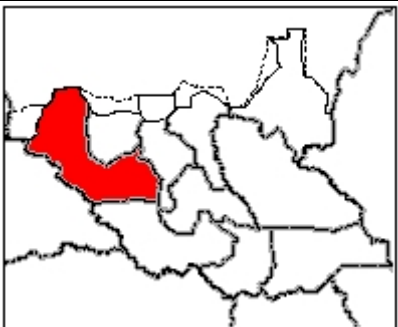
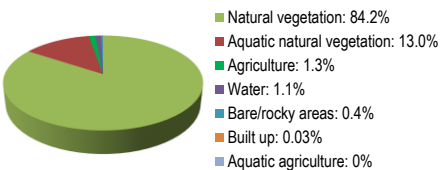


6 Western Bahr el Ghazal State (Capital: Wau)

6.1 Basic Information	
Population (2008) ^a	333,431 (10 th)
	Male: 177,040 Female: 156,391
Projected population (2013) ^b	446,123 (10 th)
Area ^c	103,408 km ² (2 th)
No. of Counties, Payams and Bomas (2009) ^b	3 Counties
	15 Payams
	86 Bomas
Food secure population (2012)	46% (10 th)
Access to improved drinking water (2009) ^e	45% (8 st)
Literacy rate (15-24 years old) (2009) ^e	50% (3 rd)
Primary school gross enrolment rate (GER) (2010) ^f	80% (2 nd)

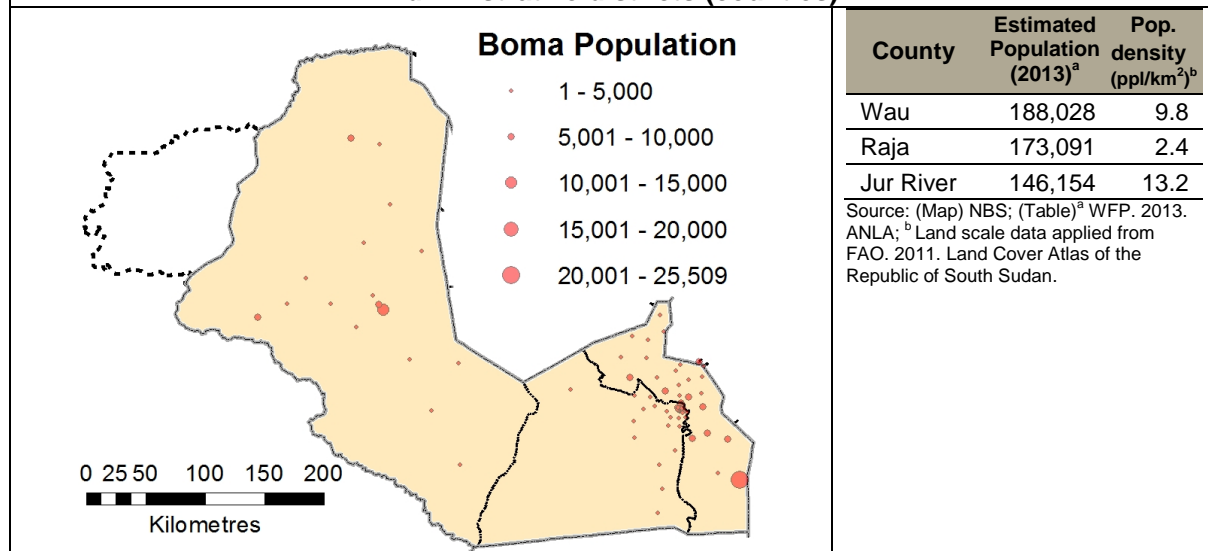


Land cover ^g

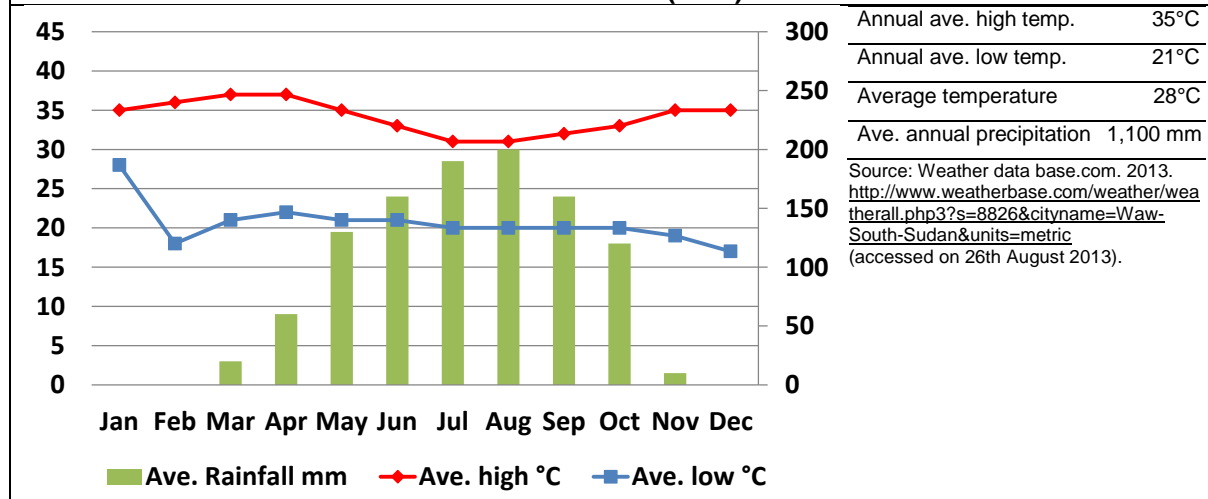


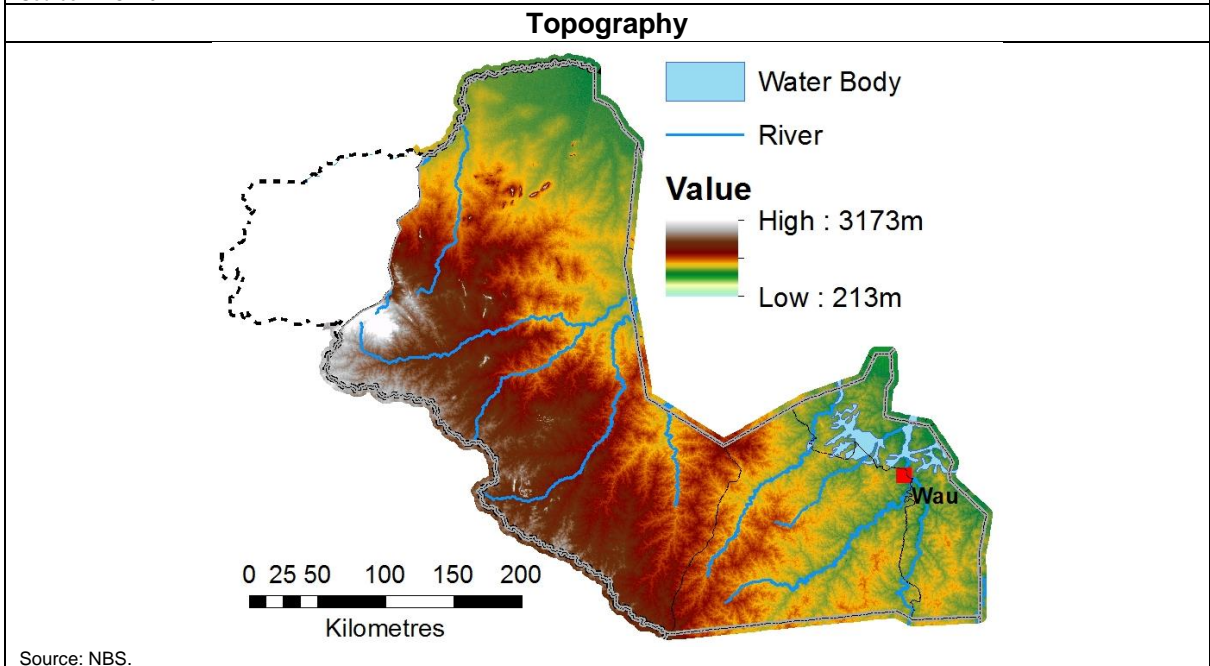
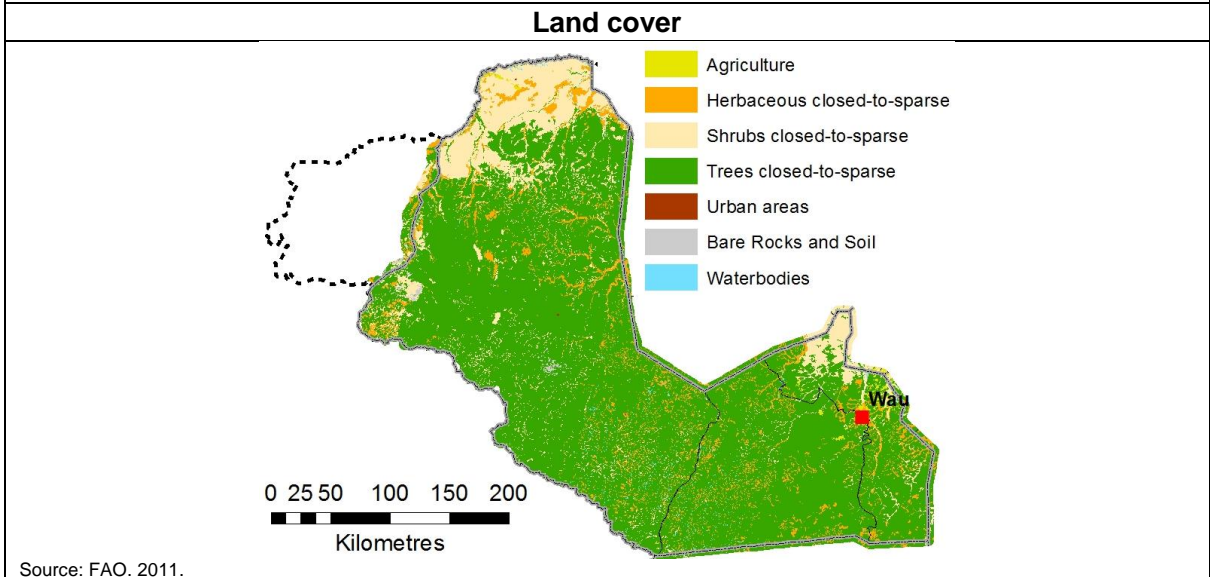
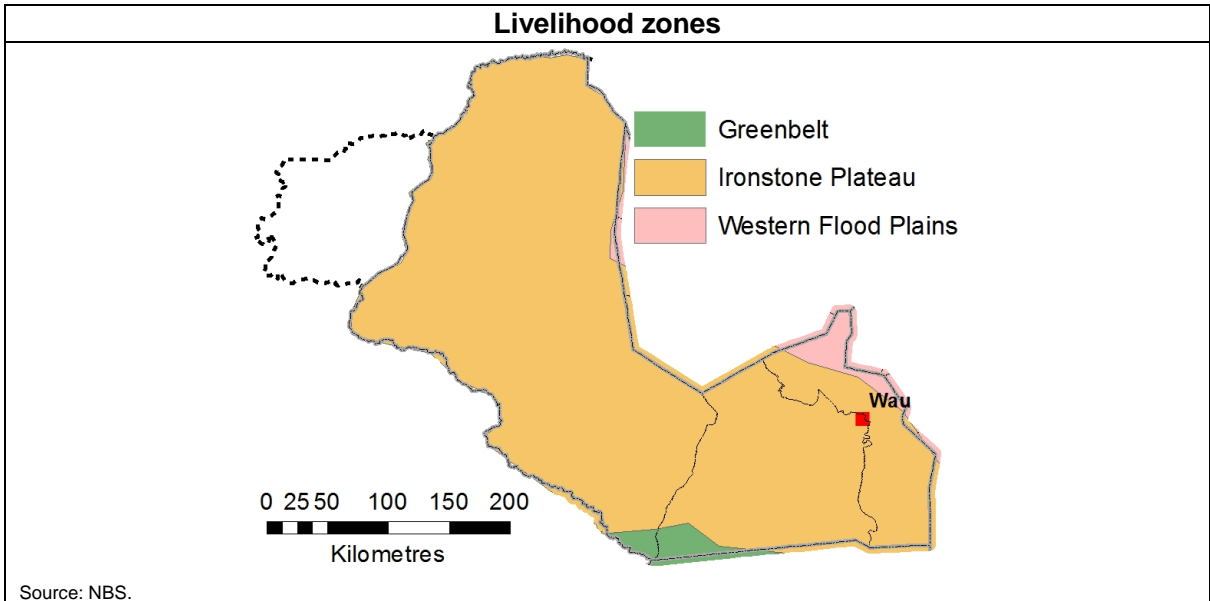
Source: ^a SSCSE, 2010. Southern Sudan Counts: Tables from the 5th Sudan Population and Housing Census, 2008; ^b WFP, 2013. ANLA; ^c FAO, 2011. Land Cover Atlas of the Republic of South Sudan; ^d Original data source of NBS, 2012. NBHS 2009; ^e NBS, 2012. NBHS 2009; ^f MoE, 2010. EMIS; ^g NBS, 2011. South Sudan Statistical Yearbook 2011.

Administrative districts (counties)

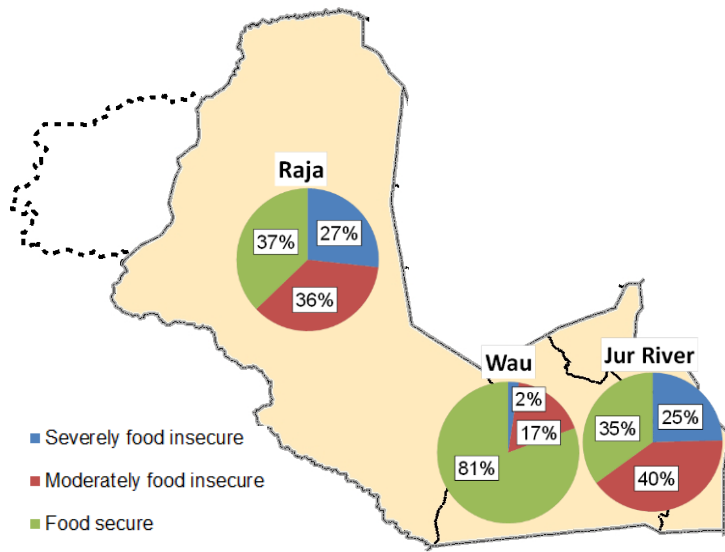


Climate chart (Wau)



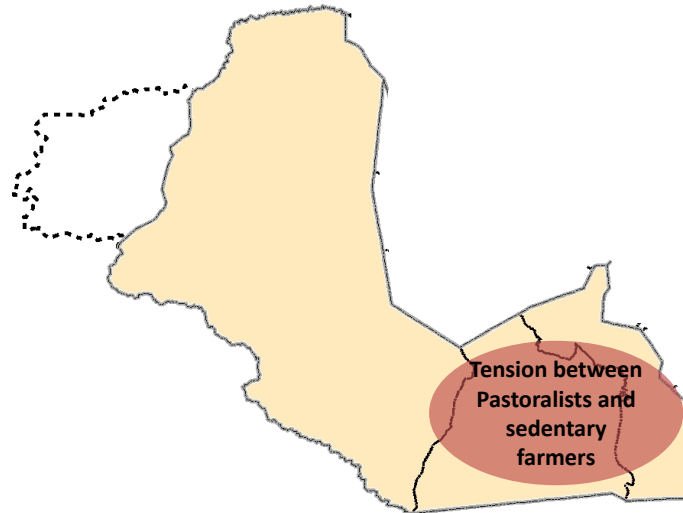


Estimated food security status by county (2013)



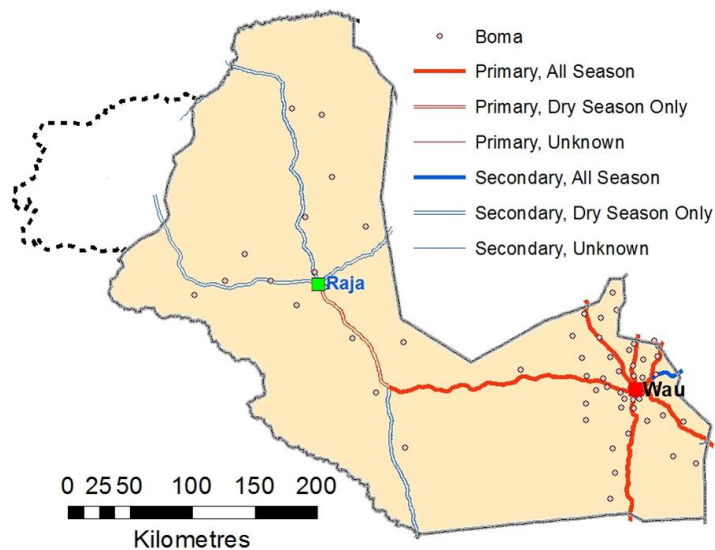
Source: WFP. 2013. ANLA.

Insecurity and natural disaster



Source: CAMP survey team. 2013.

Road and Boma location

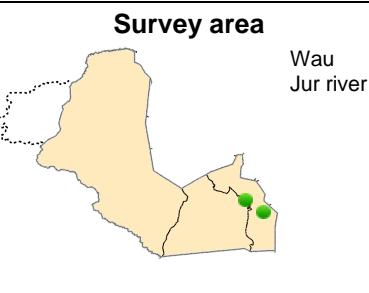


Source: Road (WFP. 2013), Boma location (NBS).

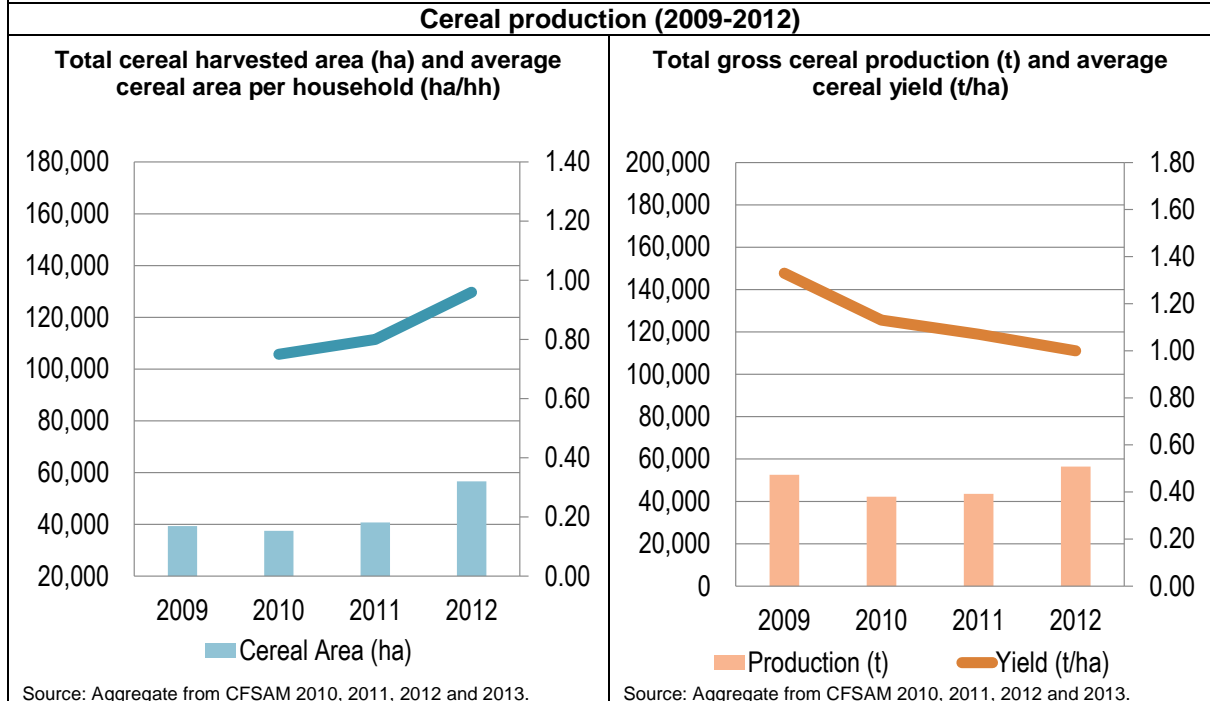
6.2 State Ministry of Agriculture, Forestry and Irrigation (MAFI)																											
Organogram		Staff																									
		Breakdown of information not fully available <table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Administration and Finance</td> <td>72</td> </tr> <tr> <td>Directorate of Planning</td> <td>13</td> </tr> <tr> <td>Directorate of Agriculture</td> <td>113</td> </tr> <tr> <td>Directorate of Forestry</td> <td>185</td> </tr> <tr> <td>Directorate of Irrigation and Water Resources Development</td> <td>1</td> </tr> <tr> <td>Directorate of Planning and Agricultural Economics</td> <td>-</td> </tr> <tr> <td>Directorate of Environment and Soil Survey</td> <td>-</td> </tr> <tr> <td>Directorate of Extension and Rural Advisory Services</td> <td>-</td> </tr> <tr> <td>Total</td> <td>384</td> </tr> </tbody> </table> Source: State MAFI.		Section	Number of staff	Directorate of Administration and Finance	72	Directorate of Planning	13	Directorate of Agriculture	113	Directorate of Forestry	185	Directorate of Irrigation and Water Resources Development	1	Directorate of Planning and Agricultural Economics	-	Directorate of Environment and Soil Survey	-	Directorate of Extension and Rural Advisory Services	-	Total	384				
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<table border="1"> <thead> <tr> <th>Category</th> <th>2011/12 Budget</th> <th>2011/12 Outturn</th> <th>2012/13 Budget</th> </tr> </thead> <tbody> <tr> <td>Salary</td> <td>3,930,576</td> <td>3,596,376</td> <td>3,027,976</td> </tr> <tr> <td>Operating Transfers</td> <td>873,450</td> <td>396,351</td> <td>944,444</td> </tr> <tr> <td>Others</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Capital</td> <td>4,006,905</td> <td>1,053,204</td> <td>1,569,937</td> </tr> <tr> <td>Overall total</td> <td>8,810,931</td> <td>5,045,931</td> <td>5,542,357</td> </tr> </tbody> </table> Source: State MAFI. Unit: SSP	Category	2011/12 Budget	2011/12 Outturn	2012/13 Budget	Salary	3,930,576	3,596,376	3,027,976	Operating Transfers	873,450	396,351	944,444	Others	-	-	-	Capital	4,006,905	1,053,204	1,569,937	Overall total	8,810,931	5,045,931	5,542,357	WBG Strategic plan (2010-12) <p>Objective</p> <ul style="list-style-type: none"> To contribute to the enhancement of food security for about 35% of the people of WBG State by promoting private sector development and supporting self-employment opportunities in the agriculture and forestry subsectors To contribute to the improvement of food security and livelihoods of the population of WBG State through sustainable and improved animal resources and fisheries production <p>Budget Plan (Information not available)</p> <ul style="list-style-type: none"> Provide infrastructure and strengthen Institutions through capacity development and training Conduct technical assessment to establish current levels of agricultural production and factors limiting increased production Rehabilitate existing state farms and establish demonstration farms for local farmers Establish robust forestry advisory and extension services to encourage agroforestry and afforestation <p>Activities</p> <ul style="list-style-type: none"> Train farmers on agroforestry Organise food security and livelihood coordination meetings Run awareness campaign for environmental degradation and deforestation Promote agro enterprises activities in the rural areas Provide improved seeds and tools Source: State MAFI.		
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Services provided by State MAFI and local government																											
<p>(Technical advice)</p> <ul style="list-style-type: none"> Technical advice and training are provided to farmers. Some activities are conducted in cooperation with NGOs. Field survey for monitoring farmers' activities <p>(Seed/Tool provision)</p> <ul style="list-style-type: none"> Improved seeds are provided. Due to logistic issues, the provision is often late. <p>(Demo farm and field day= visit to field to share best agricultural practices)</p> <ul style="list-style-type: none"> Some demo farms are installed. <p>(Tractor hiring service)</p> <ul style="list-style-type: none"> The number of the tractors provided by the State MAFI is not enough to meet farmers' needs. 																											

