



for landscapes & livelihoods

# RANGELAND RESTORATION

annex 1



**UMZIMVUBU  
CATCHMENT  
PARTNERSHIP  
PROGRAMME**

## ANNEX 1: LANDSCAPES & LIVELIHOODS: TOOLKIT REFERENCE MATRIX for COMMUNAL RANGELAND RESTORATION MODEL

TOOLS, METHODOLOGIES AND REFERENCES can be found listed in ANNEX 2 per component, accessed from the electronic Toolkit Compendium

Streams + Components	Context for UCPP	Strategic Considerations + Lessons For Sharing	Tools + Tested Micro-Methodologies	Sequenced Steps	Incentives	Monitoring	Resources + References
<b>STREAM 1: SOCIAL, INSTITUTIONAL AND MARKETING (enabling environment)</b>							
<p><b>COMPONENT 1:</b></p> <p>STAKEHOLDER ENGAGEMENT</p> <p>COMMUNITY MOBILISING + CAPACITY BUILDING</p> <ul style="list-style-type: none"> <li>including livestock owners</li> </ul>	<ul style="list-style-type: none"> <li>Traditional authorities have custodianship of communal lands</li> <li>Commercial farming covers approximately 15% of the landscape</li> <li>ECPTA Protected Area in the area</li> <li>Municipal + departmental officers have mandates but not much happening</li> <li>UCPP exists to unite stakeholders</li> <li>Rural communities with varying educational and organisational levels</li> <li>People generally aware of wattle threat from WfW presence</li> <li>Livestock owners have varying numbers of stock</li> <li>Some owners pay herders, others share paid herder</li> <li>Livestock co- operatives largely (? Associations?)</li> </ul>	<ul style="list-style-type: none"> <li>Involve both traditional and elected leadership, noting both want recognition + ownership; needs good diplomatic skills</li> <li>Build on existing institutions + identify local initiatives to build on</li> <li>Ensure stakeholders continually involved in all activities to secure support: can be a foundation for resources + sustainability. Can help with reducing staff turnover to keep communication flowing</li> <li>Pre-existing relationships help establish trust, crucial because maintain livelihoods. Livestock = identity</li> <li>Areas where tenure of user-boundaries easier to organise</li> <li>Involve livestock owners to build on historic grazing area boundaries and systems which they know, reviving 'maboella' – ask questions, understand sources of issues and challenges, build on models</li> <li>Role of women can be enhanced through involvement throughout whole community and process</li> </ul>	<ul style="list-style-type: none"> <li>UCPP MoU template</li> <li>Awareness events</li> <li>Case study of effectiveness as communication tool</li> <li>UCPP website</li> <li>Vubuzela newspaper</li> <li>Mobilisation toolbox from Motseng and HLLM lessons</li> <li>Inter-community exchange learnings and site visits</li> </ul>	<ol style="list-style-type: none"> <li>Identify stakeholders <ul style="list-style-type: none"> <li>Roles and interests</li> <li>Contributions + benefits</li> <li>IAPs</li> </ul> </li> <li>Identify available resources <ul style="list-style-type: none"> <li>Financial</li> <li>Human</li> <li>Logistical</li> </ul> </li> <li>Mobilisation e.g. livestock owners, capacity building according to identified needs</li> <li>Explore, prioritise and refine objectives and activities <ul style="list-style-type: none"> <li>Context and scope</li> <li>Establish, joint goals and milestones</li> <li>Continuous engagement</li> </ul> </li> <li>Acting together</li> <li>Detailed planning and implementation</li> <li>Refine and upscale <ul style="list-style-type: none"> <li>Improve pathways to achieve sustainability</li> <li>Value addition</li> </ul> </li> </ol>		<ul style="list-style-type: none"> <li>Identify synergies with all stakeholders</li> <li>Focus group discussion</li> <li>Household situation analysis</li> </ul>	<p>Reference &amp; Facilitator training materials:</p> <ul style="list-style-type: none"> <li>Participatory planning for improved rangeland planning, Motseng Community, September 2012 (ERS)</li> <li>Participatory Community Engagement Process: Restoration of degraded grazing land and building livestock enterprises through improved rangeland custodianship (ERS)</li> <li>Problem tree poster and session steps</li> <li>HLLM modules by Savory Institute</li> </ul>

