	EXPLANATION	ASSOCIATED STRATEGIES
ZONE		AND MEASURES
Community-	Community Land which	Requirement that settlement,
Planning	communities have	cultivation, and infrastructure
Grazing Area	developed rules and plans	development conform to
	around grazing.	community plans.
Drought	An area zoned for special	Restrictions on settlement and
Reserve	controls on grazing to be	infrastructure development.
	used during droughts	Restric¬tions on grazing
		outside of declared droughts.

LAND USE ZONE	EXPLANATION	ASSOCIATED STRATEGIES AND MEASURES
Shared Grazing	Special pasture areas	Restrictions on settlement and
Areas	designated as shared	infrastructure development:
Aleas		'
	among multiple	e.g., requirement for
	communities. This would	consultation and approval
	include inter-community	by all neighbouring/sharing
	drought reserve pastures,	communities.
	including pastures accessed	
	by herders across county	
	boundaries.	
Stock Routes	Areas designated as	Restrictions on settlement and
	migration corridors,	infrastructure development
	protected from use for	inside of the stock routes.
	cultivation or for other	Prioritization for development
	developments other than	of water infrastructure, shared
	approved livestock-related	grazing areas, and veterinary
	services.	facilities adjacent to stock
		routes.
Agro-pastoral	Areas designated as being	As with community planned
Areas	available for either farming	grazing area, but cultivation
	or grazing.	allowed.

LAND USE ZONE	EXPLANATION	ASSOCIATED STRATEGIES AND MEASURES
Fodder	Areas designated for the	Restrictions on settlement,
Production Area	development of fodder	cultivation or other conversion
	production.	outside of use for fodder
		production. Prioritization of
		water development.
Livestock	Areas prioritized for	Targeting of new livestock-
Growth Zone	development of the	related services and
	livestock economy,	infrastructure in the zone.
	including livestock markets,	
	holding pastures near to	
	markets or abattoirs, and	
	livestock services such as	
	dipping stations.	
Wildlife-	Areas designated for	Restrictions on settlement.
Livestock	use both for wildlife	
Multiple Use	conservation and for grazing	
Zone	by livestock.	
Ecosystem	Areas of critical importance	Policies to restrict human
protection and	for protection of wildlife and	activities
conservation	fragile ecosystems	
zone		



TOOL 6.3-A REPRESENTING THE DESIRED SPATIAL STRUCTURE

The CSP must be represented visually. There will be a series of thematic/sectoral maps depicting thematic proposals. These maps shall be integrated into a desired spatial structure for the county. The structure must be accompanied by text outlining the development policies, strategies and measures and an implementation matrix detailing the sectors, issue, objective, project, location, action actor, cost and time frame the proposed projects, location

The rangeland and pastoral areas need to be clearly captured in developing the desired CSP structure. It should include a spatial depiction of the desired spatial structure for rangelands and livestock production in its own thematic proposal.



TOOL 6.4-A: DEVELOPING AN IMPLEMENTATION FRAMEWORK

For the successful implementation of the County Spatial Plan, the county needs to deliberately come up with an integrated development framework that takes into account all the proposed projects, policies and strategies.

The framework will be represented in an implementation matrix that will outline how exactly the county wants to achieve the county spatial plan and who will act on the projects.

ACTIVITY SCHEDULING

The plan proposals will require prioritization and sequencing while taking into account those programmes that must be implemented first to facilitate others. The scheduling of the activities will also take cognizance of the flow of financial resources. The sequencing may follow the following pattern:

a) Quick-wins

These are projects/programmes to be achieved immediately, with high visibility and impact using minimal resources to trigger the confidence/trust of the executive in the eyes of the citizens and stakeholders.

b) Short term Activities

These are projects/programmes to be achieved within a period of 1-2 years.

c) Medium term activities

These are project/programmes to be achieved within a period of 3-5 years.

d) Long Term activities

These are project/programmes to be achieved within a period of 5-10 years.

e) Catalyst Projects

The CSP should include a number of key projects which are central to the delivery of the Plan and that will act as a catalyst for positive change in the County.

TOOL 6.4-B ELEMENTS TO CONSIDER FOR THE CIP

An important aspect of the County Spatial Plan that helps move it toward implementation is the Capital Investment Plan (CIP). The CIP should outline all the capital-intensive projects proposed in the plan, costs of the projects, timeframe and actors responsible for implementation.

DEVELOPING A CAPITAL INVESTMENT PLAN (CIP)

Overview of the CIP

The marginalized communities in pastoral areas necessitate the need for the pastoral counties to invest in infrastructure and other social improvement assets that enhance the economic and social development of pastoral communities. The CIP includes investments from the County Governments, National Government, National agencies, institutions established for the provision of public services, enterprises set and owned by the County Governments for the provision of public utility services, private sector through Public Private Partnership (PPP) and NGOs.

County's Financial Capacity

A key step in developing a CIP is the evaluation a county's current financial capacity. It helps determine how the proposed expenditures in the CIP compare and relate to the county's budget. It further shows how the various projects and programs within the county relates with one another in developing the CIP.

Funding Strategy

Funding strategies should be developed by way of identification and prioritization of needed projects. Therefore, a creative partnership and funding strategy is needed to tap resources from the following among others:

- √ County governments
- ✓ National Government
- √ Development Partners, donors and private sector
- ✓ Public Private Partnerships
- √ Foreign direct investments
- √ Diaspora remittances
- √ Local Community

Costing CIP in rangelands and pastoral areas.

CIPs are large investment initiatives undertaken within the context of the CSP. CIPs should outline the costing system for such investments. Therefore, it is important to consider the following relevant examples for costing:

- Dams, earth pans, and boreholes (carefully located to not disrupt grazing patterns)
- ✓ Sand dams
- ✓ Land rehabilitation works (e.g., half-moons, bunds, terraces, etc.)
- √ Abattoirs
- √ Livestock market facilities
- ✓ Irrigation schemes for fodder production
- ✓ Checkpoints/night stations for herders along stock routes.



County's financial capacity

Funding strategy

Costing **C.I.P** in pastoral areas



REFERENCES

- National Land Commission, Directorate of Land Use Planning (2015), County Spatial Planning:
 Monitoring and Oversight Guidelines; Nairobi.
- 2. Republic of Kenya, The Constitution of Kenya, 2010.
- 3. Republic of Kenya, The County Governments Act, 2012.
- 4. Ministry of Lands, Sessional Paper No.3 of 2009 on National Land Policy.
- 5. Sanginga, P. and Chitsike, C., (2005). The power of visioning. A handbook for facilitating the development of community action plan. Enabling Rural Innovation Guide 1. International Centre for Topical Agriculture: Kampala, Uganda
- 6. Steven Ames (2006) what is Community Visioning? American Planning Association.
- 7. Steven Ames (2006), **Planning and Urban Design Standards,** American Planning Association, JR Wiley & Sons.
- 8. Susan Clark and Delia Clark; **Community Visioning: An Organizers Guide for Participatory Planning:** Quebec Labrador Foundation CS Mott Foundation Environmental Partnership for Central Europe



PHOTO CREDITS

Front cover Kenya Pastoralist Women Child- Northprovince-USAID

Page 4 Maasai courtesy Kathleen Godfrey

Page 8 Courtesy hivi sasa .com, camel mandera

Page 12 Maina waruru- ILRI maasai livestock

Page 16 ISIOLO pastoralists

Page 32 Cattle-at-the-Marigat-Livestock-Market-in-Baringo

Page 46 Boran - source from IUCN