6.3 Crop			
Services provided by DPs and NGOs			
Organisation	Activities	Area	Target
ACTED (Agency for Technical Cooperation and Development)	Following technical advices are provided: <ul style="list-style-type: none"> • Land preparation • Vegetable growing • Inter-cropping • Compost making • Small-scale irrigation • Financial management • Seeds and tools provision 	Wau and Jur river Counties	Vulnerable groups
Dorcas Aid International	Provide technical advice and training. Install demo plots for agricultural development.	Wau County	Vulnerable groups
<p>*1 Activities of NGOs and DPs are mainly delivery of training and provision of tools and seeds. *2 There are a number of DPs and NGOs in the state. The above information collected by CAMP team is shown as an example.</p>			
Services provided by private sector			
<p>(Tractor hiring service)</p> <ul style="list-style-type: none"> • There are few private tractor providing hiring services. • The charge is SSP 250/feddan for ploughing. <p>(Agro dealer)</p> <ul style="list-style-type: none"> • Improved seeds, mainly imported from Sudan, are available in a hardware shop. • The shop owner conducts germination test and gives technical advice as well to the customers. <p>(Financial institution)</p> <ul style="list-style-type: none"> • Agricultural Bank of South Sudan provides a loan service to farmers groups and some individual farmers. 			

Market						
Agricultural products and their origin (Wau, May 2013)						
(Cereal)			(Others)			
Item	Type	Origin	Item	Type	Origin	
Sorghum	Import	Sudan	Tomato	Import	-	
	Domestic	-		Domestic	Wau	
Maize	Import	Uganda	Egg plant	Import	-	
	Domestic	Ezo (WE State)		Domestic	Wau	
Pearl Millet	Import	Sudan	Okra	Import	Uganda	
	Domestic	-		Domestic	Wau	
Maize flour	Import	Uganda	Okra (Flour)	Import	Sudan	
	Domestic	-		Domestic	-	
Wheat flour	Import	Sudan	Jew's mallow	Import	-	
	Domestic	-		Domestic	Wau	
Groundnut	Import	-	Ginger (Dried)	Import	Sudan	
	Domestic	Wau		Domestic	-	
Source: CAMP survey team 2013.			Source: CAMP survey team 2013.			
*1 This is not a representative sample.			* This is not a representative sample.			
*2 WE: Western Equatoria						
Market price (Retail price, Wau, May 2013)						
Item	Unit	Price (SSP) (range)				
		Low season				High season
Sorghum (Domestic)	Sack (100 kg)	Feb-May	300	-	500	May-Aug
Sorghum (Import)	Sack (100 kg)	Feb	500	-	800	Aug
Maize (Domestic/WE State)	Sack (100 kg)	Feb	200	-	300	Aug
Maize (Import)	Sack (50 kg)	Feb-May	150	-	200-280	May-July
Maize flour (Import)	Sack (50 kg)	Aug-Dec	230	-	250	Jan-July
Wheat flour (Import)	Sack (100 kg)	Depend on market demand	360	-	380	Depend on market demand
Pearl Millet (Import)	Sack (100 kg)	Feb	350	-	400	Aug
Groundnut (Domestic)	Sack (100 kg)	Feb-May	120	-	180	May-Aug
Eggplant (Domestic)	4 pieces	Aug-Nov	5	-	10	Jan-May
Tomato (Domestic)	Piece	July-Dec	5 (4 pieces)	-	5 (3 pieces)	Jan-May
Okra (Domestic)	Piece	July-Dec	6 (5 pieces)	-	6 (4 pieces)	Jan-May
Source: CAMP survey team 2013.						
*1 This is not a representative sample.						
*2 WE: Western Equatoria						
Transportation cost (Wau, May, 2013)						
Type	Unit	Currency	Cost			
(Information not available)	(Information not available)	(Information not available)				
Tax and charge (Wau, May, 2013)						
(Wholesaler/trader)						
Type	Cost (SSP) (range)		Frequency			
Licence	500-1,200		Annually			
Police service	30-50		Monthly			
Rent charge	300-1,200		Monthly			
(Retailer)						
Type	Cost (SSP) (range)		Frequency			
Rent table	60		Monthly			
Market cleaning fee	1		Daily			
Security fee	2		Daily			
Source: CAMP survey team 2013.						
*This is not a representative sample.						

Crop production		<p>Survey area</p> 
Farming household (%) (2012)	78	
Farming household (No.) (2012)	58,702	
Total cereal area (ha) (2012)	56,635 (9 th)	
Cereal gross yield (t/ha) (2012)	1.00 (3 rd)	
Gross cereal production (t) (2012)	56,460 (8 th)	
Average cereal area per household (ha/hh) (2012)	0.96 (4 th)	

Source: FAO and WFP. 2013 CFSAM.



Source: Aggregate from CFSAM 2010, 2011, 2012 and 2013.

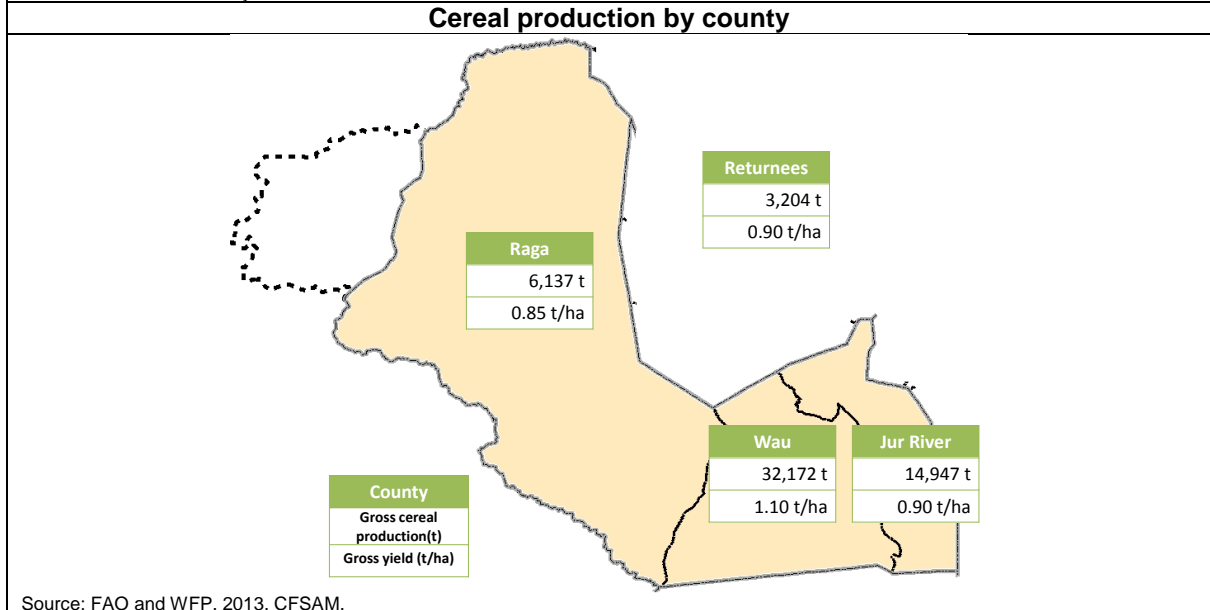
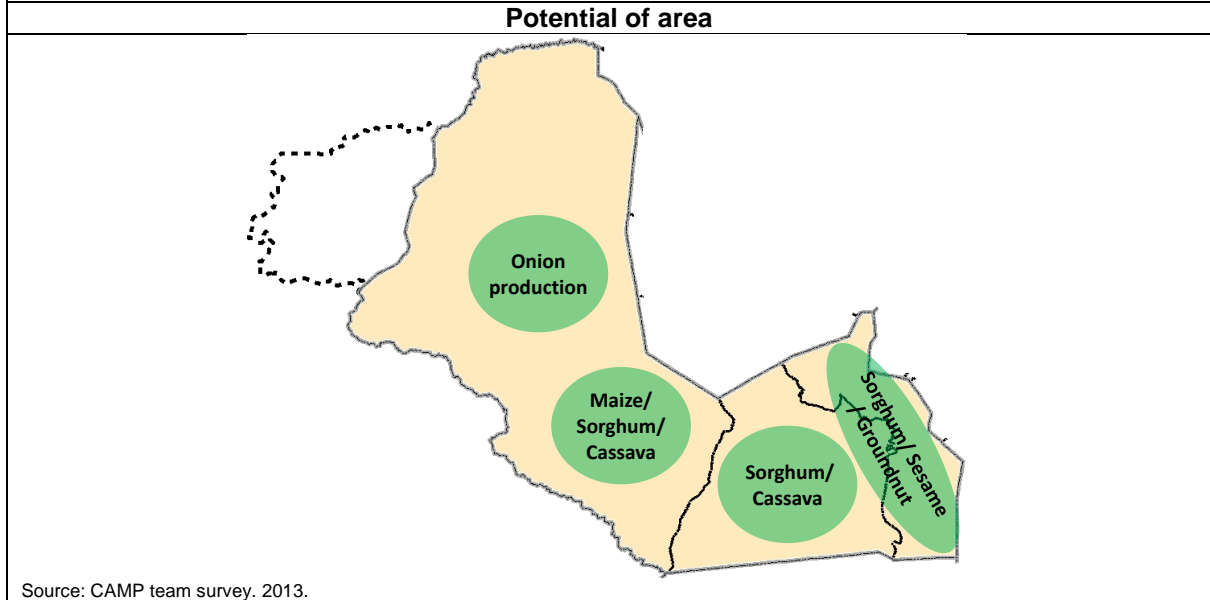
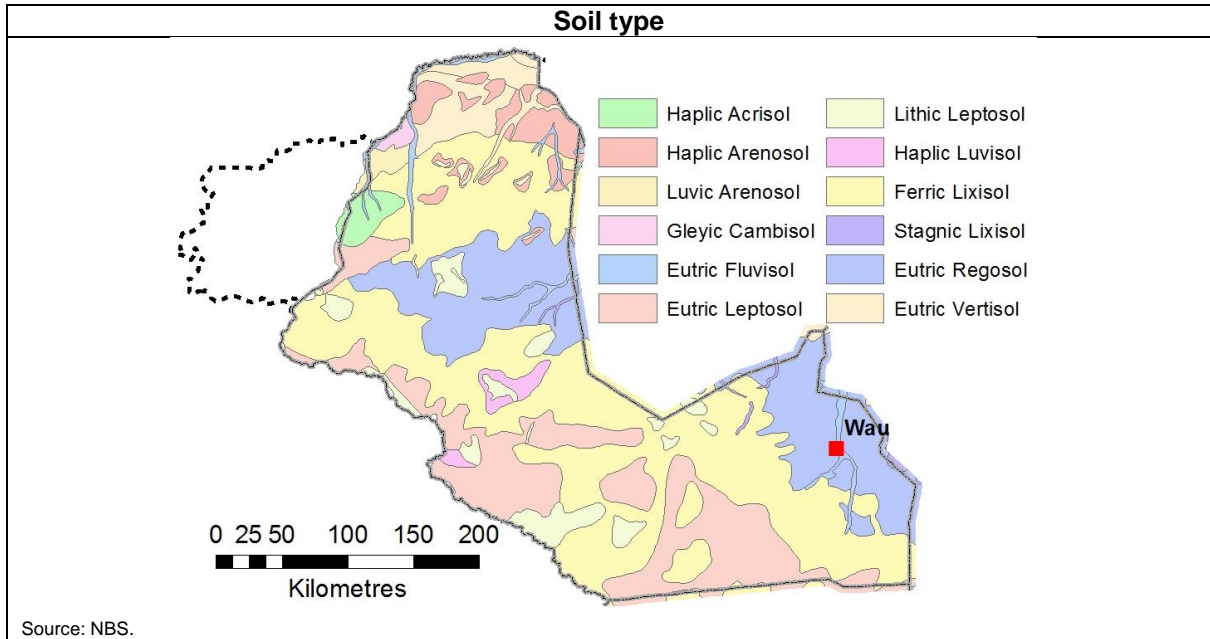
Source: Aggregate from CFSAM 2010, 2011, 2012 and 2013.

Crop production by livelihood zone			
Ironstone Plateau		Western Flood Plains	
Major agricultural products			
Crop	Vegetable	Crop	Vegetable
Sorghum	Onion	Sorghum	Tomato
Maize	Okra	Bean	Onion
Cassava	Tomato	Finger millet	Water melon
Bean	Pumpkin	Cash Crop	
Cash Crop	Watermelon	Groundnut	
Groundnut	Jew's mallow	Sesame	
Sesame			
Cowpea			

Cropping calendar												
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum			L	L	S	S	S		H	H	H	H
Maize				L	S				H			
Cassava (2yrs)			H	L	S	S						
Groundnut				L	S	S	S	S	S	H	H	H
Sesame	H			L	S	S	S	S	H	H	H	H
Bean				L	S				H	H	H	
Okra				L	S				H	H		
Water melon				L	L	S	S		H	H	H	
<p>Legend: L Land preparation, S Sowing, T Transplanting, H Harvesting</p>												

Source: CAMP survey team. 2013.

Source: CAMP survey team. 2013.



Cross cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Tension between pastoralist and sedentary farmers <p>(Gender)</p> <ul style="list-style-type: none"> • Women take important role in agricultural production. • Women have a voice in village meetings. However, decision making is done by men in many cases. <p>(Security)</p> <ul style="list-style-type: none"> • Tribal conflicts occurred in 2012. There is still tension between two tribes. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> • Land is usually allocated to IDPs and returnees. However, their living standards are relatively lower than the average. <p>(HIV)</p> <ul style="list-style-type: none"> • The infection rate is unknown.
Opportunities
<p>Crop</p> <ul style="list-style-type: none"> • Vast unutilized land • Suitable soil for cultivation • Abundant labour force
Challenges
<p>Overall</p> <ul style="list-style-type: none"> • Feeder roads are not well established. • Poor access to financial institutions • High tax rates • High transport costs • High labour costs
<p>Crop</p> <ul style="list-style-type: none"> • Underdeveloped agricultural extension system • Financial services are not available for many farmers. • No effective pest and disease control methods • Inadequate post-harvest facilities lower net production.

6.4 Forestry

On-going and proposed projects

List of on-going projects

Project name	Objectives/activities	Duration	Annual cost
Agro-forestry (DECCOPE)	Introduce fruit seedling for sustainability management	2 years	(Information not available)
Multi-Purpose Tree Services (MPTS) Nursery Peace Corp	Propagate and distribute seedlings for forest conservation	(Information not available)	(Information not available)

Source: CAMP team survey. 2013.

List of proposed projects

Project name	Objectives/activities	Duration	Annual cost
Nursery development	Propagate seedlings for plantation	(Information not available)	(Information not available)
Afforestation	Develop plantation	(Information not available)	(Information not available)
Agro-forestry	Introduce agro-forestry practice	(Information not available)	(Information not available)
Rehabilitation of saw milling	Increase timber production	(Information not available)	(Information not available)
Capacity building	Train farmers on forest management	(Information not available)	(Information not available)
Coppice management	Improvement of stock	(Information not available)	(Information not available)
Rehabilitation of Forestry Development HOR office	Improve work environment for effective services provision	Oct. 2013-May 2014	1,913,171.64
Rehabilitation of Pongo Nuer Saw mill	Increase timber production	Oct. 2013-Dec. 2014	599,366
Training of staff on agro-forestry and extension service	Develop staff's capacity for effective extension services	Nov. 2013-Jan. 2014	65,000
Awareness campaign on environmental degradation and deforestation	Enlighten farmers on importance of environmental conservation	(Information not available)	10,000
Establishment of agro-forestry nurseries	Promote agro-forestry in the communities	Oct. 2013-Nov. 2013	97,838

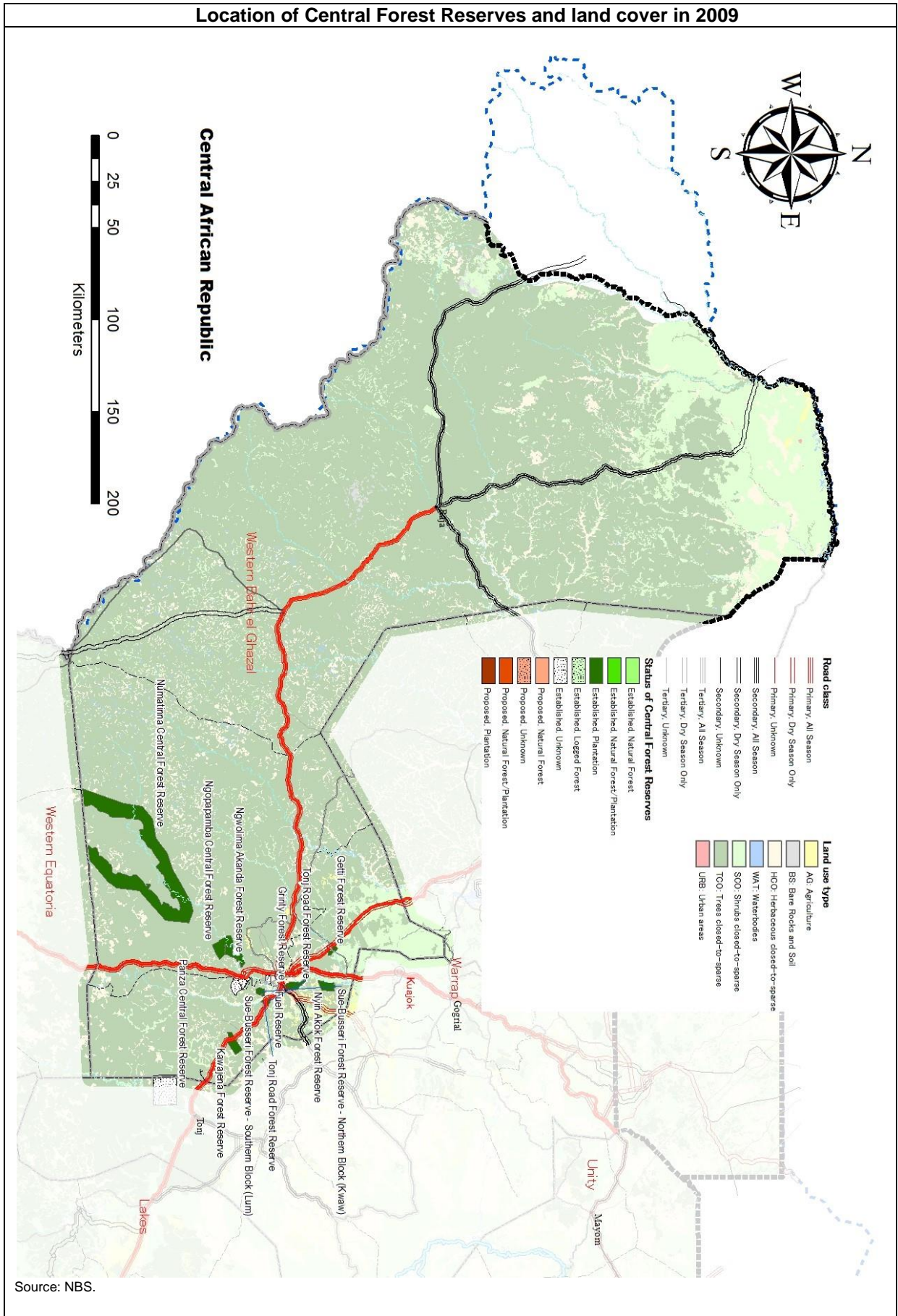
Source: CAMP team survey. 2013.

Land cover percentage to total area

County	AG	TCO	SCO	HCO	URB	BS	WAT	Total area	Total area (ha)
Jur River	8.2%	66.3%	15.6%	9.5%	0.0%	0.0%	0.4%	100.0%	1,111,155
Raga	0.3%	71.4%	19.3%	7.6%	0.0%	0.5%	1.0%	100.0%	7,305,684
Wau	1.1%	88.1%	1.2%	7.4%	0.1%	0.2%	2.0%	100.0%	1,923,927
Total	1.3%	73.9%	15.5%	7.8%	0.0%	0.3%	1.1%	100.0%	10,340,766

Source: FAO. 2011. *Land cover atlas of South Sudan*. Rome: FAO.

Legend: AG=Agriculture, TCO=Tree closed-to-sparse, SCO=Shrubs closed-to-sparse, HCO=Herbaceous closed-to sparse, URB=Urban areas, BS=Bare Rocks and Soil, and WAT=Waterbodies.



6.5 State Ministry of Animal Resources and Fisheries (MARF)																																			
Organogram			Staff																																
<pre> graph TD Minister --> DG[Director General] DG --> DF[Directorate of Fisheries] DG --> DAP[Directorate of Animal Production] DG --> DVS[Directorate of Veterinary Services] DG --> DRD[Directorate of Human Resources Development] DG --> DFA[Directorate of Finance and Administration] </pre>			Breakdown of information not available <table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Fisheries</td> <td>-</td> </tr> <tr> <td>Department of Control</td> <td>(-)</td> </tr> <tr> <td>Department of Fisheries</td> <td>(-)</td> </tr> <tr> <td>Directorate of Animal Production</td> <td>-</td> </tr> <tr> <td>Department of Animal Production</td> <td>(-)</td> </tr> <tr> <td>Department of Animal Health</td> <td>(-)</td> </tr> <tr> <td>Directorate of Veterinary Services</td> <td>-</td> </tr> <tr> <td>Directorate of Human Resources Development</td> <td>-</td> </tr> <tr> <td>Directorate of Finance and Administration</td> <td>-</td> </tr> <tr> <td>Department of Accounts</td> <td>(-)</td> </tr> <tr> <td>Department of Procurement</td> <td>(-)</td> </tr> <tr> <td>Department of Human Resource</td> <td>(-)</td> </tr> <tr> <td>Department of Planning</td> <td>(-)</td> </tr> <tr> <td>Department of Administration</td> <td>(-)</td> </tr> <tr> <td>Total</td> <td>249</td> </tr> </tbody> </table>	Section	Number of staff	Directorate of Fisheries	-	Department of Control	(-)	Department of Fisheries	(-)	Directorate of Animal Production	-	Department of Animal Production	(-)	Department of Animal Health	(-)	Directorate of Veterinary Services	-	Directorate of Human Resources Development	-	Directorate of Finance and Administration	-	Department of Accounts	(-)	Department of Procurement	(-)	Department of Human Resource	(-)	Department of Planning	(-)	Department of Administration	(-)	Total	249
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Budget			Strategic plan																																
Category	2011/12 Budget	2012/13 Outturn	2013/14 Budget																																
Salary	(Data not available)	136,831,804	144,021,638																																
Operating	(Data not available)	19,992,977	44,850,556																																
Transfers	(Data not available)	-	-																																
Others	(Data not available)	-	-																																
Capital	(Data not available)	9,571,841	12,606,195																																
Overall total	(Data not available)	166,396,622	201,478,389																																
Source: State MARF. Unit: SSP			WBG State Strategic plan (2012-15) Objective <ul style="list-style-type: none"> To contribute to the enhancement of food security for about 35% of the people of WBG State by promoting private sector development and supporting self-employment opportunities in the agriculture and forestry subsectors To contribute to the improvement of food security and livelihoods of the population of WBG State through sustainable and improved animal resources and fisheries production Budget Plan (Information not available) <ul style="list-style-type: none"> Provide infrastructure and strengthen Institutions through capacity development and training Conduct technical assessment to establish current levels of animal production and factors limiting increased production Promote animal and poultry disease control and establish livestock marketing mechanism Promote establishment of fisheries marketing mechanism Establish poultry houses, quarantine, fence and installed electricity and water supply Activities <ul style="list-style-type: none"> Conduct different training for staff at the state and the counties Initiate the formation of community animal health workers associations Train veterinary pharmacists on basic dispensing and animal health prophylactic treatment Poultry houses constructed and supplied with electricity and water 																																
Source: State MARF.			Source: State MARF.																																
Services provided by State MARF and local government																																			
(Animal production services) <ul style="list-style-type: none"> Provide technical advices to livestock keepers Provide information through radio programme run by State MARF (Animal health services) <ul style="list-style-type: none"> Provide clinical support to livestock keepers Technical support to livestock keepers 																																			

6.6 Livestock

Services provided by National government institutions

Organisation	Activities	Area	Period
Marialai Dairy Farm	<ul style="list-style-type: none"> • Training of smallholder dairy farmers in quality breeds, quality feeds, animal health, and milk processing techniques. • The target is vulnerable groups. • Produce milk and other dairy products by the trainees to improve their livelihoods 	Jur river County	(Information not available)
University of Bahr El Ghazal, college of Vet Services (Wau)	<ul style="list-style-type: none"> • Undergraduate course (Bachelor degree) • Postgraduate course (MSc and PhD) 	Veterinary science	5 years 2 years each

Source: CAMP survey team. 2013.