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<b>STREAM 1: SOCIAL, INSTITUTIONAL AND MARKETING (enabling environment)</b>							
<p><b>COMPONENT 2:</b></p> <p>MARKET ACCESS</p> <ul style="list-style-type: none"> <li>• ENABLING INCENTIVE</li> <li>• HEALTH PERCEPTIONS</li> <li>• CONDITION &amp; GRADING</li> </ul>	<ul style="list-style-type: none"> <li>• Local and limited sales</li> <li>• Mainly for traditional purposes (lobola, funerals, amasiko)</li> <li>• Speculative buying of stock with lower prices</li> <li>• Transport on poor roads, high distances</li> </ul>	<ul style="list-style-type: none"> <li>• People DO WANT to sell into formal market, given understanding of choices</li> <li>• Buyers do want to buy rural stock</li> <li>• Branding assists stock theft control: SAPS can track and return stolen animals if branded</li> <li>• Animal grade is important</li> <li>• Marketing angle</li> </ul>	<ul style="list-style-type: none"> <li>• Tracking treatment of animals (linked with component 2.3, livestock health)</li> <li>• Facilitating auctions and transport provided by buyers</li> <li>• Facilitating 1-on-1 sales</li> <li>• Facilitating branding</li> </ul>	<ol style="list-style-type: none"> <li>1. Identification of buyers and sellers for auction</li> <li>2. Find out how existing sellers want to sell (prices)</li> <li>3. Get at least three buyers with dates for the auction</li> <li>4. Register buyers <ul style="list-style-type: none"> <li>• Copies of their IDs</li> <li>• Residential addresses</li> <li>• Capacity of the buyer (private or business)</li> </ul> </li> <li>5. Find the demand for animals</li> <li>6. There should be at least 50 animals to buy to make sale feasible</li> <li>7. Confirm buyers and sellers</li> <li>8. Correct paperwork for sellers <ul style="list-style-type: none"> <li>• Copy of ID</li> <li>• Certificate of ownership</li> </ul> </li> <li>9. Check whether animals received vaccination</li> </ol>	<ul style="list-style-type: none"> <li>• Cash returns from improved livestock productivity</li> </ul>	<ol style="list-style-type: none"> <li>1. Record-keeping (livestock &amp; sales)</li> <li>2. Animal-loading (48hrs)</li> <li>3. Payment procedure</li> <li>4. Follow-up surveys <ul style="list-style-type: none"> <li>• Track households selling and prices received</li> <li>• Marketing costs for owners and buyers, and best timing of auctions</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Equipment</li> <li>• Mobile livestock handling</li> <li>• Scale</li> <li>• Recording tools</li> <li>• Register of stock owners and buyers</li> <li>• Template of the receipt at the auction</li> <li>• Template of household earnings</li> <li>• Templates of agreements</li> <li>• Templates for reflection and/or lessons learned</li> <li>• Certificates of ownership</li> <li>• Vendors' list/sales sheet</li> <li>• Previous record of sales</li> </ul>