Services provided by DPs and NGOs

Organisation	Activities	Area	Period
WOTAP (Women Training and Promotion)	<ul style="list-style-type: none"> • Undertake goat, sheep and poultry restocking program • Deliver training and workshops 	Wau County	Throughout the year
WDG (Women Development Group)	<ul style="list-style-type: none"> • Provide ox-ploughing attachments and give training. • Undertake goat and poultry restocking program 	Wau County	Throughout the year
Intermon Oxfarm	<ul style="list-style-type: none"> • Undertake sheep and bull restocking program 	(Information not available)	(Information not available)
FAO	<ul style="list-style-type: none"> • Deliver training to local CAHWs • Provide bicycles for extension work 	(Information not available)	(Information not available)
HARD (Hope Association for Relief and Development)	<ul style="list-style-type: none"> • Deliver goat and poultry restocking program 	(Information not available)	(Information not available)

Source: CAMP survey team. 2013.

*CAHW: Community Animal Health Worker

Services provided by private sector

(Agro-dealer)

- There are some agro-dealers providing veterinary drugs and technical advices.

(Slaughter house)

- Only one slaughter slab is run by a private individual.

(Livestock market)

Livestock market is run by the state government. However, following services are provided by private sector:

- Inspect origin of animals to find out if the animals are stolen
- Provide holding grounds
- Provide security
- Provide transport service to butcheries

Livestock population

Type of Animal	Population In the State
Cattle	1,200,000
Goat	750,000
Sheep	980,000
Poultry	800,000
Horse	2,000
Pig	163
Donkey	5,000
Total	3,727,163

Source: CAMP survey team. 2013.

Livestock diseases		
Type of Animal	Type of disease	Outbreak area in last 2 years
Cattle	Liver problems, Contagious bovine pleuropneumonia	There was no outbreak in the last 2 years.
	Anthrax	There was no outbreak in the last 2 years.
	Diarrhoea	There was no outbreak in the last 2 years.
	Haemorrhagic septicaemia, Foot and mouse disease	There was no outbreak in the last 2 years.
Goat	Contagious bovine pleuropneumonia	There was no outbreak in the last 2 years.
	Arthritis	There was no outbreak in the last 2 years.
	Diarrhoea	There was no outbreak in the last 2 years.
	Elimentisis	There was no outbreak in the last 2 years.
	Mange	There was no outbreak in the last 2 years.
Sheep	Contagious Bovine Pleura Pneumonia	There was no outbreak in the last 2 years.
	Arthritis	There was no outbreak in the last 2 years.
	Diarrhoea	There was no outbreak in the last 2 years.
	Elimentisis	There was no outbreak in the last 2 years.
	Mange	There was no outbreak in the last 2 years.
Pig	(Information not available)	(Information not available)
Horse	(Information not available)	(Information not available)
Donkey	(Information not available)	(Information not available)

Source: CAMP survey team. 2013.

Animal health issues

- The number of state staff and CAHWs (Community Animal Health Workers) are not enough to control animal diseases.
- There are limited grazing areas because these areas are communal lands.
- Water points are not enough to keep livestock healthy.
- Drugs supply is not sufficient to provide animal health service.

Market

Type of livestock and livestock product	Market
Cattle	Domestic and secondary
Sheep	Domestic and secondary
Goat	Domestic and secondary
Poultry	Domestic and secondary
Meat	Domestic and secondary
Egg	Domestic and secondary
Milk	Primary
Honey	Primary

Source: CAMP survey team. 2013.

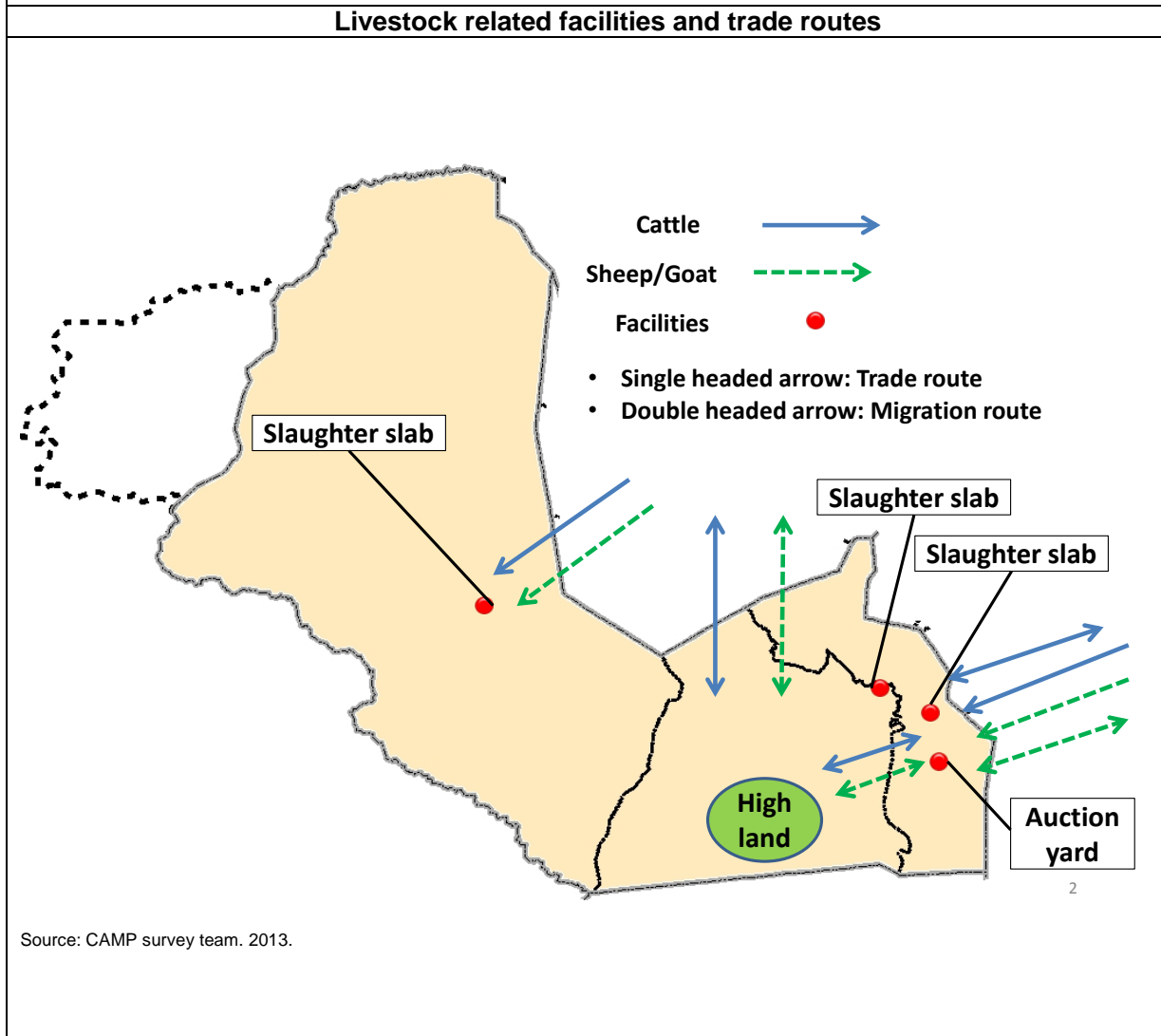
Market price

Item	Unit	Price (SSP) (range)		
		Low season		High season
Bull (big)	400 kg	November-April	2,000-2,500 - 3,000-3,500	May-October
Bull (medium)	280 kg	November-April	1,000-1,500 - 2,000-2,500	May-October
Heifer	180 kg	(Information not available)	1,000 - 1,000	(Information not available)
Calf	200 kg	(Information not available)	500 - 500	(Information not available)
Sheep	75-80 kg	(Information not available)	150 - 150	(Information not available)
Goat	75-80 kg	(Information not available)	200 - 200	(Information not available)
Milk	500 ml	(Information not available)	3 - 3	(Information not available)
Honey	600 ml	(Information not available)	15 - 15	(Information not available)
Meat (beef)	1 kg	(Information not available)	20 - 20	(Information not available)
Meat (sheep and goat)	1 kg	(Information not available)	30 - 30	(Information not available)
Egg (exotic)	Each	(Information not available)	1 - 1	(Information not available)
Milk tea	1 cup	(Information not available)	2 - 2	(Information not available)

Source: CAMP survey team. 2013.

*This is not a representative sample.

Taxes and charges			
(Butcheries)			
Type	Cost (SSP) (range)	Frequency	
Meat sales licence	200	Every 6 months	
Trade Licence	400	Annually	
Profit taxes (tax rate not available)	300-400	Annually	
Municipality fee	40	Monthly	
Security fee	40	Monthly	
Source: CAMP survey team. 2013. *This is not a representative sample.			
Major livestock species and products by livelihood zone			
Ironstone Plateau		Western Flood Plains	
Type of Animal	Breed	Type of Animal	Breed
Cattle	Local	Cattle	Local
Goat	Local	Goat	Local
Sheep	Local	Sheep	Local
Poultry	Local	Poultry	Local
Livestock products		Livestock products	
<ul style="list-style-type: none"> Meat Milk Egg Local fat 		<ul style="list-style-type: none"> Meat Milk Egg Local fat 	
Source: CAMP survey team. 2013			

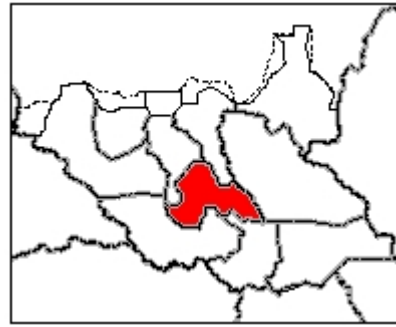


Cross-cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Tension at communal grazing areas among pastoralists • Land use is not effective. (e.g. land rotation) • Land boundary issue between sedentary farmers and pastoralists from other states <p>(Migration)</p> <ul style="list-style-type: none"> • Long distance migration causes low livestock and milk production. <p>(Conflict and insecurity)</p> <ul style="list-style-type: none"> • Tension between sedentary farmers and pastoralist results in conflicts. • Conflicts occur at common grazing and watering points occasionally. <p>(Gender disparities)</p> <ul style="list-style-type: none"> • Unequal cattle ownership • Decision-making is done by men. • Women are seen as property in some areas. <p>(Drought and floods)</p> <ul style="list-style-type: none"> • Unstable climate lowers livestock production and productivity.
Opportunities
<ul style="list-style-type: none"> • Vast land • Sufficient rain and underground water • Sizable livestock population • A number of CBOs (Community Based Organisations) and DPs/NGOs are operating in the state. • High supply capacity of livestock products • Livestock markets are well-functioning. • Local government institutions have strong authority.
Challenges
<ul style="list-style-type: none"> • Irregular rainfall • Livestock diseases • Livestock facilities • Transportation of livestock and livestock products • Traditional method of livestock keeping • Resource-based conflict (grazing and watering points) • Capacity of the State MARF is insufficient • Technological packages are not available. (e.g. information techniques) • Feeder roads are not well established.

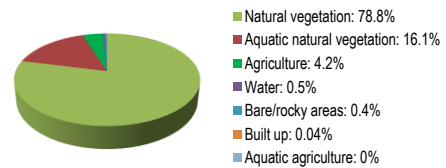
6.7 Fisheries					
Numbers of fishing households (ANLA 2012)		4,010			
Fish production	Unknown. There is no ice availability in the state.				
Fish exports	Fish from Wau and WBG State travels to NBG State for Mandesha.				
Fish imports	Fresh fish comes from Warrap mainly to Wau for the urban market. Small pelagics from Uganda and Kosti for preparation of Mandesha. Dried fish from Lakes, Unity and and Upper Nile States. Some daga'a and small amount of smoked fish from Uganda.				
Seasonality	All year in the large Jur River and similar. Elsewhere late wet season on the floodplains, dry season in the lakes and smaller rivers.				
Landing sites	Scattered near rivers and lakes. Mostly seasonal except in the Jur River and tributaries				
Gears	Cast nets, long lines, spears, gill nets. Extensive use of plant poisons in enclosed waters.				
Vessels	Dugout and dugout palm log canoes.				
Informal taxation	Mainly a problem for importers of pelagics from Uganda.				
Market	Fish sold fresh if near to a market, but much dried for preparation into Mandesha or sale to local markets.				
Aquaculture					
<p>There is no producing aquaculture in the state (late 2013) though one entrepreneur is building 2 ponds. These have not yet been stocked. Water supply will be a problem for large scale aquaculture in the future, and the temperatures may be too high in the hot season. State MARF has plans for the future for aquaculture but these await funding. (Photo: Half dug pond near Wau)</p>					
Post-harvest and marketing					
		<p>Fish is coming in to Wau from Warrap State fresh. Definite preference for fresh fish, though Mandesha also widely available and made in WBG State. All fish sold by the kilo in WBG State, except Mandesha and some dried fish which is sold by the rotl (450gms: an Arab measure of weight). (Photo: Fresh fish for sale in Wau)</p>			
Species	Presentation	SSP/kg	Species	Presentation	SSP/kg
Alestes	Fresh	25.77	Bagrus dogmac	Fresh	40.00
Clarius spp	Fresh	29.32	Tilapia spp	Fresh	38.00
Clarius anguillarus	Sun dreid	58.72	Distichotus spp	Sun dried	51.85
Herotus niloticus	Sun dried	50.00	Lates niloticus	Sun dried	51.85
Uganda pelagics	Sun dried	17.78	Bagrus dogmac	Fresh	40.00
Alestes	Fresh	25.77			

7 Lakes State (Capital: Rumbek)

7.1 Basic Information	
Population (2008) ^a	695,730 (7 th)
	Male: 365,880 Female: 329,850
Projected population (2013) ^b	879,012(7 th)
Area ^c	44,075 km ² (6 th)
No. of Countites, Payams and Bomas (2009) ^d	8 Counties
	49 Payams
	122 Bomas
Food secure population (2012) ^b	62% (6 th)
Access to improved drinking water (2009) ^e	71% (1 st)
Literacy rate (15-24 years old) (2009) ^e	30% (7 th)
Primary school gross enrolment rate (GER) (2010) ^f	67% (7 th)



Land cover ^g



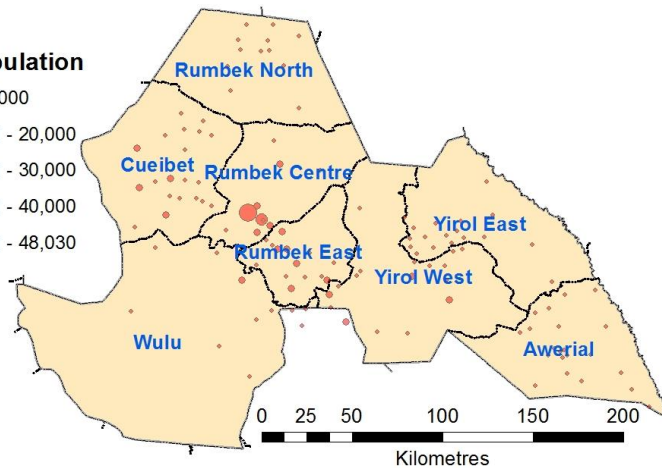
Source: ^a SSCSE. 2010. Southern Sudan Counts: Tables from the 5th Sudan Population and Housing Census, 2008; ^b WFP. 2013. ANLA; ^c FAO. 2011. Land Cover Atlas of the Republic of South Sudan; ^d Original data source of NBS. 2012. NBHS 2009; ^e NBS. 2012. NBHS 2009; ^f MoE. 2010. EMIS; ^g NBS. 2011. South Sudan Statistical Yearbook 2011.

Administrative districts (counties)

County	Estimated Population density (2013) ^a	
	Population (2013) ^a	Pop. density (ppt/km ²) ^b
Rumbek Centre	174,469	45.0
Rumbek North	140,385	29.2
Yirol East	134,582	26.9
Cueibet	133,857	25.7
Rumbek East	133,798	55.6
Yirol West	121,218	18.8
Awerial	53,763	11.9
Wulu	46,319	3.9

Boma Population

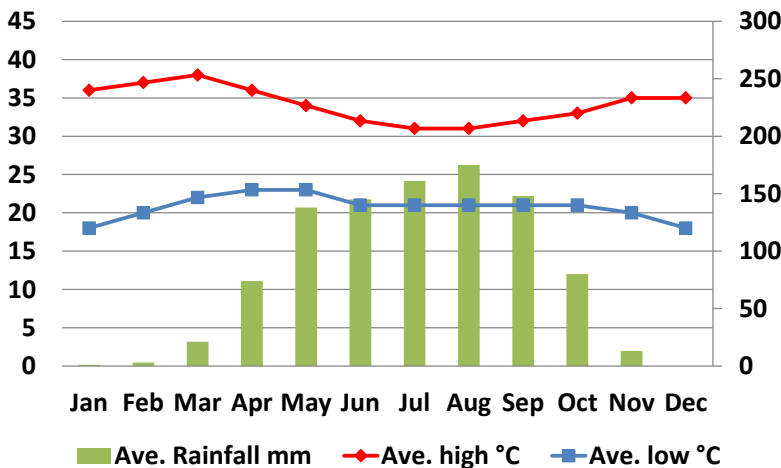
- 1 - 10,000
- 10,001 - 20,000
- 20,001 - 30,000
- 30,001 - 40,000
- 40,001 - 48,030



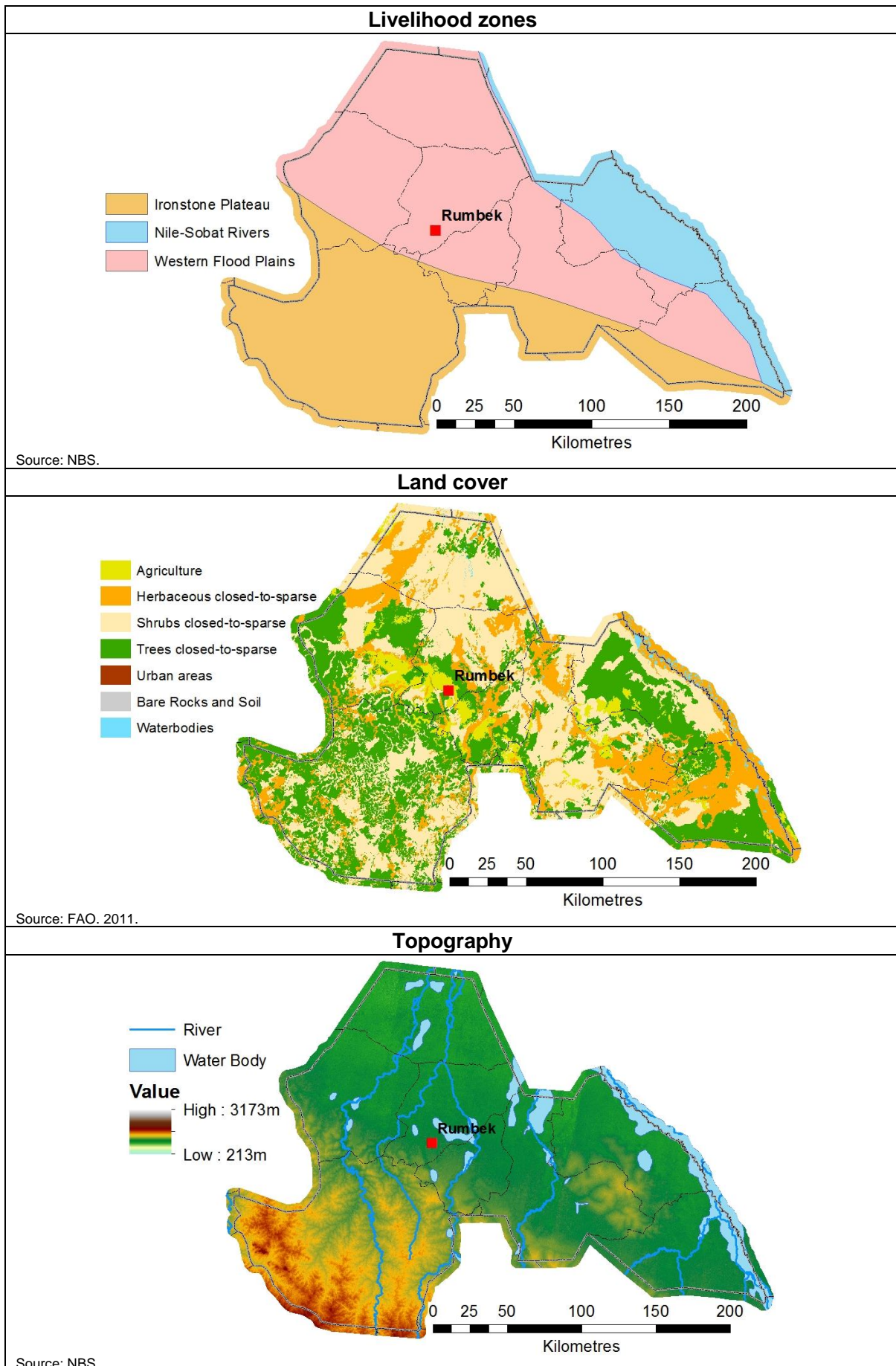
Source: (Map) NBS; (Table)^a WFP. 2013. ANLA; ^b Land scale data applied from FAO. 2011. Land Cover Atlas of the Republic of South Sudan.

Climate chart (Rumbek)

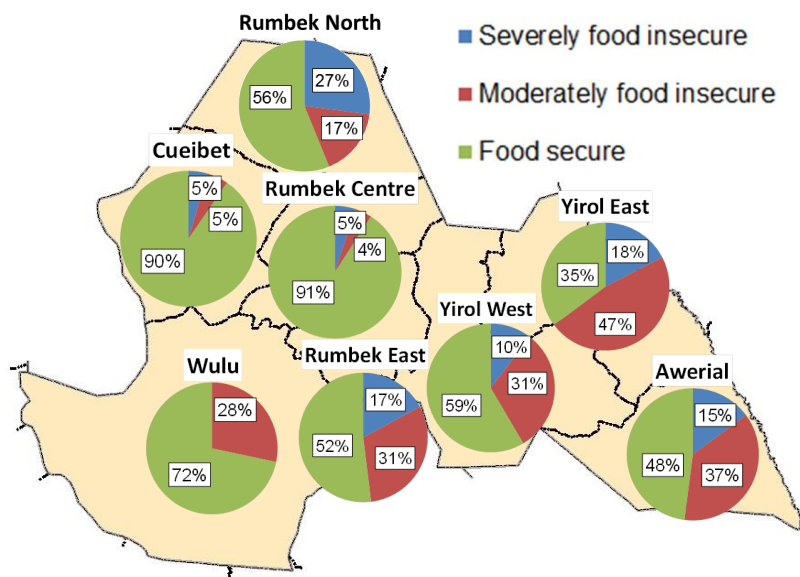
Annual ave. high temp.	33.9°C
Annual ave. low temp.	20.6°C
Average temperature	27.3°C
Ave. annual precipitation	959mm



Source: Climatedata.eu. 2013. Climate Rumbek.
[http://www.climatedata.eu/climate.php?loc=suzz0016&lang=en_\(accessed on 25th August 2013\).](http://www.climatedata.eu/climate.php?loc=suzz0016&lang=en_(accessed on 25th August 2013).)

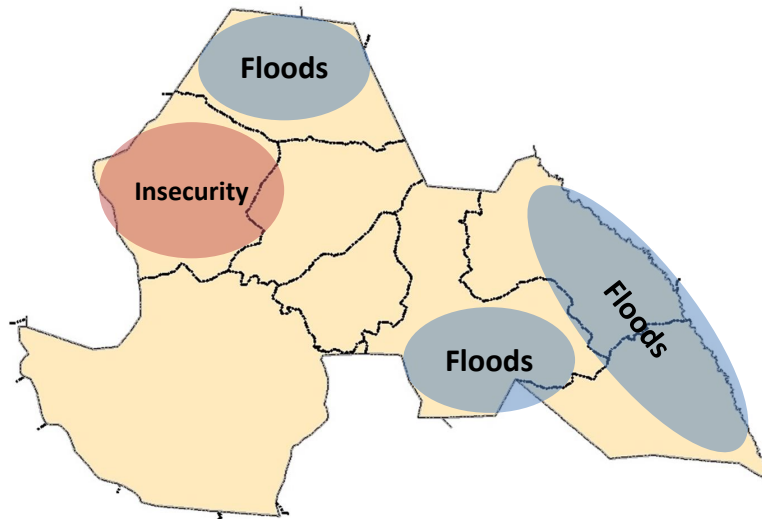


Estimated food security status by county (2013)



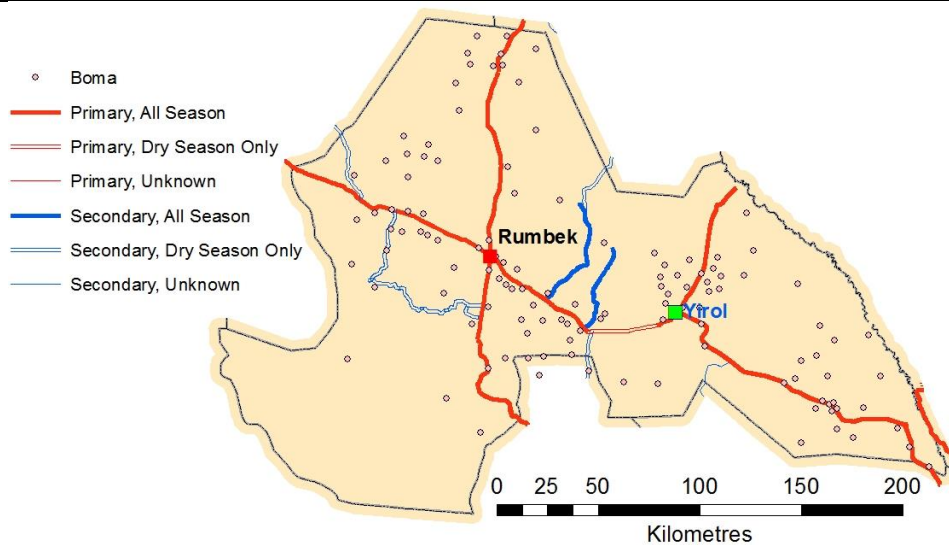
Source: WFP.2013.ANLA.

Insecurity and natural disaster



Source: CAMP survey team 2013.

Road and Boma location



Source: Road (WFP. 2013), Boma location (NBS).

7.2 State Ministry of Agriculture and Forestry (MAF)																																																			
Organogram		Staff																																																	
<pre> graph TD Minister --> DG[Director General] DG --> DA[Directorate of Agriculture] DG --> DF[Directorate of Forestry] DG --> DM[Directorate of Mechanization] DG --> DPB[Directorate of Planning and Budgeting] DG --> DFA[Directorate of Finance and Administration] </pre>		<table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Agriculture</td> <td>60</td> </tr> <tr> <td>Department of Extension</td> <td>(34)</td> </tr> <tr> <td>Department of Horticulture</td> <td>(8)</td> </tr> <tr> <td>Department of Crop Production</td> <td>(16)</td> </tr> <tr> <td>Department of Plant Protection</td> <td>(2)</td> </tr> <tr> <td>Directorate of Forestry</td> <td>45</td> </tr> <tr> <td>Department of Saw Mill</td> <td>(15)</td> </tr> <tr> <td>Department of Agro-forestry and Afforestation</td> <td>(15)</td> </tr> <tr> <td>Department of Utilisation and Marketing</td> <td>(15)</td> </tr> <tr> <td>Directorate of Mechanization</td> <td>17</td> </tr> <tr> <td>Department of Mechanisation and Ox-plough technology</td> <td>(9)</td> </tr> <tr> <td>Department of irrigation and Water conservation</td> <td>(8)</td> </tr> <tr> <td>Directorate of Planning and Budgeting</td> <td>6</td> </tr> <tr> <td>Department of Monitoring and Evaluation</td> <td>(1)</td> </tr> <tr> <td>Department of Budgeting</td> <td>(1)</td> </tr> <tr> <td>Department of Agriculture Information System</td> <td>(3)</td> </tr> <tr> <td>Statistics</td> <td>(1)</td> </tr> <tr> <td>Directorate of Finance and Administration</td> <td>21</td> </tr> <tr> <td>Department of Procurement</td> <td>(2)</td> </tr> <tr> <td>Department of Human Resource</td> <td>(5)</td> </tr> <tr> <td>Department of Information Technology</td> <td>(7)</td> </tr> <tr> <td>Unclassified staff</td> <td>(7)</td> </tr> <tr> <td>Total</td> <td>149</td> </tr> </tbody> </table>		Section	Number of staff	Directorate of Agriculture	60	Department of Extension	(34)	Department of Horticulture	(8)	Department of Crop Production	(16)	Department of Plant Protection	(2)	Directorate of Forestry	45	Department of Saw Mill	(15)	Department of Agro-forestry and Afforestation	(15)	Department of Utilisation and Marketing	(15)	Directorate of Mechanization	17	Department of Mechanisation and Ox-plough technology	(9)	Department of irrigation and Water conservation	(8)	Directorate of Planning and Budgeting	6	Department of Monitoring and Evaluation	(1)	Department of Budgeting	(1)	Department of Agriculture Information System	(3)	Statistics	(1)	Directorate of Finance and Administration	21	Department of Procurement	(2)	Department of Human Resource	(5)	Department of Information Technology	(7)	Unclassified staff	(7)	Total	149
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Source: State MAF.		Source: State MAF.																																																	
Budget		Strategic plan																																																	
Category	2011/12 Budget	2011/12 Outturn	2012/13 Budget																																																
Salary	(Data not available)	(Data not available)	(Data not available)																																																
Operating	(Data not available)	(Data not available)	(Data not available)																																																
Transfers	(Data not available)	(Data not available)	(Data not available)																																																
Others	(Data not available)	(Data not available)	(Data not available)																																																
Capital	(Data not available)	(Data not available)	(Data not available)																																																
Overall total	(Data not available)	(Data not available)	(Data not available)																																																
Lakes State strategic plan (2012-15)																																																			
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Plan	(Information not available)																																																		
Activities	(Information not available)																																																		
Services provided by State MAF and local government																																																			
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<ul style="list-style-type: none"> Technical advice is delivered to farmers by the AEO (Agricultural Extension Officer) in the counties and payams and by extension workers who support farmers voluntarily at the Boma level. State MAF provides training to extension officers and farmers. 																																																			
(Seeds and tools provision)																																																			
<ul style="list-style-type: none"> Seeds, tools, watering cans, and ox-plough attachments are provided by State MAF in some counties. 																																																			
(Demo farm and field day= visit field to share best agricultural practice)																																																			
<ul style="list-style-type: none"> Demo farms, which are about 10 feddan, are established in some counties. 																																																			
(Tractor hiring service)																																																			
<ul style="list-style-type: none"> The hiring charge is SSP 300/feddan in Rumbek East County 																																																			

7.3 Crop			
Services provided by DPs and NGOs			
Organization	Activities	Area	Target
ACROSS	<ul style="list-style-type: none"> • Agriculture training for farmers • Provision of ox-plough attachment and training • Provision of vegetable seeds and fruit seedlings 	Rumbek East and Rumbek Centre Counties	Farmers in the pilot areas
DRDA (Diar for Rehabilitation and Development Association)	<ul style="list-style-type: none"> • Provide agricultural training to farmers • Organise farmers' groups 	Yirol, Rumbek East and Rumbek Centre Counties	Farmers in the pilot areas
FAO	<ul style="list-style-type: none"> • Building CAD office • Provision of seeds 	Rumbek Centre, Rumbek East, Cueibet and Yirol Counties	Farmers in the pilot areas
OXFAM	<ul style="list-style-type: none"> • Training for crop production for farmers • Provision of seeds, tools and ox plough attachments • Creation of community assets • Building community access roads to local market 	Rumbek Centre County	Farmers in the pilot areas
CEFA	<ul style="list-style-type: none"> • Training for crop and vegetable production • Training female farmers • Provision of seeds, tools and ox plough attachments 	Rumbek East and Rumbek Centre Counties	Farmers in the pilot areas
WFP	<ul style="list-style-type: none"> • Provide food to vulnerable people 	8 Counties in Lakes State	Farmers in the pilot areas

*There are a number of DPs and NGOs in the State. The above information collected by CAMP team is shown as examples.

Services provided by private sector

(Tractor hiring)

- Tractor hiring services are provided by private service provider.
- The charge is from SSP 200 to 300/feddan for ploughing.

(Agro-dealer)

- Seed and tool supply system is underdeveloped.
- Some local traders deal with local seeds, tools and some fruit tree seedlings.

(Financial institution)

- Some finance institutions are available mainly in Rumbek.
- SUMI provides loans to cooperatives groups.
- DRDA and BRAC provide financial support to women's groups.

*1 SUMI: Sudan Micro Finance Institution

*2 DRDA: Diar for Rehabilitation and Development Association

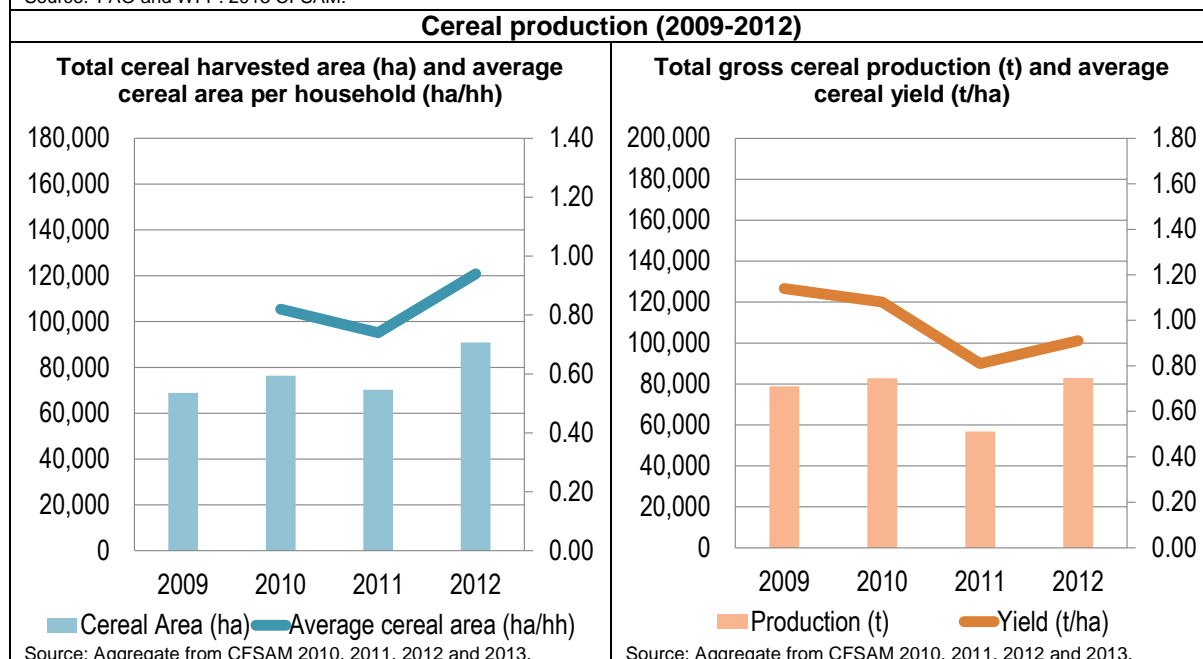
*3 BRAC: Bangladesh Rural Advancement Committee

Market						
Major agricultural products and their origin (Rumbek, May 2013)						
(Crop)			(Others)			
Item	Type	Origin	Item	Type	Origin	
Sorghum	Import	-	Okra	Import	-	
	Domestic	Lakes State		Domestic	Lakes State	
Maize flour	Import	Uganda	Jew's mallow	Import	-	
	Domestic	-		Domestic	Lakes State	
Groundnut	Import	-	Tomato	Import	Uganda	
	Domestic	Lakes State		Domestic	Lakes State	
Rice	Import	Uganda	Onion	Import	Uganda, Tanzania	
	Domestic	-		Domestic	-	
			Cabbage	Import	Uganda	
				Domestic	-	
			Carrot	Import	Uganda	
				Domestic	-	
			Amaranthus	Import	-	
				Domestic	Lakes State	
Source: CAMP survey team 2013. * This is not a representative sample.			Source: CAMP survey team 2013. * This is not a representative sample.			
Market price (Retail price, Rumbek, May 2013)						
Item	Unit	Price (SSP) (range)				
		Low season			High season	
Sorghum (Domestic)	Basin (10kg)	Dec-Jan	25	-	75	Feb-May
Maize flour (Imported)	25kg	Nov-Dec	40	-	70-90	May-Sep
Groundnut (Domestic)	Basin	Aug	10	-	30	May-July
Tomato (Imported)	1kg	Nov-Mar	17	-	25	May-Sept
Onion (Imported)	1kg	Jan-June	10	-	20	July-Sep
Source: CAMP survey team 2013. * This is not a representative sample.						
Transportation cost (Rumbek, May 2013)						
Type	Unit	Currency	Cost (range)			
Hiring charge(Kampala-Rumbek)	Truck (15,000kg)	Ush	25,000			
Customs	Truck (15,000kg)	SSP	8,000			
State tax (Tax rate not available)	Truck (15,000kg)	SSP	5,000			
Source: CAMP survey team 2013. * This is not a representative sample.						
Taxes and charges (Rumbek, May 2013)						
(Wholesaler size 4mx4m)						
Type	Cost (SSP)	Frequency				
Licence	260	Annually				
Trade union fee	25	Monthly				
(Retailer)						
Type	Cost (SSP)	Frequency				
Licence	75	Annually				
Rent	200	Monthly				
Trade union fee	30	Monthly				
Source: CAMP survey team 2013. * This is not a representative sample.						

Crop production	
Farming household (%) (2012)	83
Farming household (No.) (2012)	96,581
Total cereal area (ha) (2012)	90,880 (7 st)
Cereal gross yield (t/ha) (2012)	0.91 (5 th)
Gross cereal production (t) (2012)	82,948 (6 th)
Average cereal area per household (ha/hh) (2012)	0.94 (5 th)



Source: FAO and WFP. 2013 CFSAM.



Crop production by livelihood zone					
Western Flood Plains		Ironstone Plateau		Nile-Sobat Rivers	
Major agricultural products					
Crop	Vegetable	Crop	Vegetable	Crop	Vegetable
Sorghum	Okra	Sorghum	Tomato	Sorghum	Pumpkin
Maize	Pumpkin	Pearl millet	Onion	Maize	Okra
Beans	Jew's mallow	Cash Crop	Sweet potato	Cash Crop	Spider plant
Green gram	Amaranthus	Green gram		Tobacco	
Pearl millet	Tomatoes	Sesame			
Cassava	Sweet potato	Groundnut			
Cash Crop	Kale (Sukuma weeki)				
Groundnut	Onion				
Green gram	Spider plant				
Sesame	(Tamalika)				
Sunflower					

Cropping calendar												
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum (long)	H	L	L	S								H
Sorghum (short)						L	S		H	H		
Maize				L	S		H	H				
Groundnut			L	L	S			H				
Pearl millet		L	L	L	S					H	H	
Green gram				L	S	S			H	H		
Okra			L	S	H	H	S	H	H	H	H	
Pumpkin			L	S	S	H	H	H				
Tomato	S	H	H	L	S		S	H	S	H		
L Land preparation			S Sowing									

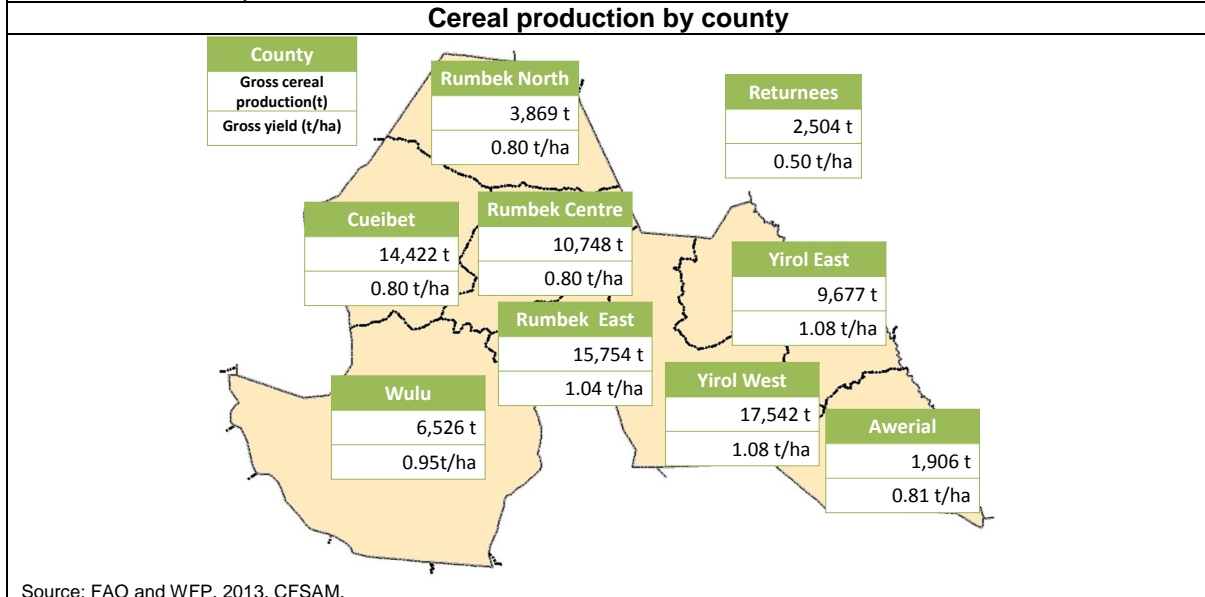
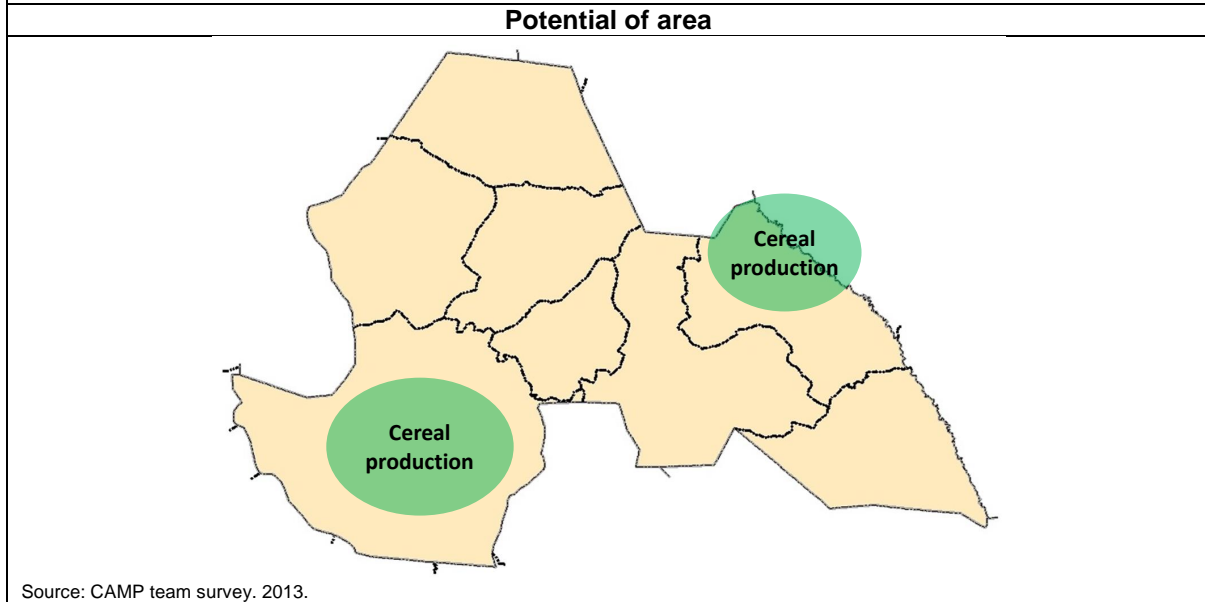
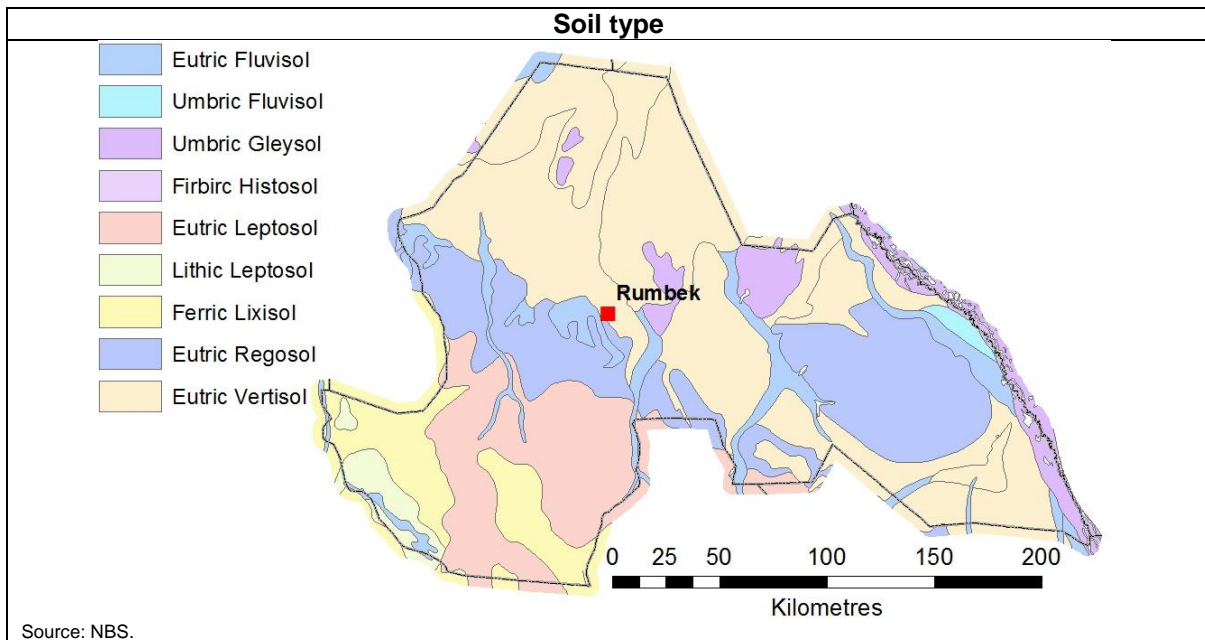
Source: CAMP survey team. 2013.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum			L	S	S				H (short)	H (long)		
Pearl millet			L	S	S						H	H
Green gram			L	S	S					H	H	
Sesame			L	S	S						H	
Groundnut			L	S	S			H	H			
Tomato			L	S	S			H	H	H		
Onion			L	S	S						H	
Sweet potato			L	L	T						H	
L Land preparation			S Sowing								H Harvesting	

Source: CAMP survey team. 2013.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum			L	L	S	S					H	H
Maize			L	L	S	S					H	H
Tobacco					L	S					H	H
Pumpkin			L	L	S			H	H	H	H	
Okra			L	L	S			H	H	H	H	
Spider plant			L	L	S			H	H	S	H	
L Land preparation			S Sowing					T Transplanting			H Harvesting	

Source: CAMP survey team. 2013.