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<b>STREAM 1: SOCIAL, INSTITUTIONAL AND MARKETING (enabling environment)</b>							
<b>COMPONENT 3:</b>  ESTABLISHING AGREEMENTS	<ul style="list-style-type: none"> <li>• CI has globally used agreement approach for accountability</li> <li>• New tool never used to define obligations in region before, but emerging as successful</li> </ul>	<ul style="list-style-type: none"> <li>• Can mobilise volunteers</li> <li>• Formally clarifies expectations</li> <li>• Not really consulted until times of trouble</li> <li>• Timeframe 6 months too short to implement properly</li> <li>• Need to have agreements for quiet season as well???</li> <li>• Short term agreements help to build trust into longer term goals + allow for learning to be integrated into next agreement</li> <li>• Embed conservation agreements into greater community land resolutions contracts Ensures long term commitment – people don't take all the benefits at once</li> <li>• Stage incentives with conservation actions</li> </ul>	<ul style="list-style-type: none"> <li>• CSP agreement manual</li> <li>• Existing agreements from different communities at different stages + situations (Motseng year 1, Letlapeng year 1, Motseng year 2, etc)</li> </ul>	<ol style="list-style-type: none"> <li>1. Stakeholder identification, consultation and negotiation</li> <li>2. Identifying needs to set the main goal</li> <li>3. Pilot agreement to test effectiveness</li> <li>4. Reflect on the effectiveness of the pilot agreement</li> <li>5. Individual signing of the contracts, then progress to group signing</li> </ol>	<ul style="list-style-type: none"> <li>• Securing benefit flows through formalised contractual respective responsibilities and rights</li> </ul>	<ul style="list-style-type: none"> <li>• Internal enforcement of rules</li> </ul>	Reference: <ul style="list-style-type: none"> <li>• CSP agreement manual</li> <li>• Reference &amp; adaptive use:</li> <li>• Existing agreements from different communities at different stages + situations (Motseng year 1, Letlapeng year 1, Motseng year 2, etc)</li> <li>• Draft Conservation + Agriculture Agreement Biodiversity + Red Meat Cooperative (BRMC)</li> </ul>

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<b>STREAM 1: SOCIAL, INSTITUTIONAL AND MARKETING (enabling environment)</b>							
<b>COMPONENT 4</b>  SUSTAINABILITY + RELIANCE	<ul style="list-style-type: none"> <li>• Currently livestock owners pay some herders; many earning EPWP wattle wages plus livestock sale income</li> <li>• Have some basic financial management + training (savings groups)</li> <li>• Access to Lesotho herders who are cheap labour, competition for trained herders</li> <li>• State vet services are free but inconsistent + thus unreliable, sometimes too late</li> <li>• Some owners willing to pay for private vets + treatments</li> <li>• Sustainability requires independence from paid wattle clearing wages</li> </ul>	<ul style="list-style-type: none"> <li>• Approach livestock and cropland owners to mobilise volunteers + ensure better foundation for sustainability + resilience as they will get long term benefit from rangeland restoration + improved livestock and crop sales</li> <li>• In 2 years livestock sales realised R1,3 million vs wages R1,8 million. Should transition over time</li> <li>• Start transition as part of sustainable strategy – during the implementation phase</li> <li>• Partnerships can help build resilience to institutional + implementing challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Analysis of wages vs livestock sale income</li> <li>• Save Act group process</li> <li>• Paravet training course</li> <li>• Training tools / agents</li> </ul>	<ol style="list-style-type: none"> <li>1. Training and internalising               <ol style="list-style-type: none"> <li>a) staff management</li> <li>b) legislation</li> <li>c) record-keeping</li> </ol> </li> <li>2. Selling the model (to donors)</li> <li>3. Building business sustainability (could have added costs for the sellers)</li> <li>4. They have the option of market accessibility</li> </ol>	<ul style="list-style-type: none"> <li>• Sustainable benefit flows to livestock owners + communities through increased sustainable production, market access + improved social institutional resilience</li> </ul>	<ul style="list-style-type: none"> <li>• Internal enforcement of rules</li> </ul>	Reference: <ul style="list-style-type: none"> <li>• CSP agreement manual</li> <li>• Reference &amp; adaptive use:               <ul style="list-style-type: none"> <li>• Existing agreements from different communities at different stages + situations (Motseng year 1, Letlapeng year 1, Motseng year 2, etc)</li> <li>• Draft Conservation + Agriculture Agreement Biodiversity + Red Meat Cooperative (BRMC)</li> </ul> </li> </ul>

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<b>STREAM 2: LANDSCAPE RESTORATION AND PRODUCTION</b> (active intervention & facilitation)							
<p><b>COMPONENT 5</b></p> <p>RANGELAND REHABILITATION</p> <ul style="list-style-type: none"> <li>• ROTATIONAL RESTING OF GRAZING AREAS</li> <li>• POST ALIEN CLEARING RESTORATION</li> <li>• PATHS AND DONGAS RECLAMATION</li> </ul>	<ul style="list-style-type: none"> <li>• Mainly communal lands in upper catchment with varying levels of degradation (zones of heavy and lower utilisation)</li> <li>• Extensive alien infestation reducing range capacity</li> <li>• Governance mainly under traditional structures with communal tenure</li> </ul>	<ul style="list-style-type: none"> <li>• Pick your battle zones in terms of most likely to restore and maintain</li> <li>• Build on traditional practice and realisation of need to maintain rangeland through appropriate incentives</li> <li>• Motivate resting through providing winter feed source and/or access to supplements</li> <li>• Reduce livestock movement (lower impact on paths, village zone and animal energy reserves)</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate clearing techniques to allow grassland recovery</li> <li>• Solar-powered night kraaling system to kick-start recovery through 'bioturbation'</li> <li>• A frame contour tool</li> <li>• Worksite management process (adapted for field teams)</li> <li>• GIS and GPS software &amp; skills</li> <li>• Link with herding- based grass monitoring</li> <li>• Readings and references on clearing rehabilitation and rangeland restoration</li> </ul>	<ol style="list-style-type: none"> <li>1. Agreement in principle with community: inextricably linked with mobilisation, clearing and rotational rest grazing plans and herding</li> <li>2. Resource mapping to identify target zones and ranking for treatment as layer over clearing and grazing plans</li> <li>3. Different rehabilitation treatments for different basal conditions: <ul style="list-style-type: none"> <li>• bare cleared areas: use night kraaling as kickstart, linked with herding plan and hand pulling seedlings for follow up maintenance; also re-seeding and exclusion</li> <li>• degraded grassland: appropriate rest and graze within rotational herding plan</li> <li>• mechanical packing for gulleys and small dongas</li> </ul> </li> <li>4. Link rehabilitation to herding according to grass, status and good science / best practice</li> </ol>	<ul style="list-style-type: none"> <li>• Improved livestock productivity and returns</li> <li>• Collective kraaling to control wattle regrowth and land degradation</li> </ul>	<ul style="list-style-type: none"> <li>• Project effectiveness: Mapping for baseline &amp; progress</li> <li>• Cleared hectares with rates</li> <li>• Rehab status &amp; change e.g. % of ground cover in post- cleared areas</li> <li>• Ecosystem effectiveness:</li> <li>• Annual veld baseline transects</li> <li>• Quarterly EGS toolkit</li> <li>• Seasonal exclusion cages</li> <li>• Link with herding scientific monitoring</li> </ul>	<p>General + Field Reference:</p> <ul style="list-style-type: none"> <li>• Induction manual for alien clearing aimed at basal cover rehabilitation</li> <li>• Best practice clearing method cards and photos</li> <li>• Posters e.g. livestock + livelihoods</li> <li>• Bioturbation posters (GSSA &amp; A3)</li> <li>• Rotational resting (GSSA: R.L-O SANBI; HLLM toolkit)</li> </ul>