Cross cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Dispute over grazing land among pastoralists • Dispute between urban and sub-urban communities due to the expansion of urban areas without sufficient consultation with the sub-urban communities <p>(Gender)</p> <ul style="list-style-type: none"> • Few gender disparity issues in the state apart from land ownership issues of women <p>(Security)</p> <ul style="list-style-type: none"> • Cattle raiding happens frequently between the counties and with other states. • Armed robbery in some areas • In general, security has been improved by the caretaker governor appointed by the national government. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> • Living standards of the returnees and IDPs are lower than the average in the rural areas. <p>(HIV)</p> <ul style="list-style-type: none"> • The infection rate is not surveyed but some NGOs are conducting educational activities for HIV prevention. <p>(Others)</p> <ul style="list-style-type: none"> • Crop damaged by wild animals has been a serious problem for farmers. • Revenge attacks for cattle raiding make the situation worse. • Short rainy season (about 5 months) lowers agricultural production.
Opportunities
<p>Crop production</p> <ul style="list-style-type: none"> • Sufficient manpower • Soil is relatively fertile.
Challenges
<p>Overall</p> <ul style="list-style-type: none"> • Feeder roads are not well established. • Poor access to financial institutions • High tax rates • High transport costs • High labour costs
<p>Crop</p> <ul style="list-style-type: none"> • Market information system is not well established for the farmers. • Low land is affected by floods. • Drought occurs frequently. • Crop damaged by wild animals is getting serious. • Farmers do not have means of controlling pests and diseases. • Supply chain for improved seeds and agricultural tools is underdeveloped. Improved seeds are rarely available in the state. • Training opportunities for farmers are not sufficient due to lack of funds. • In some counties, demo farm has not been installed. • Human resource competes between farming and livestock activities in busy period.

7.4 Forestry

On-going and proposed projects

List of on-going projects

Project name	Objectives/activities	Duration	Annual cost
Agro-forestry (FAO)	Promote agro-forestry activities	Ended 2012	(Information not available)
Agro-forestry (ACROSS)	Promote agro-forestry activities	On-going	(Information not available)

Source: CAMP team survey, 2013.

List of proposed projects

Project name	Objectives/activities	Duration	Annual cost
Afforestation	Develop plantation	(Information not available)	(Information not available)
Agro-forestry and extension	Awareness building for agro-forestry development	(Information not available)	(Information not available)
Nursery development	Propagate teak seedling for afforestation	(Information not available)	(Information not available)
Saw mill rehabilitation	Rehabilitate saw mill and increase timber production	(Information not available)	(Information not available)
Capacity development	Training of extension workers	(Information not available)	(Information not available)
Lulu and honey production	Develop lulu and honey production	(Information not available)	(Information not available)
Gum Acacia production	Develop gum acacia production	(Information not available)	(Information not available)

Source: CAMP team survey, 2013.

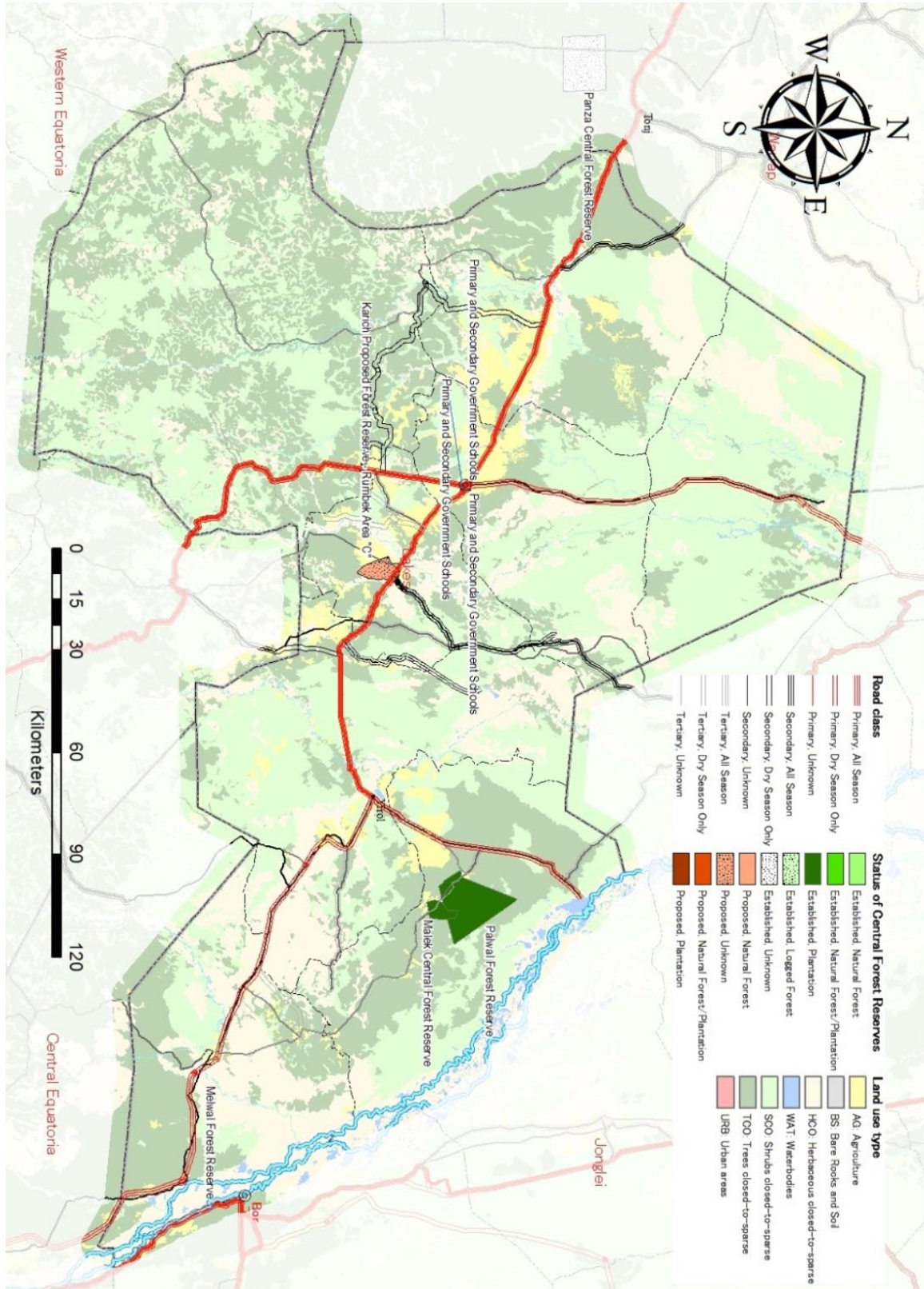
Land cover percentage to total area

County	AG	TCO	SCO	HCO	URB	BS	WAT	Total area	Total area (ha)
Awerial	2.2%	36.6%	13.2%	46.8%	0.0%	0.3%	0.9%	100.0%	450,702
Cueibet	8.4%	46.4%	28.2%	17.0%	0.0%		0.0%	100.0%	520,582
Rumbek Centre	6.5%	22.6%	50.4%	20.3%	0.3%		0.0%	100.0%	387,259
Rumbek East	13.4%	38.2%	24.5%	23.9%	0.0%		0.0%	100.0%	240,785
Rumbek North	0.8%	8.4%	71.3%	19.0%	0.0%		0.4%	100.0%	480,511
Wulu	1.0%	51.1%	32.9%	13.3%	0.0%	1.4%	0.3%	100.0%	1,183,090
Yirol East	4.7%	47.3%	36.2%	10.1%			1.6%	100.0%	500,250
Yirol West	5.3%	15.0%	50.6%	28.7%	0.1%		0.3%	100.0%	644,329
Total	4.2%	35.5%	38.5%	20.9%	0.0%	0.4%	0.5%	100.0%	4,407,508

Source: FAO, 2011. *Land cover atlas of South Sudan*. Rome: FAO.

Legend: AG=Agriculture, TCO=Tree closed-to-sparse, SCO=Shrubs closed-to-sparse, HCO=Herbaceous closed-to sparse, URB=Urban areas, BS=Bare Rocks and Soil, and WAT=Waterbodies.

Location of Central Forest Reserves and land cover in 2009



Source: NBS.

7.5 State Ministry of Animal Resources and Fisheries (MARF)																																	
Organogram		Staff																															
<pre> graph TD Minister --> DG[Director General] DG --> D1[Directorate Finance and Administration] DG --> D2[Directorate of Livestock Development] DG --> D3[Directorate of Fisheries] DG --> D4[Directorate of Extension, Research and Training] </pre>		Breakdown of information not available <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Section</th> <th style="text-align: center;">Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Finance and Administration</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Department of Finance</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Planning</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Human Resources</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Procurement</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Administration</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Directorate of Livestock Development</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Department of Animal Health</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Animal Production and Range Management</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Directorate of Fisheries</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Directorate of Extension, Research and Training</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Department of Extension</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Department of Research and Training</td> <td style="text-align: center;">(-)</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">140</td> </tr> </tbody> </table>		Section	Number of staff	Directorate of Finance and Administration	-	Department of Finance	(-)	Department of Planning	(-)	Department of Human Resources	(-)	Department of Procurement	(-)	Department of Administration	(-)	Directorate of Livestock Development	-	Department of Animal Health	(-)	Department of Animal Production and Range Management	(-)	Directorate of Fisheries	-	Directorate of Extension, Research and Training	-	Department of Extension	(-)	Department of Research and Training	(-)	Total	140
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Category	2010/11 Budget	2011/12 Outturn	2012/13 Budget																														
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Source: State MARF. Unit: SSP		Source: State MARF.																															
Service provided by State MARF and local government																																	
<p>(Animal production services)</p> <ul style="list-style-type: none"> • Technical advice is provided to livestock keepers. <p>(Animal health services)</p> <ul style="list-style-type: none"> • Vaccination • Drugs on cost recovery • Disease inspection and control • Treatment and animal health advice • Training of CAHWs (Community Animal Health Workers) 																																	

7.6 Livestock								
Service provided by National government institutions								
No national government institutions are in the state.								
Service provided by DPs and NGOs								
Organisation	Activities				Area	Period		
VSF (Vétérinaires Sans Frontières) -Belgium	<ul style="list-style-type: none"> Strengthening institutional capacity of MAF and MARF Improving productivity Animal health, production, food security recovery and livelihood programs Training of CAHWs 				Rumbek North and Centre Counties (constructed a slaughter house in Rumbek Centre and North Counties)	2009-2013		
Oxfam GB	<ul style="list-style-type: none"> Animal health, animal production, food security and livelihood programs Community, public work and WASH (Water, Sanitation and Hygiene) program Cash transfer to returnees households Training of CAHWs 				Rumbek North, Rumbek Centre and Cueibet Counties (constructed a slaughter house in Cueibet County)	Since 1993		
FAO	<ul style="list-style-type: none"> Animal health activities Supply and transportation of vaccines through State MARF Training of CAHWs Conduct FFS (Farmer Field Schools) Training of State MARF Staff Provided 1 hardtop and pickup land cruisers vehicles for State MARF 				Rumbek Centre Country	Since 2003		
NPA (Norwegian People's Aid)	<ul style="list-style-type: none"> Food security programs Provides drugs on cost recovery basis Training of CAHWs 				Yirol East and West Counties	Since 1995		
GIZ	<ul style="list-style-type: none"> Implementing fisheries project Capacity building 				Yirol East County	2008-2012		
Source: CAMP survey team. 2013. *CAHW: Community Animal Health Worker								
Services provided by private sector								
<p>(Agro-dealer)</p> <ul style="list-style-type: none"> Some agro-dealers supply veterinary drugs. <p>(Slaughter house)</p> <ul style="list-style-type: none"> All the services in the slaughter houses are managed by the local government. <p>(Livestock market/auction yard)</p> <ul style="list-style-type: none"> (Information not available) 								
Livestock population								
Type of Animal	Population by county							
	Awerial	Cueibet	Rumbek Centre	Rumbek East	Rumbek North	Yirol East	Yirol West	Wulu
Cattle	300,000	285,000	80,000	60,000	250,000	150,000	180,000	20,000
Sheep	60,000	55,000	42,000	39,000	43,000	46,000	50,000	25,000
Goat	65,000	63,000	62,000	55,000	61,000	50,000	54,000	40,000
Poultry	5,000	20,000	10,000	7,000	2,000	6,000	3,000	15,000
Pig	N/A	N/A	N/A	N/A	20	N/A	N/A	N/A
Total	430,000	423,000	553,000	161,000	356,020	517,020	873,040	1,390,060
Source: State MARF. N/A: Data not available								

Livestock diseases		
Type of Animal	Type of disease	Outbreak area in last 2 years
Cattle	Haemorrhagic septicaemia	All counties except Rumbek East County between 2011 and 2012
	Trypanasomiasis	Cueibet County
	East Coast fever	Awerial County
	Black quarter, Contagious bovine pleuropneumonia, Foot and mouse disease, Anthrax, Brucellosis	There was no outbreak in the last 2 years.
Sheep and goat	Peste des petits ruminants, Contagious caprine pleuropneumonia, Internal parasites, Mange, Foot rot	There was no outbreak in the last 2 years.
Poultry	Newcastle disease, Fowl pox, Infectious bronchitis, Chronic respiratory disease, Salmonellosis, Internal parasites	There was no outbreak in the last 2 years.
Equine	(Information not available)	(Information not available)

Source: State MARF.

]

Animal health issues

- Lack of drugs and equipment
- Lack of animal health regulations and laws
- Insufficient qualified animal health personnel
- Lack of offices at the counties
- Lack of laboratories for disease diagnosis

Market

Type of livestock and livestock product	Market
Butcheries	Rumbek Centre (domestic)
Auction yard (all livestock species)	Rumbek Centre (domestic)
Butcheries and auction yard	Yirol West (Yirol Town)
Live animal market (cattle, sheep and goat)	Yirol West (Agany) Yirol East (Nyang)
Live animal market (cattle, sheep and goat)	Rumbek North (Auction yard)
Live animal market (cattle, sheep and goat)	Rumbek East (Bar-Pakeny)
Live animal market (mostly cattle)	Awerial
Live animal market	Wulu
Honey market	

Source: CAMP survey team. 2013.

Market price

Counties	Price (SSP) (range)							
	Awerial	Cueibet	Rumbek Centre	Rumbek East (Bar-pakeny)	Rumbek North	Yirol East	Yirol West	Wulu
Cattle	500-2,000	400-800	500-1,000	500-800	400-700	500-800	500-1,000 450-700	N/A
Sheep	80-200	100-200	150-300	100-150	100-150	100-200	100-200	N/A
Goat	80-200	100-200	200-400	100-150	100-150	100-150	100-200	N/A
Chicken	Hen=20 Cock=40	Hen=15 Cock=30	Hen=30 Cock=50	Hen=20 Cock=40	Hen=30 Cock=40	Hen=20 Cock=40	Hen=20 Cock=40	Hen=15 Cock=30
Milk/1litre	5	5	5	5	2	5	5	N/A
Meat/1kg	10	10	15	10	10	10	10	10
Egg/each	2	2	2	2	N/A	2	2	2
Honey/1litre	N/A	20	30	20	N/A	N/A	20	10
Hide and skin	N/A	N/A	Hide=2 Skin=2	N/A	N/A	N/A	N/A	N/A

Source: CAMP survey team. 2013.

* This is not a representative sample.

N/A: Data not available

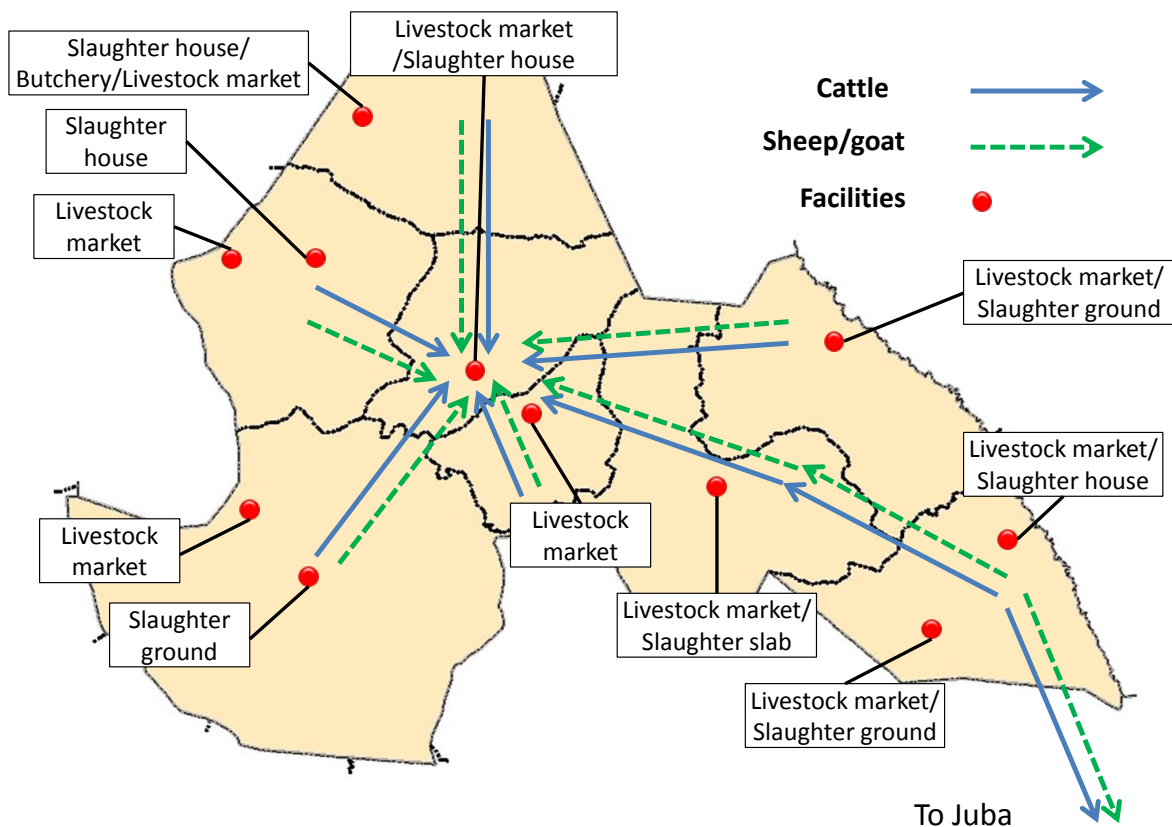
Taxes and charges		
Type	Cost (SSP)	Frequency
Live animal tax (Cattle, sheep and goat)	10% of the price for both seller and buyer	Daily in auction yard
Live bird tax	2/chicken	Daily in the market
Meat inspection fee	10/cattle	Daily at slaughter house
Hide charge at slaughter house	5/each hide	Every 2-3 months
Skin charge at slaughter house	3/each skin	Every 2-3 months

Source: CAMP survey team. 2013.
* This is not a representative sample.

Major livestock species and products by livelihood zone					
Western Flood Plains		Ironstone Plateau		Nile-Sobat Rivers	
Type of Animal	Breed	Type of Animal	Breed	Type of Animal	Breed
Cattle	Local Nilotic	Cattle	Local Nilotic	Cattle	Local Nilotic
Sheep	Local	Sheep	Local	Sheep	Local
Goat	Local	Goat	Local	Goat	Local
Chicken	Local	Chicken	Local	Chicken	Local
Pig (Rumbek North)	Local			Bee (Wulu)	Local
Livestock products		Livestock products		Livestock products	
<ul style="list-style-type: none"> • Meat (beef, mutton, pork and poultry) • Milk • Egg • Hide and skin 		<ul style="list-style-type: none"> • Meat (beef, mutton, pork and poultry) • Milk • Egg • Hide and skin 		<ul style="list-style-type: none"> • Meat (beef, mutton, pork and poultry) • Milk • Egg • Hide and skin 	

Source: CAMP survey team. 2013.

Livestock related facilities and trade routes



Source: CAMP survey team. 2013.

Cross-cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • No clear land tenure policies • The repatriation of the IDPs and returnees from the North have caused tenancy inconvenience, as some of the lands allocated or meant for livestock infrastructures have been occupied by the returnees. <p>(Migration)</p> <ul style="list-style-type: none"> • Like any other pastoral communities, the livestock keepers in Lakes State migrate seasonally from their permanent settlements to the “Toichs” typically along the River Nile. Since it is the only permanent water source during dry season, animals accumulate leading to overgrazing, pervasive diseases transmission and conflicts over resources. • Seasonal migratory routes are affected by the accessible and availability of the pastures and water resources as well as the security status in the area. <p>(Conflict and insecurity)</p> <ul style="list-style-type: none"> • Seasonal migration of livestock keepers is occasionally accompanied with lots of challenges, conflicts over resources, youth disputes over women and cattle rustling. It sometimes results in deadly inter-communal clashes leading to death of hundreds and this in turns causes insecurity. <p>(Gender disparities)</p> <ul style="list-style-type: none"> • In Lakes State, few gender disparities, but traditional beliefs prohibit the involvement of women in some livestock keeping activities. (e.g. Going after the cattle or taking cattle for grazing and having full ownership of the livestock especially cattle.) • After the war, with an increase in the number of widows, they have started owning livestock. <p>(Drought and floods)</p> <ul style="list-style-type: none"> • No droughts occur since the state lies within the Western Flood Plains. • It is frequently affected by seasonal floods that usually happen due to heavy rain and excess flow of water from the River Nile.
Opportunities
<ul style="list-style-type: none"> • Huge potential of livestock population • Growing human population in the urban areas increases the demand of livestock products. • Huge hide and skin production • Vast land and abundant rangelands with good quality pastures and water sources
Challenges
<ul style="list-style-type: none"> • Lack of capital funds and budgetary constraints livestock improvement. • Insecurity and resource based conflicts (i.e. cattle rustling) • Disease outbreaks • Lack of drugs, vaccines and equipment • Lack of animal health regulations and laws • Inadequate qualified staff and lack of offices at the county level • Lack of livestock infrastructure, poor roads and other facilities at the county level • Lack of transport means

7.7 Fisheries

Numbers of fishing households (ANLA 2012)		24,498	
Fish production	Unknown. Most of the volume comes from Shambe in Yirol East, but the rivers and lakes are very important in the dry season, and provide the fresh fish that is eaten in Rumbek, for which there is a very great demand. There is no ice availability in the state.		
Fish exports	From the eastern parts of the state, Yirol East County, next to the Nile river, fish is exported both north to Sudan and south to Juba. Before the border closed, boats would visit Shambe and buy fresh and dried fish which was taken north to Khartoum. Dry fish from Lakes is traded throughout Warrap, NBG and WBG States, and of course to Rumbek and other larger towns in the state. Small fish from rivers and lakes are dried and sold in towns.		
Fish imports	Uganda pelagic fish, Daga'a and salted catfish and smoked Nile perch, is in the markets at Rumbek.		
Seasonality	All year but increases in the wet season in the Nile and flood plains, but the river and lake fishery is most active in the dry season.		
Landing sites	Many permanent settlements on the Nile in Yirol East and Shambe. Fishermen there are members of a co-operative. Also temporary fishing camps near swampland near to Rumbek and elsewhere where there is permanent water in the dry season. The fresh fish trade overland sometimes stops in the wet season due to poor roads. Poor security in some Eastern parts of the state.		
Vessels	Planked and dugout canoes. (steel canoes used mainly for transport)		
Informal taxation	It is haphazard (1 in 10 fish usually) and highly resented. Transport taxes are high on fish from Uganda.		
Investment	A Chinese group has put forward a proposal to ship fish from Shambe down to Juba but as at September 2013 no development had occurred.		