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<p><b>COMPONENT 6</b></p> <p>ECORANGERS &amp; ROTATIONAL REST</p> <ul style="list-style-type: none"> <li>• TRAINING</li> <li>• ECOSYSTEM, LIVESTOCK + HERDING SKILL SETS</li> <li>• CAREERS FOR ECORANGERS</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional herding custom still exists</li> <li>• Practices have changed in response to different factors: fire, wattle encroachment, stock theft</li> </ul>	<ul style="list-style-type: none"> <li>• Challenge to change traditional herding practices</li> <li>• Cattle become conditioned to route</li> <li>• Facilitating access to inputs is an incentive for buy-in to herding programme</li> </ul>	<ul style="list-style-type: none"> <li>• Rotational grazing + resting plan (linked with rangeland rehab)</li> <li>• recruitment, training + employment of Ecorangers</li> <li>• Night kraaling using electric fence</li> <li>• Tent, torches etc for night watch</li> <li>• Ecorangers working with individual herders</li> <li>• Herding skills: when to move animals</li> </ul>	<ol style="list-style-type: none"> <li>1. Recruit, select, train, job descriptions for Ecorangers</li> <li>2. Engage community livestock owners</li> <li>3. Identify grazing blocks and herding system</li> <li>4. Communicate start date or bring livestock</li> <li>5. Daily record keeping of animal count</li> </ol>	<ul style="list-style-type: none"> <li>• Access to inputs &amp; services (vet medicines, paravet services, nutritional supplements, marketing)</li> <li>• Reduced stock theft and predation</li> </ul>	<ul style="list-style-type: none"> <li>• Track and monitor compliance and perceptions of livestock owners</li> <li>• Grass availability (boot-height)</li> <li>• Body condition score</li> </ul>	<p>Operational costs:</p> <ul style="list-style-type: none"> <li>• Airtime provision for rangers</li> <li>General + field reference</li> <li>• PPT illustrating rotational grazing</li> <li>• Grass book+ alien species book</li> <li>Field recording</li> <li>• Herding template for record- keeping</li> </ul>
<p><b>COMPONENT 7</b></p> <p>LIVESTOCK HEALTH</p> <ul style="list-style-type: none"> <li>• NUTRITION</li> <li>• HEALTHCARE: PARA-VET + INOCULATIONS</li> </ul>	<ul style="list-style-type: none"> <li>• Sourveld limits productivity</li> <li>• Livestock owners often have limited knowledge and use of inputs</li> </ul>	<ul style="list-style-type: none"> <li>• Make most efficient use of inputs</li> <li>• Recognise traditional treatments and use of herbs</li> </ul>	<ul style="list-style-type: none"> <li>• Health programme including inoculation before collective herding (also an incentive) to reduce parasite load</li> <li>• Collective management of herd</li> </ul>	<ol style="list-style-type: none"> <li>1. Establish livestock association</li> <li>2. Training livestock owners <ul style="list-style-type: none"> <li>• Nutrition</li> <li>• Health</li> <li>• Management</li> </ul> </li> <li>3. Demonstrate improved management</li> <li>4. Liaise with AHTs about state services</li> <li>5. Support collective action</li> <li>6. Keep records</li> <li>7. Register brands</li> <li>8. Ear tagging</li> <li>9. Community animal health workers</li> <li>10. LA generating funds from services</li> <li>11. Gaining access to neighbouring land</li> </ol>	<ul style="list-style-type: none"> <li>• Subsidised vaccination programme</li> <li>• Winter fodder from rested veld</li> <li>• Grazing in nature reserve</li> </ul>	<ul style="list-style-type: none"> <li>• Household livestock records</li> <li>• Sale records</li> <li>• Body condition score / BCS</li> <li>• Records of mortality + calving rates</li> <li>• Socio-economic impact</li> </ul>	<p>General + Field reference + recording:</p> <ul style="list-style-type: none"> <li>• Body condition scoring, sheet and document and ppt, INR</li> <li>• 'Guidelines to Ensure Your Animals Are Healthy', KZN DAEARD &amp; MRDT, 2011</li> <li>• Sale record template (sales)</li> <li>• Household livestock templates</li> <li>• Template for experiments</li> </ul>