Aquaculture

There is no aquaculture in the state. Much of the state appears unsuitable due to flooding.

Post- harvest and marketing

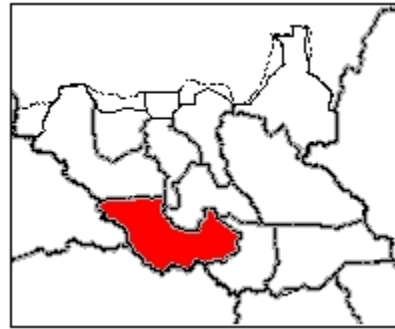
A large proportion of the fish produced in Lakes is dried where it is sold mainly in plaited strips. If from the inland areas in strips (catfish) or if small, whole. The small dried fish is often made into Mandesha, which is easily transported and highly popular. The demand for fresh fish is high and largely unsatisfied. Rumbek (unless noted) prices are given below. (Photo: Drying fish Shambe)



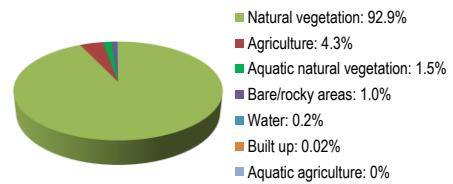
Species	Presentation	SSP/kg	Species	Presentation	SSP/kg
Clarius spp	Dried plait	42.65	Gymnarchus niloticus	Fresh	21.09
Distichotus sp	Dried plaits	10.83	Heterotus niloticus	Fresh	5.01 Shambe
Heterotus niloticus	Dried plaits	54.05	Clarius spp	Sun dried	41.67
Lates niloticus	Dried plaits	59.70	Heterotus niloticus	Sun dried	48.78
Protopterus spp	Dried plaits	49.30	Uganda pelagics	Sun dried	25.21
Clarius spp	Fresh	6.37 Shambe			

8 Western Equatoria State (Capital: Yambio)

8.1 Basic Information	
Population (2008) ^a	619,029 (8 th) Male: 318, 443 Female: 300, 586
Projected population (2013) ^b	731,098 (9 th)
Area ^c	79,120 km ² (3 rd)
No. of Counties, Payams and Bomas (2009) ^d	10 Counties
	48 Payams
	195 Bomas
Food secure population (2012) ^b	77% (1 st)
Access to improved drinking water (2009) ^e	40% (9 th)
Literacy rate (15-24 years old) (2009) ^e	43% (5 th)
Primary school gross enrolment rate (GER) (2010) ^f	52% (8 th)



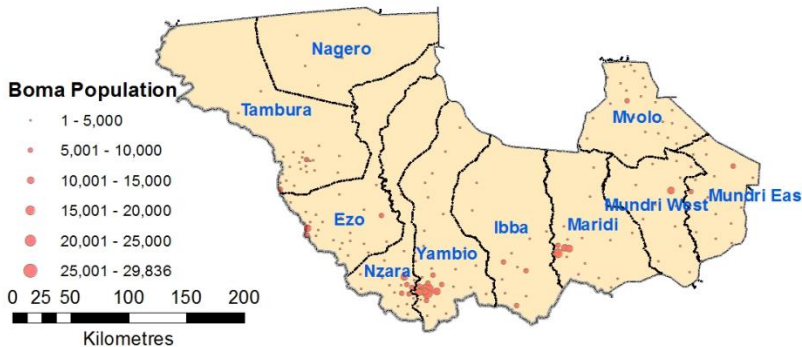
Land cover^g



Source: ^a SSCSE. 2010. Southern Sudan Counts: Tables from the 5th Sudan Population and Housing Census, 2008; ^b WFP. 2013. ANLA; ^c FAO. 2011. Land Cover Atlas of the Republic of South Sudan; ^d Origina data source of NBS. 2012. NBHS 2009; ^e NBS. 2012. NBHS 2009; ^f MoE. 2010. EMIS; ^g NBS. 2011. South Sudan Statistical Yearbook 2011.

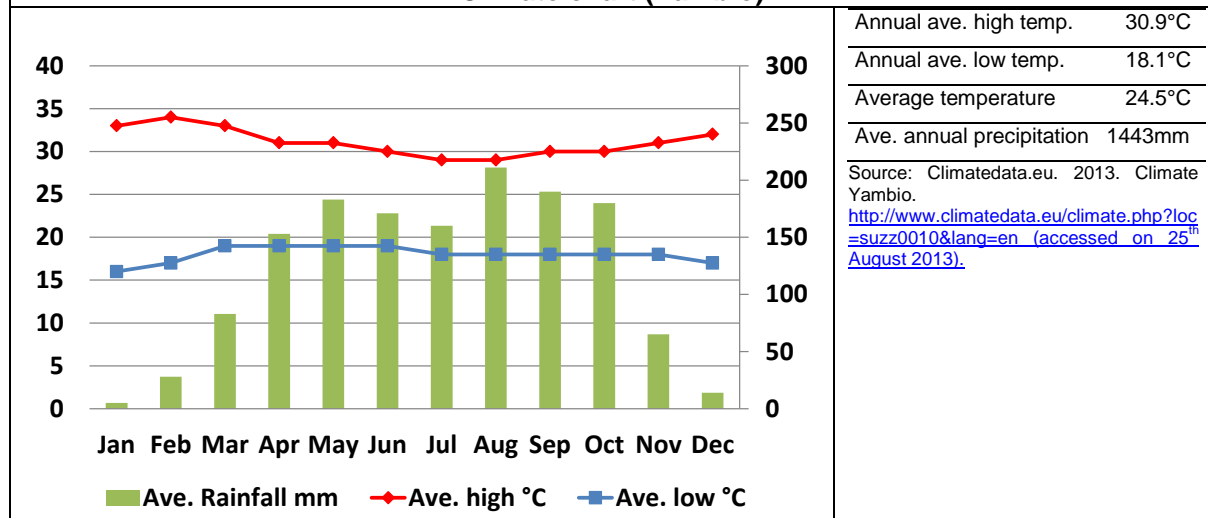
Administrative districts (counties)

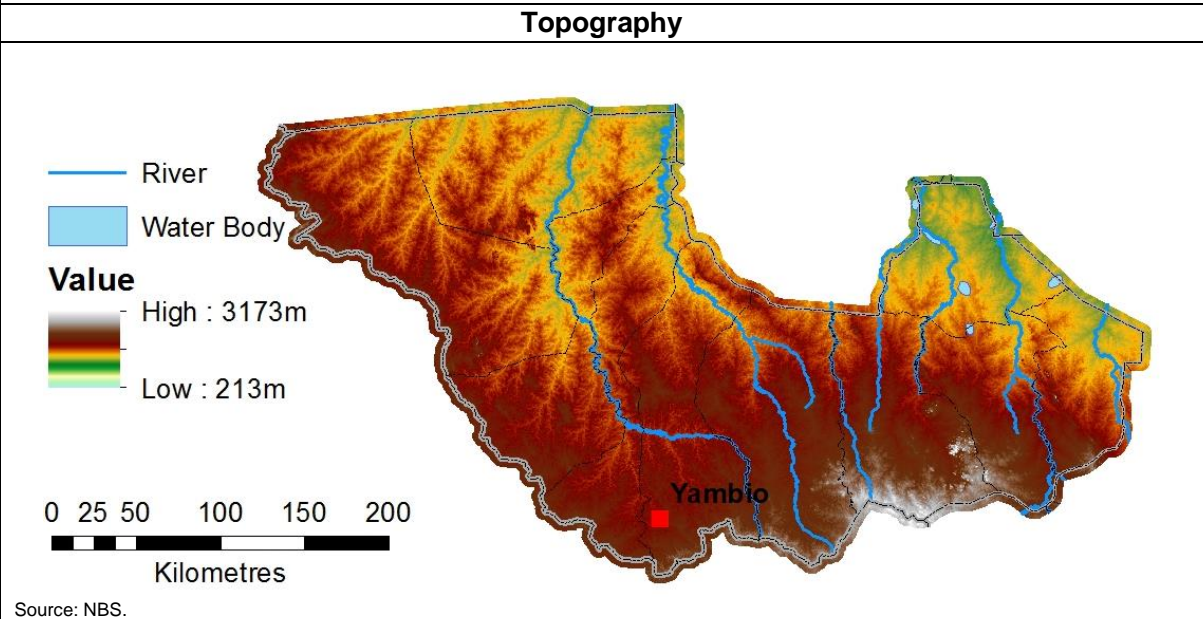
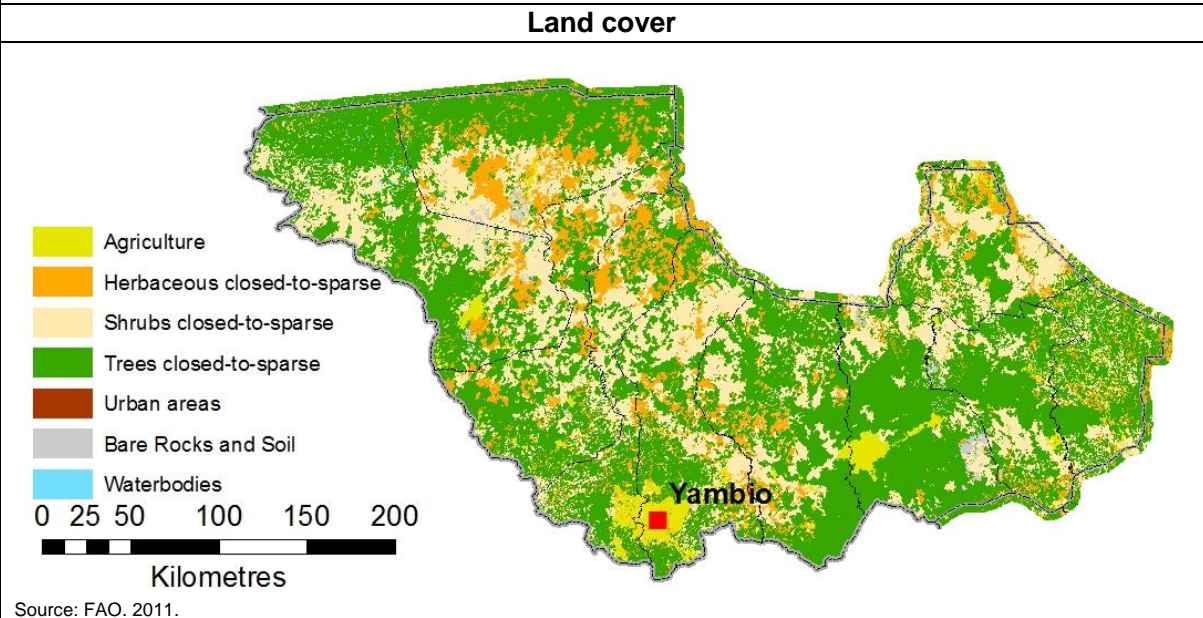
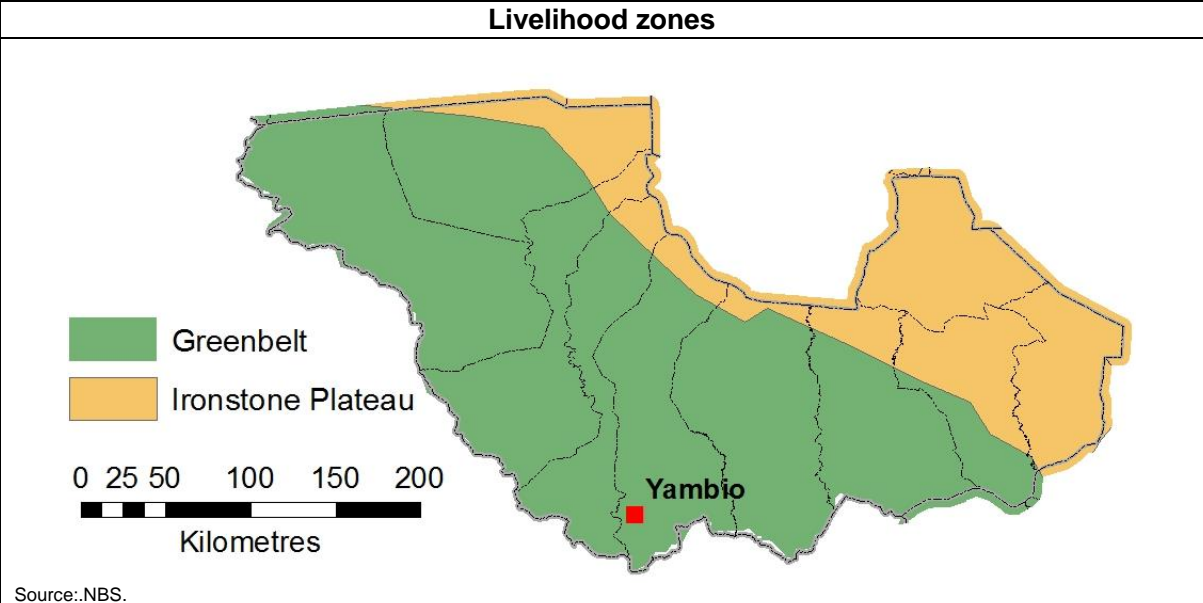
County	Estimated Population (2013) ^a	Pop. density (ppl/km ²) ^b
Mvolo	94,325	16.4
Mundri East	92,495	19.4
Maridi	92,173	11.9
Ezo	88,863	11.0
Nzara	75,166	11.6
Tambura	63,331	5.0
Nagero	55,269	6.0
lbba	55,059	5.6
Mundri West	47,893	8.2



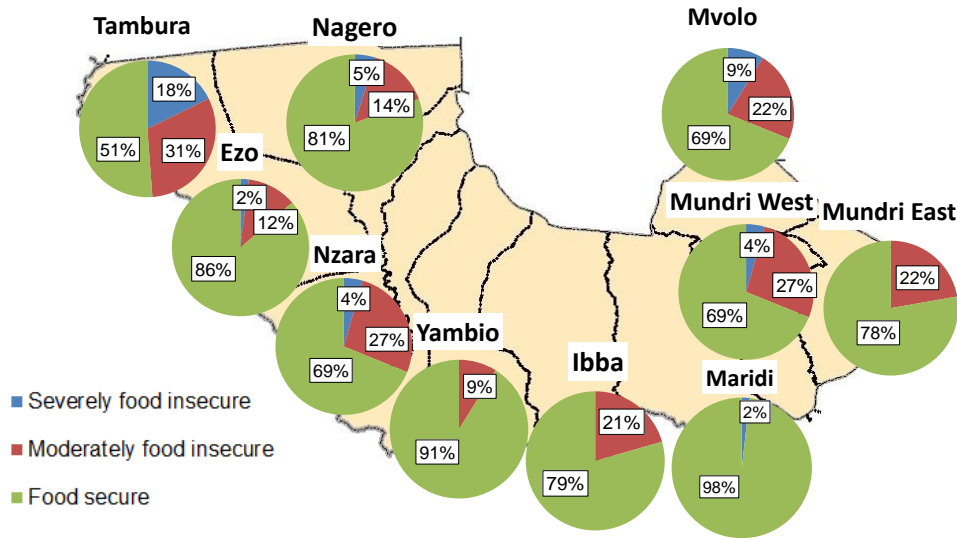
Source: (Map) NBS; (Table)^a WFP. 2013. ANLA; ^b Land scale data applied from FAO. 2011. Land Cover Atlas of the Republic of South Sudan.

Climate chart (Yambio)



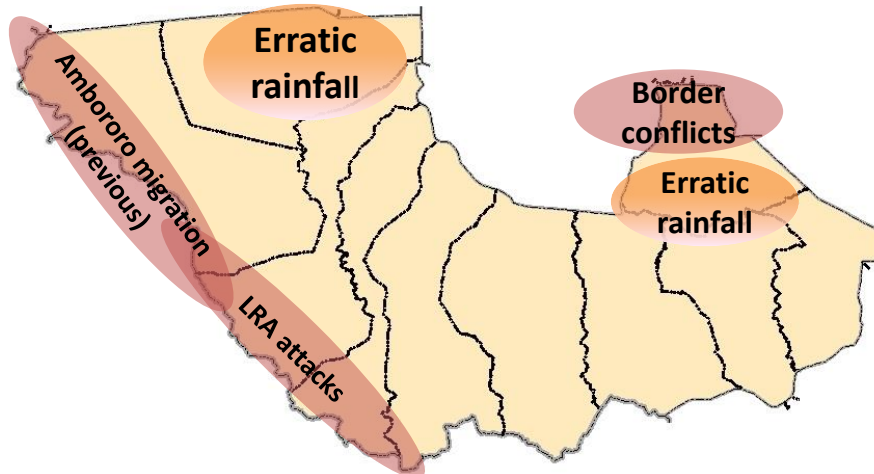


Estimated food security status by county (2013)



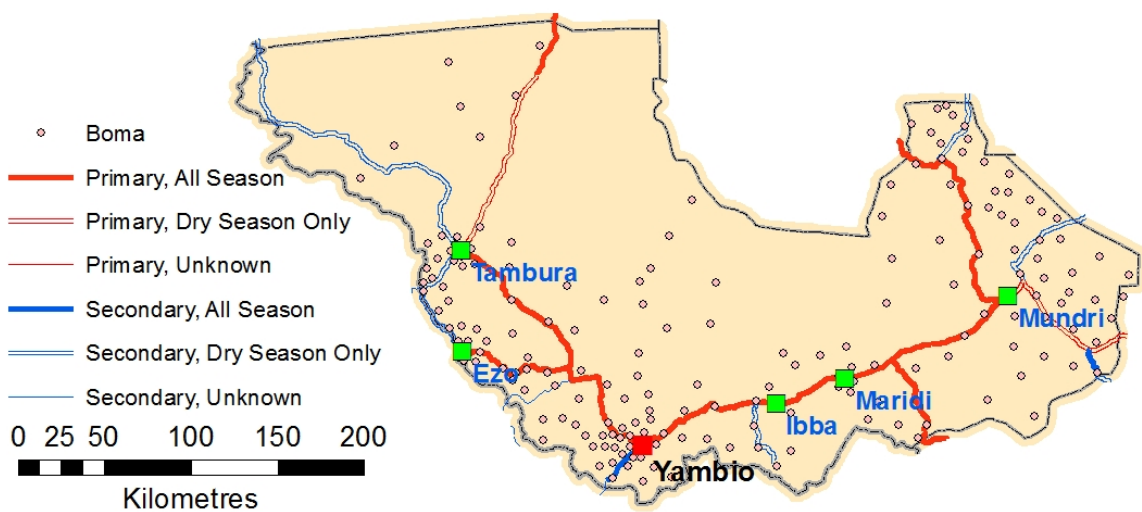
Source: WFP. 2013. ANLA.

Insecurity and natural disaster



Source: CAMP survey team 2013.

Road and Boma location



Source: Road (WFP. 2013), Boma location (NBS).

8.2 State Ministry of Agriculture, Cooperatives and Environment (MACE)																																					
Organogram		Staff																																			
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Services provided by State MACE and local government																																					
<p>(Technical advice)</p> <ul style="list-style-type: none"> • Technical advice is provided through chiefs, and sub-chiefs and headmen in order to increase effectiveness of their activities. • Radio program is used to transfer agriculture-related information. <p>(Seed and tool provision)</p> <ul style="list-style-type: none"> • Seeds and tools are provided in cooperation with DPs and NGOs. <p>(Demo farm and field day= visit to field to share best agricultural practices)</p> <ul style="list-style-type: none"> • Demo plots and on-farm trials are installed. • Field day is organised annually. <p>(Tractor hiring service)</p> <ul style="list-style-type: none"> • (Information not available) 																																					

8.3 Crop

Services provided by DPs and NGOs

Organisation	Activities	Area	Target
Action Africa Help International	<ul style="list-style-type: none"> • Technical support to farmers • Provide tools, seeds and rice mill 	Yambio County	Farmers in the pilot areas
FARM project/USAID	<ul style="list-style-type: none"> • Seeds provision • Training farmers and extension workers • Install demo plots • Land preparation support (80% of the charge will be supported by the project) 	Yambio, Maridi and Mundri West Counties (original areas) Nzara and Mundri East Counties (newly added on 2013)	Farmers in the pilot areas (FBOs: Farmer-based organisations)
WFP	In order to develop agriculture in WES, it purchases crop from farmers through Purchase for Progress (P4P) project	Yambio, Nzara, and Ibba Counties	Farmers in the pilot areas
GIZ	<ul style="list-style-type: none"> • Training farmers • Seeds and tools provision • Technical support for fish farming • Building ponds • Greenhouse (shade house) provision 	Yambio, Nzara and Ibba Counties	Farmers in the pilot areas
World Vision	<ul style="list-style-type: none"> • Technical support (field school) • Provide grinding mill for value addition 	Yambio County	Farmers in the pilot areas
BRAC (Bangladesh Rural Advanced Committee)	<ul style="list-style-type: none"> • Training farmers in demo plots especially vegetable cultivation techniques • Seeds and tools provision • Ox and ox-plough attachment provision • Poultry farming 	Yambio County	Farmers in the pilot areas (especially women)
Inter SOS	<ul style="list-style-type: none"> • Provide tools and seeds to farmers • Deliver trainings to farmers 	Ezo, Yambio	IDPs and returnees
Catholic Church	<ul style="list-style-type: none"> • Conduct sustainable livelihood program • Provide tools and seeds to farmers • Deliver trainings to farmers 	Ezo, Nzara, Yambio, Ibba and Maridi Counties	Farmers

*There are a number of DPs and NGOs in the state. The above information collected by CAMP team is shown as examples.

Services provided by private sector

(Tractor hiring service)

- The service is provided by some service providers.
- The service charge is SSP 250/feddan for ploughing and SSP 200/feddan for harrowing.

(Agro-dealers)

- Some improved seeds, fertilizers and tools are available at a hardware shop. The price is shown below.

Item	Origin of products	Retail Price (SSP)
Maize seeds	Uganda	125/10kg
Okra seeds	Uganda	25/can (50-60 grams)
Eggplant seeds	Uganda	25/can (50-60 grams)
Onion seeds	Uganda	50/can
Urea	Uganda	350/50 kg bag
DAP	Uganda	525/50 kg bag
Hoe	Uganda	15 each
Panga	Uganda	10 each
Grass slasher	Uganda	10 each

*IFDC provides fertilizers. Farmers pay 10 % of the fertilizer cost (Voucher program).

- Fertilizers (Urea and DAP) are provided through IFDC (International Fertiliser Development Centre) voucher system. IFDC supports 90% of the cost; farmers pay 10% of the cost.

(Financial institution)

- (Information not available)

Market						
Agricultural products and their origin (Yambio, April, 2013)						
(Crop)			(Others)			
Item	Type	Origin	Item	Type	Origin	
Maize	Import	-	Okra	Import	-	
	Domestic	Yambio		Domestic	Yambio	
Maize flour	Import	Uganda	Jew's mallow	Import	-	
	Domestic	-		Domestic	Yambio	
Sorghum	Import	-	Rocket	Import	-	
	Domestic	Yambio		Domestic	Yambio	
Rice	Import	Uganda, Pakistan, Congo	Tomato	Import	Uganda	
	Domestic	Yambio		Domestic	Yambio	
Cassava	Import	-	Eggplant	Import	-	
	Domestic	Yambio		Domestic	Yambio	
Groundnut	Import	-	Onion	Import	Uganda	
	Domestic	Yambio		Domestic	-	
Finger millet	Import	-	Cabbage	Import	Uganda	
	Domestic	Yambio		Domestic	Yambio	
			Sugar	Import	Uganda	
				Domestic	-	
			Pineapple	Import	-	
				Domestic	Yambio	
			Pumpkin	Import	-	
				Domestic	Yambio	

Source: CAMP survey team 2013.
*1 This is not a representative sample.
*2 WE: Western Equatoria

Source: CAMP survey team 2013.
*1 This is not a representative sample.
*2 WE: Western Equatoria

Market price (Retail price, Yambio, May 2013)						
Item	Unit	Price (SSP) (range)				
		Low season				High season
Maize (Domestic)	Sack (50kg)	Sep-Nov	50-60	-	150	May-June
Maize flour (Import)	Sack (25kg)	Dry season	70-75	-	100	Rainy season
Rice (Import)	Sack (25kg)	Dry season	90	-	110	Rainy season

Source: CAMP survey team 2013.
* This is not a representative sample.

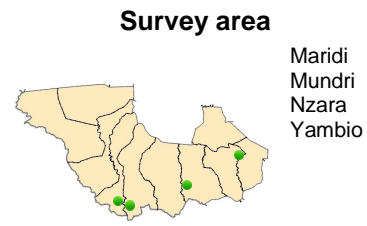
Transportation cost (Yambio, April, 2013)			
Type	Unit	Currency	Cost (range)
Transport (Motorcycle rent)	day	SSP	70
Transport (Uganda-Yambio)	50 tons (truck)	Ush	15,000,000
Porterage (uploading in Uganda)	50 tons (truck)	Ush	400,000-500,000
Porterage (unloading in Yambio)	50 tons (truck)	SSP	1,500-2,000

Source: CAMP survey team 2013.
* This is not a representative sample.

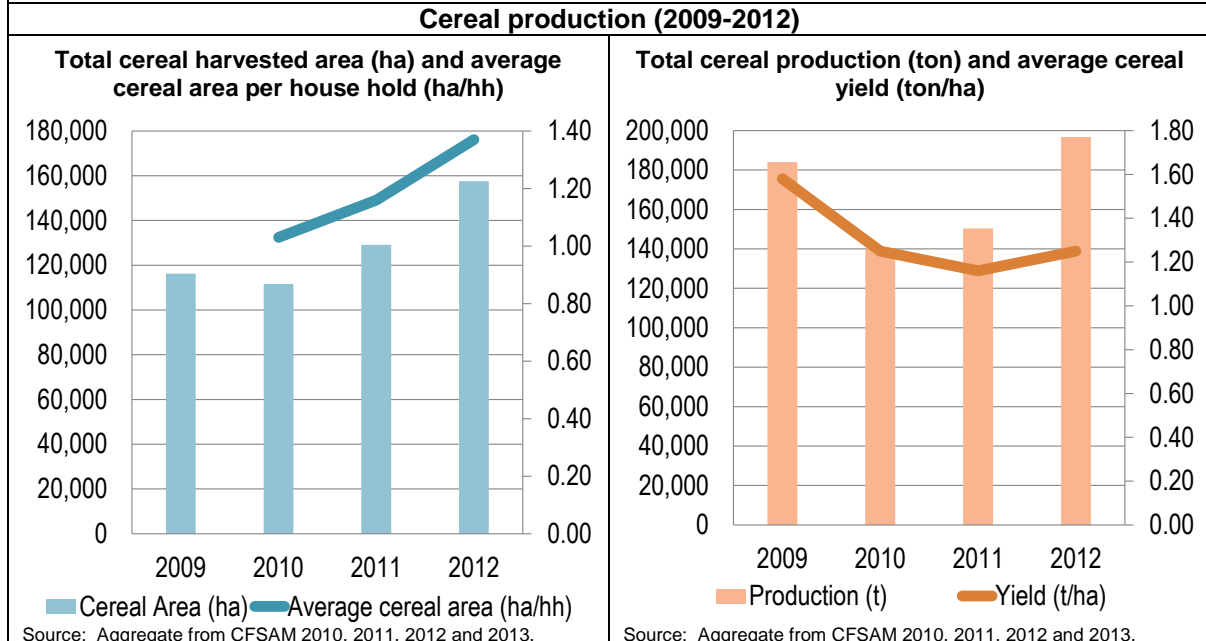
Taxes and charges (Yambio, April, 2013)		
(Wholesaler size 4mx4m)		
Type	Cost (SSP) (range)	Frequency
Licence	360	Annually
Customs (Kaya)	8,000-11,000	Every purchase
Checking fee (Yei)	500-600	Every purchase
County tax (Yambio)	1,000-1,500	Every purchase
Revenue authority tax	10,000-15,000	Every purchase
Chamber of Commerce (Registration fee)	100	Annually
Garbage collection service	70	Monthly
(Retailer)		
Type	Cost (SSP)	Frequency
Garbage collection	1	Daily
Town council tax	20	Monthly

Source: CAMP survey team 2013.
* This is not a representative sample.

Crop production	
Farming household (%) (2012)	87
Farming household (No.) (2012)	115,377
Cereal area (ha) (2012)	157,557 (2 nd)
Cereal gross yield (t/ha) (2012)	1.25 (1 st)
Gross cereal production (t) (2012)	196,737 (1 st)
Average cereal area per household (ha/hh) (2012)	1.37 (1 st)



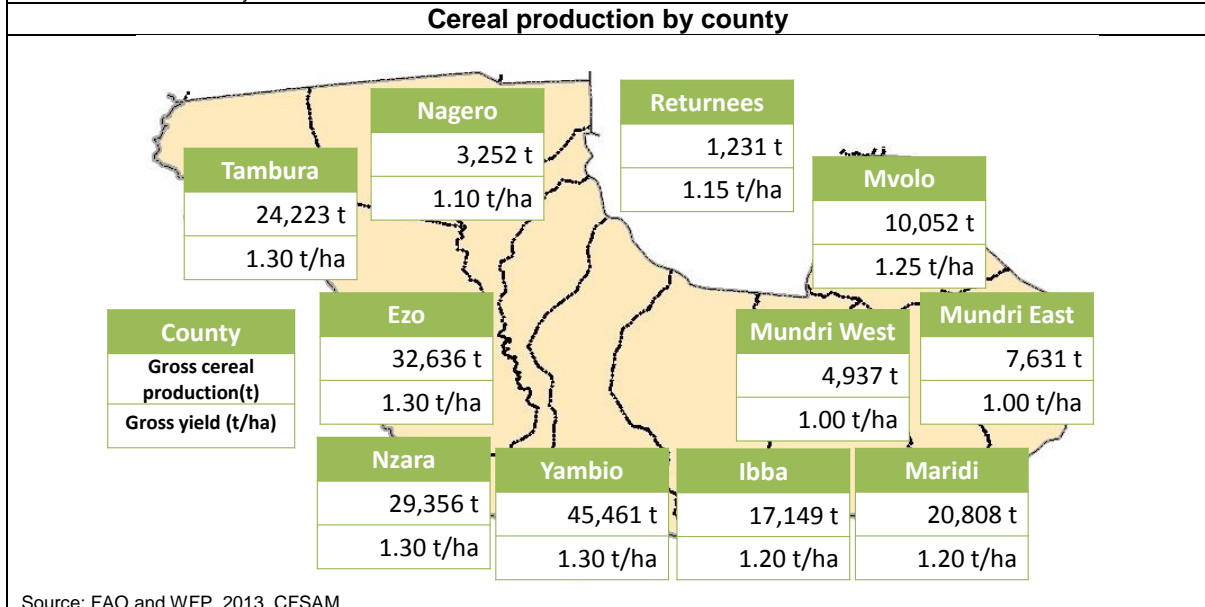
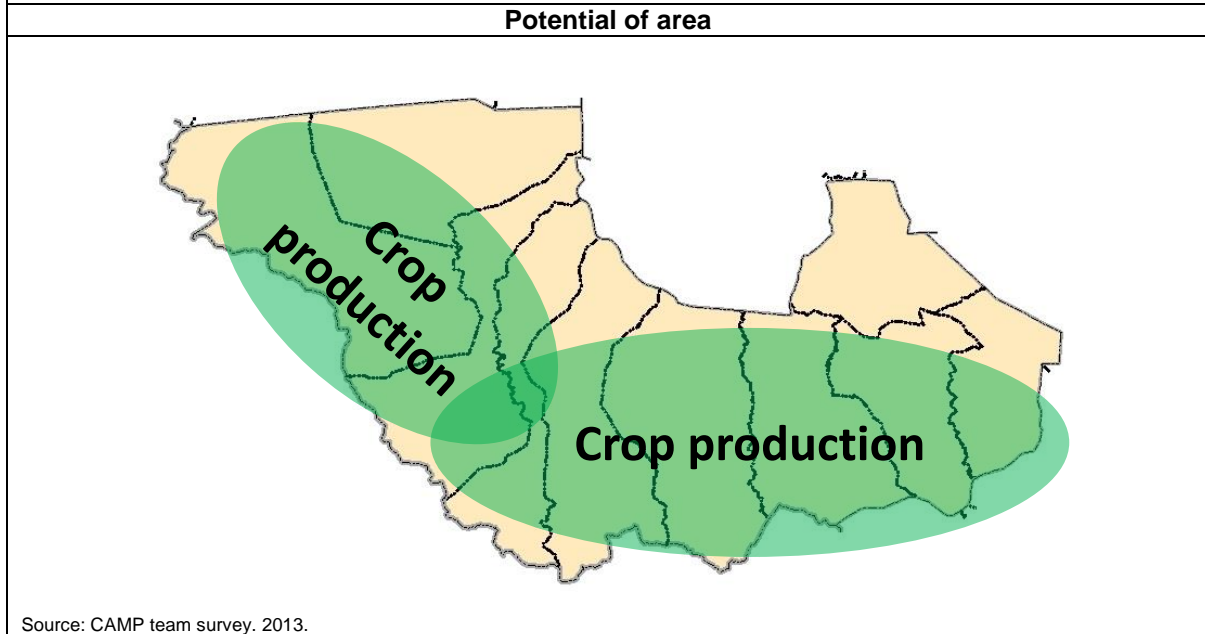
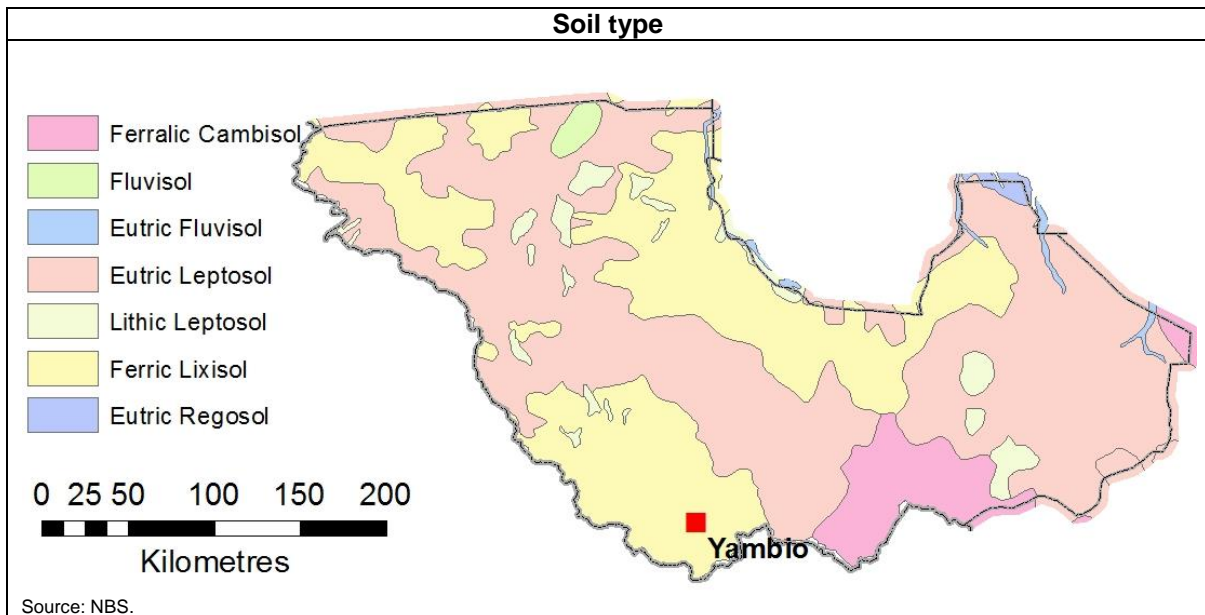
Source: FAO and WFP. 2013 CFSAM.



Crop production by livelihood zone	
Greenbelt	Ironstone Plateau
Major agricultural products	
<p>Crop</p> <p>Sorghum</p> <p>Maize</p> <p>Rice</p> <p>Finger millet</p> <p>Cassava</p> <p>Bean</p> <p>Sweet potato</p> <p>Cash crop</p> <p>Sesame</p> <p>Groundnut</p> <p>Sugarcane</p> <p>Coffee</p> <p>Tobacco</p> <p>Vegetable</p> <p>Many types of vegetables</p> <p>Fruits</p> <p>Pineapple</p> <p>Mango</p> <p>Banana</p>	<p>Crop</p> <p>Sorghum</p> <p>Maize</p> <p>Cassava</p> <p>Finger millet</p> <p>Rice</p> <p>Cash crop</p> <p>Sesame</p> <p>Groundnut</p> <p>Vegetable</p> <p>Tomato</p> <p>Eggplant</p> <p>Rocket</p> <p>Okra</p> <p>Pumpkin</p> <p>Jew's mallow</p>

Cropping calendar												
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maize			L	S	S			H	H	H		
Sorghum			L	S	S			H	H	H		
Finger millet			L	S	S			H	H	H		
Groundnut			L	S	S			H	H			
Cassava (2yrs)			L	T	T							
Rice			L	L	S	S	S			H	H	H
Vegetable			L	S	S	S	H	S	H	S	H	H

Source: CAMP survey team. 2013



Cross cutting issues	
<p>(Land)</p> <ul style="list-style-type: none"> No serious land issues are found in rural areas but some land ownership issues in urban areas. <p>(Gender)</p> <ul style="list-style-type: none"> Women tend not to be involved in decision making process at community and household levels. Widows cannot own land and properties of their late husbands unless there are special arrangements. <p>(Security)</p> <ul style="list-style-type: none"> Border conflicts along the state border with Lakes State due to cattle entering from that state. The number of LRA attacks is going down in Tombra and Ezo Counties but the attacks still continue. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> Support to IDPs and returnees is insufficient. <p>(HIV)</p> <ul style="list-style-type: none"> Infection rate may be high in youth but no surveys are conducted. 	
Opportunities	
<p>Overall</p> <ul style="list-style-type: none"> Sufficient manpower 	
<p>Crop</p> <ul style="list-style-type: none"> Climate (sufficient rainfall) Fertile soil Vast unutilized land 	
Challenges	
<p>Overall</p> <ul style="list-style-type: none"> Feeder roads are not well established. Poor access to financial institutions High tax rates High transport costs High labour costs 	
<p>Crop</p> <ul style="list-style-type: none"> High cost for tree trunk removal No effective pest and disease control methods Few training opportunities for extension workers and farmers Insufficient means of transport for extension activities Insufficient budget for extension work 	

8.4 Forestry

On-going and proposed projects

List of on-going projects

Project name	Objectives/activities	Duration	Annual cost
Equatoria Teak Company Nzara	Develop timber production	(Information not available)	(Information not available)
Blue Lakes	Promote plantation for timber	(Information not available)	(Information not available)
Afforestation	Develop plantation	On-going	SSP 1,933,120

Source: CAMP team survey, 2013.

List of proposed projects

Project name	Objectives/activities	Duration	Annual cost
Farmer support	Promote farmers for income generation from forest	(Information not available)	(Information not available)
Agro forestry	Introduce effective land use	(Information not available)	(Information not available)
Capacity development	Deliver new forest management skills	(Information not available)	(Information not available)
Saw milling	Increase timber production	(Information not available)	(Information not available)

Source: CAMP team survey, 2013.

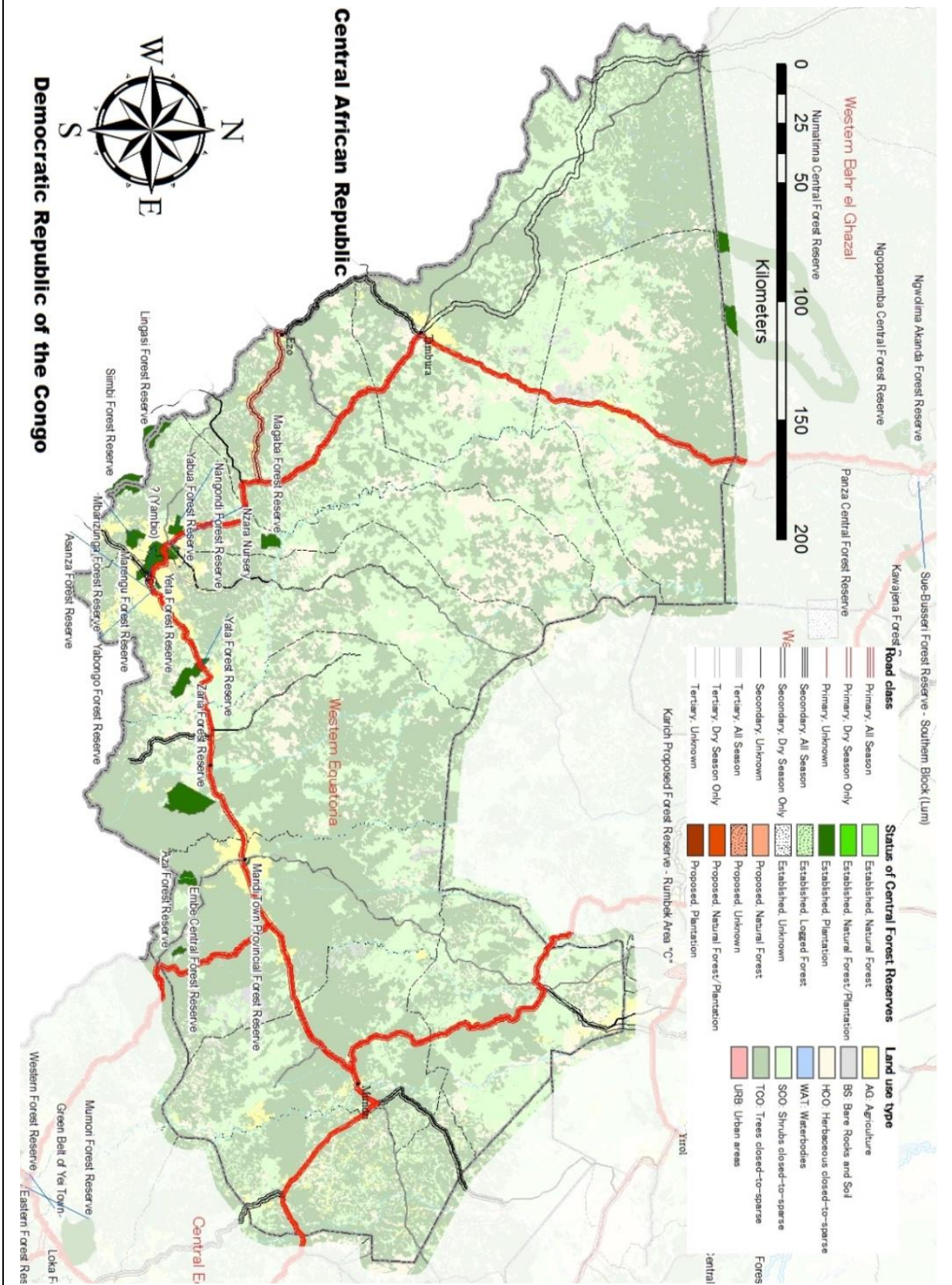
Land cover percentage to total area

County	AG	TCO	SCO	HCO	URB	BS	WAT	Total area	Total area (ha)
Ezo	3.3%	52.2%	26.3%	17.4%		0.7%	0.1%	100.0%	804,983
Ibba	2.4%	64.3%	21.9%	11.0%		0.3%	0.1%	100.0%	978,773
Maridi	6.6%	68.8%	17.9%	2.9%	0.0%	3.7%	0.0%	100.0%	773,552
Mundri East	7.7%	61.7%	21.1%	9.2%	0.1%	0.2%	0.2%	100.0%	477,799
Mundri West	6.5%	63.9%	22.9%	5.2%	0.0%	1.4%	0.2%	100.0%	585,206
Mvolo	3.6%	38.8%	40.6%	16.2%	0.1%	0.6%	0.1%	100.0%	576,108
Nagero	0.5%	51.8%	23.7%	22.0%		1.4%	0.5%	100.0%	926,250
Nzara	5.9%	45.6%	26.2%	21.8%	0.0%	0.3%	0.1%	100.0%	646,364
Tambura	2.9%	56.2%	32.4%	6.8%	0.0%	1.1%	0.7%	100.0%	1,258,207
Yambio	7.3%	47.3%	28.0%	17.3%	0.1%	0.0%	0.0%	100.0%	884,724
Total	4.3%	55.3%	26.3%	12.9%	0.0%	1.0%	0.2%	100.0%	7,911,966

Source: FAO, 2011. *Land cover atlas of South Sudan*. Rome: FAO.

Legend: AG=Agriculture, TCO=Tree closed-to-sparse, SCO=Shrubs closed-to-sparse, HCO=Herbaceous closed-to sparse, URB=Urban areas, BS=Bare Rocks and Soil, and WAT=Waterbodies.