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<p><b>COMPONENT 8</b></p> <p>FIRE MANAGEMENT</p> <ul style="list-style-type: none"> <li>AS THREAT, AND AS TOOL</li> <li>CONTROL &amp; MANAGEMENT</li> <li>PREVENTION &amp; RESPONSE</li> </ul>	<ul style="list-style-type: none"> <li>Burning to stimulate early regrowth</li> <li>Runaway from planned and accidental fires / negligence and arson</li> <li>Burning to deter predators</li> <li>Cross border fires in high winds</li> <li>Have well developed consulted collaborative fire management strategy for subregion along watershed</li> </ul>	<ul style="list-style-type: none"> <li>People have real reasons and beliefs for burning, and alternatives have cost implications</li> <li>Plenty of local knowledge on burning tactics and fire control; this must be worked in</li> </ul>	<ul style="list-style-type: none"> <li>Fire management strategy doc MDTP</li> <li>Awareness and training on fire prevention and control (FireWise)</li> <li>Equipment for local fire fighting</li> <li>Awareness on impacts of unmanaged rangeland burning</li> </ul>	<ol style="list-style-type: none"> <li>Identify as an issue</li> <li>Field exercise</li> <li>Identify key areas</li> <li>Broad reconnaissance</li> </ol> <ol style="list-style-type: none"> <li>Identify available resources</li> <li>Awareness and basic fire-fighting training</li> <li>Plan and implement fire protection/ management strategies</li> <li>Include complementary organisations and community</li> <li>Review and refine steps 3, 4 and 5.</li> </ol>	<ul style="list-style-type: none"> <li>Reduced human, livestock and grazing losses</li> <li>More and better quality grazing being made available</li> </ul>	<p>Surveys</p> <ul style="list-style-type: none"> <li>Focus group discussions</li> <li>Household situation analysis</li> <li>Field</li> <li>Fire frequency</li> </ul> <p>Monitor areas burnt and when</p> <p>Research</p>	<p>General + Field Reference:</p> <ul style="list-style-type: none"> <li>Posters for awareness</li> <li>Fire management document (LIMA - Lumko)</li> <li>Manuals</li> </ul>
<b>STREAM 3: BROADER CONTEXTUAL FACTORS</b>							
<p><b>COMPONENT 9</b></p> <p>STOCK THEFT</p>	<p>Big problem in area, huge threat to farmers' security, unwilling to take risks and invest in stock</p>	<ul style="list-style-type: none"> <li>Indaba's about stock issues</li> <li>Involvement of community / SAPS policing forums e.g. Mzongwana area</li> <li>Risk management e.g. Santam insurance model from Namaqualand</li> </ul>	<p>Branding to assist claiming stolen stock</p>		<ul style="list-style-type: none"> <li>Livestock security, production &amp; income</li> <li>Livestock owner security</li> </ul>	<p>Stock theft records</p>	



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<b>STREAM 3: BROADER CONTEXTUAL FACTORS</b>							
<b>COMPONENT 10</b>  CROSS BORDER ISSUES	<ul style="list-style-type: none"> <li>Upper catchment located along border with Lesotho</li> <li>Illegal grazing and theft</li> <li>Fires come over border</li> </ul>	<ul style="list-style-type: none"> <li>MDTP useful communication agent</li> <li>BCOCC (Border Control Co-ord Committee) + District Liaison Committee helpful in past for addressing issues at ports of entry</li> <li>Khutlalathaba arrangements for cross border engagement</li> </ul>			<ul style="list-style-type: none"> <li>Reduced threat from cross border stock theft + fires</li> </ul>		
<b>COMPONENT 11</b>  CLIMATE CHANGE TRACKING + RESILIENCE	<ul style="list-style-type: none"> <li>Stresses from climate change: rainfall, temperature, drought, biodiversity, livestock and human health, incomes</li> <li>Vulnerability assessment completed for ANDM</li> <li>General community awareness</li> <li>EBA and CC are flavour of the month</li> </ul>	<ul style="list-style-type: none"> <li>Water security issues are a good way to mobilise local government, building on flavour of the month theme of climate change resilience</li> </ul>	<ul style="list-style-type: none"> <li>Climate diaries</li> <li>Heat stress monitoring</li> <li>EWT's EGS monitoring and evaluation / change tracking tool</li> </ul>	Include resilience indicators in baseline survey	<ul style="list-style-type: none"> <li>Sustainable benefit flows to communities through improved ecosystem + social resilience</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of resilience indicators, such as heat stress</li> </ul>	Reference + field tool