Location of Central Forest Reserves and land cover in 2009



8.5 State Ministry of Agriculture, Cooperatives and Environment (MACE)																											
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Capital	(Data not available)	(Data not available)	409,937																								
Overall total	(Data not available)	(Data not available)	3,208,654																								
Source: State MACE. Unit: SSP			<p>WES State Strategic plan (2012-15)</p> <p>Objective The strategic plan provides strategies and activities to be carried out in the next 4 years. It attempts to give realistic timelines to ensure effective use is made of available resources. It attempts to increase food security and encourage growth in economic exploitation of the available natural resources through microenterprises which will in turn increase household incomes. The Strategic plan also provides an entry point for partners, NGOs and donor organizations that maybe interested in developing projects geared towards improving the livelihoods of the people of WES.</p> <p>Budget 3,208,645 (SSP)</p> <p>Plan (Information not available)</p> <p>Activities (Information not available)</p> <p>Source: State MACE.</p>																								
Services provided by State MACE and local government																											
<p>(Animal production services)</p> <ul style="list-style-type: none"> • Technical services are provided to cattle keepers. • Deliver beekeeping training and provide 30 modern beehives in cooperation with National MARF. • Radio program for providing technical information to cattle keepers <p>(Animal health services)</p> <ul style="list-style-type: none"> • Treatment • Vaccination • Extension and awareness • Technical support • Public health (meat inspection) • Disease outbreaks investigation missions in collaboration with State MACE and other NGOs • Basic and refresher training for State MACE and County staffs 																											

8.6 Livestock

Services provided by National government institutions

Organisation	Activities	Target	Period
Amadi Rural Development Institute	<ul style="list-style-type: none"> Deliver technical training to CAHWs and farmers 	Participants from 10 states	1-2 weeks

Source: CAMP survey team. 2013.

*CAHW: Community Animal Health Worker

Services provided by DPs and NGOs

Organisation	Activities	Area	Period
Word Vision	<ul style="list-style-type: none"> Construction of the slaughter house and hide and skin store Training of CAHWs Training of farmers Training of bee keepers Provision of equipment for bee keepers Restocking of goats to vulnerable communities Construction of shade for slaughter house Construction of small ruminants' demonstration farm 	Yambio and Tambura Counties	2008 -
CRS (Christian Relief Services)	<ul style="list-style-type: none"> Provide training and processing equipment (buckets, containers protective gears and smokers) 	Tambura and Yambio Counties	2008 -
FAO	<ul style="list-style-type: none"> Capacity building Provide veterinary vaccines 	All counties	(Information not available)
NPA (Norwegian People's Aid)	<ul style="list-style-type: none"> Goat restocking program 	Movolo County	2010-

Source: CAMP survey team. 2013.

*CAHW: Community Animal Health Worker

Services provided by private sector

(Agro-dealer)

- Veterinary drugs and technical advices are provided by agro-dealers.

(Slaughter house)

- (Information not available)

(Other)

- Tele-communication company (Zain Telecom) supports beekeepers through providing modern beehives.

Livestock population

	Yambio	Mvolo	Mundri West	Mundri East	Maridi	Nzara	Ezo	Tambura	Nagero	Ibba	Estimated population
Cattle		X	X	X							500,000
Sheep		X	X		X						7-800,000
Goat	X	X	X	X	X	X	X	X	X	X	1,200,000
Poultry	X	X	X	X	X	X	X	X	X	X	1,500,000
Donkey	X	X	X	X	X	X	X	X	X	X	(Data not available)
Horse	X	X	X	X	X	X	X	X	X	X	(Data not available)
Pig	X							X			(Data not available)
Rabbit	X										1,350
Bee	X				X			X			(Data not available)

Source: State MACE.

X: Relevant livestock bred

Livestock diseases				
Type of Animal	Type of disease	Outbreak area in last 2 years		
Cattle	Contagious bovine pleuropneumonia	Tambura, Mvolo, Mundri West and East Counties		
	East Coast Ffever	Maridi, Mundri West and East Counties		
	Black Q\quarter	Mvolo, Mundri West and East Counties		
	Trypanosomiasis,	Tambura, Mundri West and East Counties		
	Lumpy skin disease, Foot rot, Internal parasites, Brucellosis	There was no outbreak in the last 2 years.		
Sheep and goat	Contagious caprine pleuropneumonia	Tambura, Yambio, Mvolo, Mundri West and East Counties		
	Peste des petits ruminants	Yambio County		
	Mange, Worms, Foot rot	There was no outbreak in the last 2 years.		
Poultry	Newcastle disease	Tambura, Yambio, Mundri West, and Mvolo Counties		
	Fowl pox, Infectious bronchitis, Coccidiosis, Internal parasites	There was no outbreak in the last 2 years.		
Canine	Rabies	Tambura and Ibba Counties		
Source: State MACE.				
Animal health issues				
<ul style="list-style-type: none"> Lack of veterinary drugs, vaccines and equipment Inadequate professional staff at the state and county level Lack of infrastructure and facilities at the state HQs and county level Lack of communication and transport means Lack/Irregular funding to the Animal Resources sector from the National MARF and the state ministry. 				
Market				
Type of livestock and livestock product	Market			
Cattle	Yambio holding ground (Secondary market) Mundri Town(Secondary market) Tambura (Secondary market)			
Sheep	Yambio, Mundri, Tambura			
Goat	Yambio, Tambura. Ezo, Maridi, Mundri			
Poultry	All the Counties			
Pig	Yambio			
Honey	Yambio (Primary market), Tambura (Primary market) Ezo, Maridi (Primary market), Mundri (Secondary market)			
Rabbit	Yambio			
Source: CAMP survey team. 2013.				
Market price				
Item	Unit	Price (SSP)		
		Low season		High season
Cattle	Head	(Data not available)	4,000 - 4,000	(Data not available)
Sheep	Head	(Data not available)	80 - 100	(Data not available)
Goat	Head	(Data not available)	150 - 200	(Data not available)
Hen	Each	(Data not available)	20 - 20	(Data not available)
Cock			30 - 30	
Duck (female)			30 - 30	
Duck (male)			50 - 50	
Fresh milk	500ml	(Data not available)	5 - 5	(Data not available)
Powdered milk	2.5kg (big can)		90 - 90	
Powdered milk	1.5kg (small can)		25 - 25	
Powdered milk	Sachet		2 - 2	
Leg	1kg	(Data not available)	35 - 35	(Data not available)
Liver			24 - 24	
Meat (boneless)			24 - 24	
Pile of offal			2 - 2	
Meat (goat)	1kg	(Data not available)	40 - 40	(Data not available)
Leg and head			15 - 20	
Pile of offal			5 - 5	
Egg	Each	(Data not available)	2 - 2	(Data not available)
Rabbit	Pair	(Data not available)	100 - 100	(Data not available)
Source: CAMP survey team. 2013.				
*This is not a representative sample.				

Taxes and charges

Type	Cost (SSP)	Frequency
County council	35/cattle	Daily
Slaughter house fee (veterinary office at county and payam levels)	27/cattle	Daily

Source: CAMP survey team. 2013.
*This is not a representative sample.

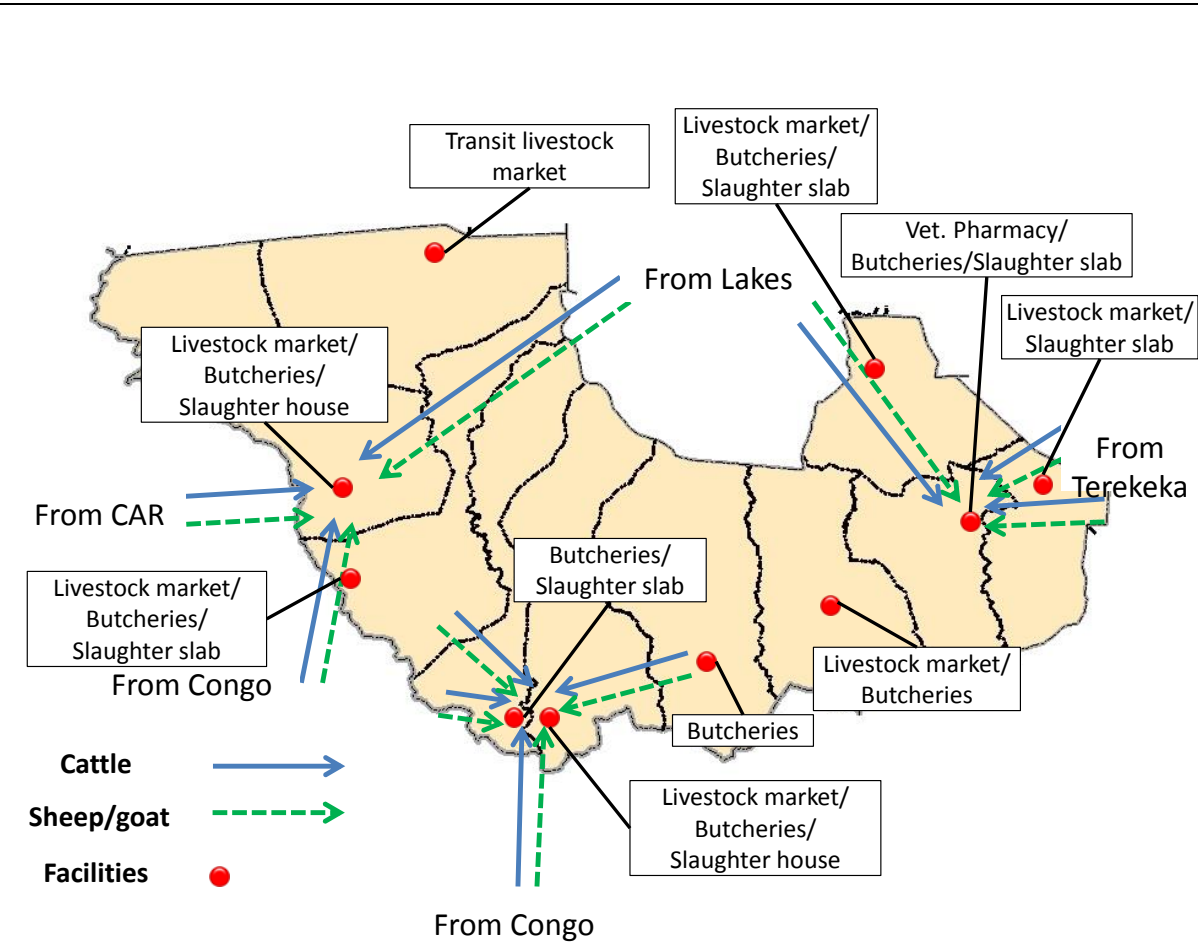
Major livestock species and products by livelihood zone

Greenbelt		Ironstone Plateau	
Type of Animal	Breed	Type of Animal	Breed
Cattle	Local (Lugbara, Nilotic)	Cattle	Local
Sheep	Local	Sheep	Local
Goat	Local and exotic	Goat	Local
Pig	Local	Bee	Local
Bee	Local	Poultry	Local
Rabbit	Local		
Poultry	Local		

Livestock products	Livestock products
<ul style="list-style-type: none"> Milk Meat Honey Egg Hide and skin 	<ul style="list-style-type: none"> Milk Meat Honey Egg Hide and skin

Source: CAMP survey team. 2013.

Livestock related facilities and trade routes



Source: CAMP survey team. 2013

Cross-cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • There is no available land for constructing livestock infrastructures. • Some slaughter slabs and an auction yard are found on people's land. <p>(Migration)</p> <ul style="list-style-type: none"> • Migrations are found from the neighbouring states by pastoral communities (e.g. Munday Tali Dinka Yoril, Dinka Bor and Western Bahr el Ghazal) for grazing areas and water for their livestock. <p>(Conflict and insecurity)</p> <ul style="list-style-type: none"> • Conflicts between livestock keepers and sedentary farmers occasionally erupt during cultivation period. • Raiding of livestock causes conflicts between tribes leading to insecurity. • There was an insecurity threats from the LRA but the incidence is minimized due to presence of Joint-security forces from SPLA, Ugandan army and African Union forces. <p>(Gender disparities)</p> <ul style="list-style-type: none"> • In Western Equatoria State, women participate in all activities like men, from cultivation to making houses. <p>(Drought and floods)</p> <ul style="list-style-type: none"> • Drought happened in Mundri on 16th of September 2005, people suffered hunger. • Prolonged dry spells in all counties
Opportunities
<ul style="list-style-type: none"> • Due to availability of vast rangeland and land fertility, there are huge potential pastures that could boost animal production in the state. • There are opportunities for establishment of ranches and farms for poultry, dairy, beef, etc. • There is willingness of the crop farming communities to diversify into other livelihood activities such as livestock rearing for both domestic consumption and commercialisation. • With easy accessibility to the border corridors of Congo and Central African Republic, there are opportunities for trans-boundary trades which can improve the national economy through revenues generated from the livestock exports. • Demand for meat is increasing especially in urban areas.
Challenges
<ul style="list-style-type: none"> • Lack of funding from State government • Due to sharing the ministry with agriculture and forestry, environment, cooperatives and rural development, livestock is always overshadowed by the other agriculture sub-sectors. • Lack of drugs and vaccines • Insufficient means of transport • Poor coordination between the State and National ministries • Livestock diseases • Conflicts resulting from stealing of animals • Lack of infrastructure at the state and county levels • Land problem for the livestock facilities within the state • Lack of laws and regulations • High and illegal taxation • Lack of awareness of extension activities to livestock keepers

8.7 Fisheries

Numbers of fishing households (ANLA 2012)	6,682	
Fish production	Unknown but relatively low as there are few large rivers or swamps in the state. Any rivers near to habitation are heavily fished, mostly for subsistence but surplus will be sold.	
Fish exports	None	
Fish imports	From Uganda via Yei and from DRC, and from other states in South Sudan. All smoked and dried fish.	
Seasonality	A dry season fishery since in the wet season the fishing households are busy cultivating.	
Landing sites	These are located near rivers and human habitation, though not centralised in any way.	
Gears	Cast nets, pole and line, long lines, locally made scoop nets, gill nets (staked)	
Vessels	Planked and dugout canoes. (Relatively few in rivers)	
Informal taxation	Tax is a problem for importers. Taxation is the responsibility of the County Authorities and no revenues accrue to Fisheries.	
Security	WES has singular security problems with the LRA in Ezo, Tambura and Nazara Counties on the boundaries of CAR and DRC. Ambororo nomads have also caused insecurity as they are disliked by the settled farmers of the state.	

Aquaculture

WES has the most fish ponds of any state (32). These have been supported by NGOs and other donors. Production is still struggling. Problems with skills, feeds, seed, husbandry techniques. (also irregular support from NGOs) Major potential for IAA aquaculture throughout the state.



Possible to develop this small scale integrated fish farming in many areas among literally thousands of settled farmers. Ponds need to be larger than now, more commercial, in clusters around Yambio and a hatchery is required. Some traders take Uganda origin tilapia from the "Uganda" market in Konyo Konyo to Yambio, indicating a high unsatisfied demand for fresh fish in the area. (Photo: Fish pond near Yambio)

Fish ponds in WES (2013) Updated September 2013

County	Ponds	Producing Ponds
Yambio County	23	18
Ego County/	4	2 (just stocked)
Iba County	0	0
Tambura County	2	0
Mundri East	2	0. Not yet stocked

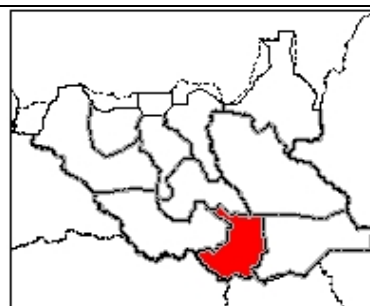
Post-harvest and marketing

Fish is coming in to WES from CES, Uganda, DRC to feed the population, as local supplies are insufficient. Large selection of dried and smoked products available in the market in Yambio and other towns. Fish prices for Yambio in July 2013.

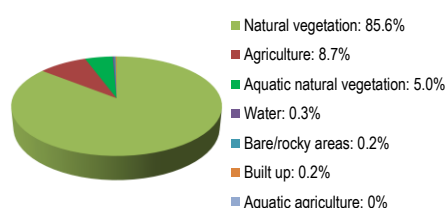
Species	Presentation	SSP/kg	Species	Presentation	SSP/kg
Clarius spp	Dried plaits	62.18	Alestes	Sun dried	15.38
Distichotus sp	Dried plaits	46.81	Clarius spp	Sun dried	54.05
Heterotus niloticus	Dried plaits	44.90	Daga'a	Sun dried	25.00
Lates niloticus	Smoked	64.94	Marmyrus caschive	Sun dried	16.67
Alestes	Sun dried				

9 Central Equatoria State (Capital: Juba)

9.1 Basic Information	
Population (2008)^a	1,103,557 (2 nd) Male: 581,722 Female: 521,835
Projected population (2013)^b	1,395,905 (2 nd)
Area^c	43,906 km ² (7 th)
No. of Counties, Payams and Bomas (2009)^d	6 Counties
	45 Payams
	224 Bomas
Food secure population (2012)^b	72% (2 nd)
Access to improved drinking water (2009)^e	51% (7 th)
Literacy rate (15-24 years old) (2009)^e	55% (2 nd)
Primary school gross enrolment rate (GER) (2010)^f	51% (9 th)



Land cover ^g

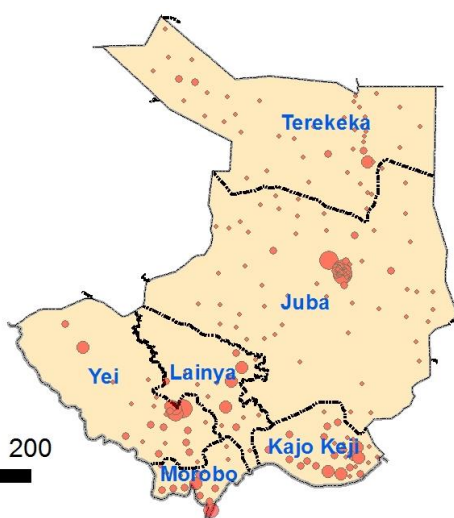
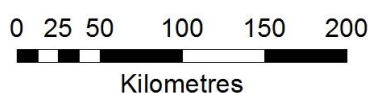


Source: ^a SSCSE. 2010. Southern Sudan Counts: Tables from the 5th Sudan Population and Housing Census, 2008; ^b WFP. 2013. ANLA; ^c FAO. 2011. Land Cover Atlas of the Republic of South Sudan; ^d Original data source of NBS. 2012. NBHS 2009; ^e NBS. 2012. NBHS 2009; ^f MoE. 2010. EMIS; ^g NBS. 2011. South Sudan Statistical Yearbook 2011.

Administrative districts (counties)

Boma Population

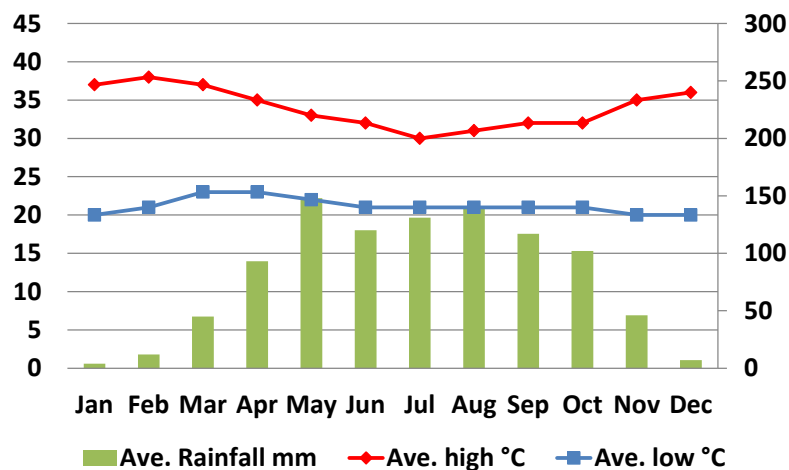
- 1 – 5,000
- 5,001 – 10,000
- 10,001 – 15,000
- 15,001 – 20,000
- 20,001 – 26,136



County	Estimated Population (2013) ^a	Pop. density (ppl/km ²) ^b
Juba	437,956	23.2
Yei	230,228	34.4
Terekéka	224,490	20.7
Kajo Keji	220,886	83.4
Morobo	128,218	94.5
Lainya	118,407	34.2

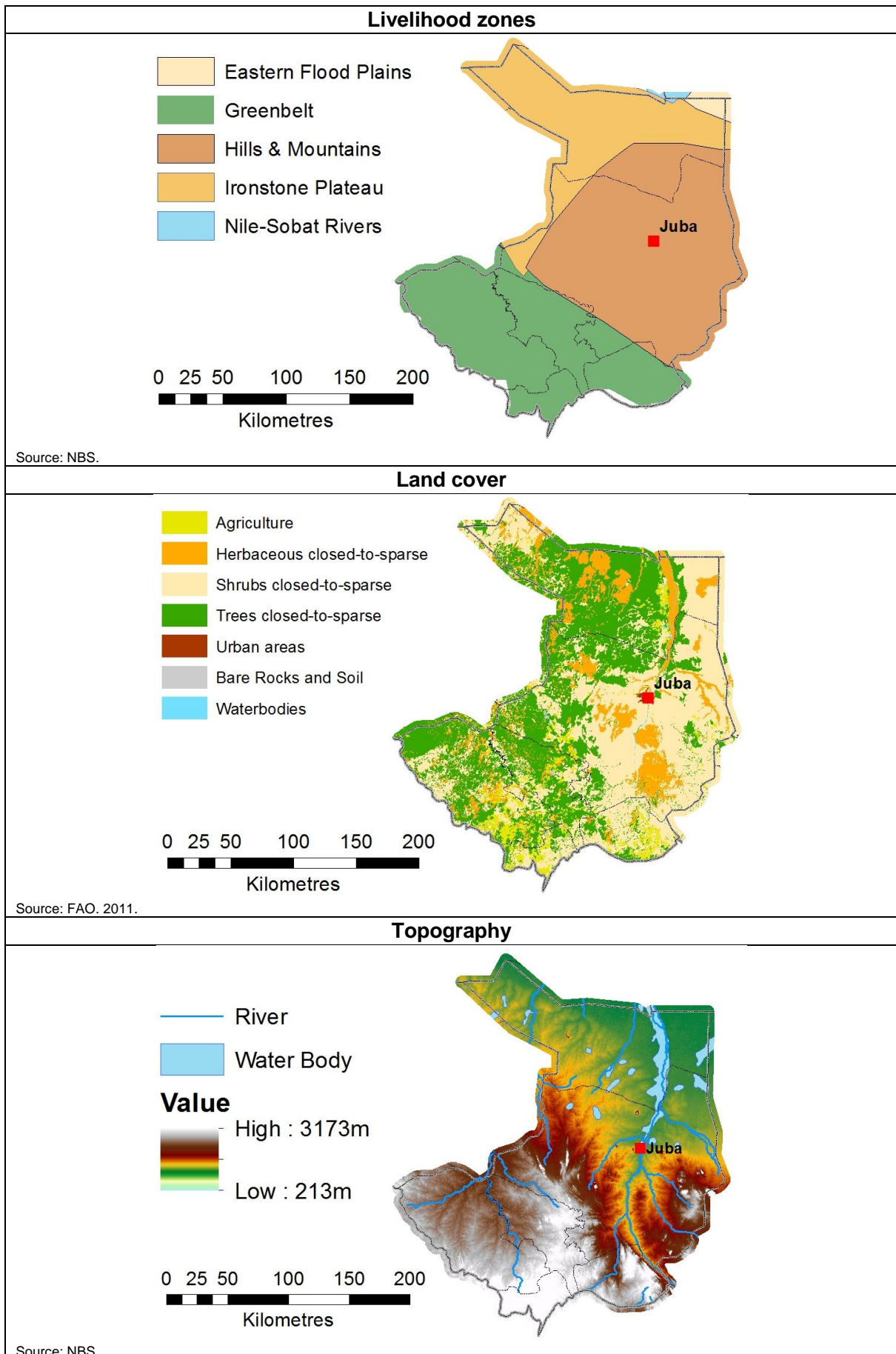
Source: (Map) NBS; (Table)^a WFP. 2013. ANLA; ^b Land scale data applied from FAO.2011. Land Cover Atlas of the Republic of South Sudan.

Climate chart (Juba)

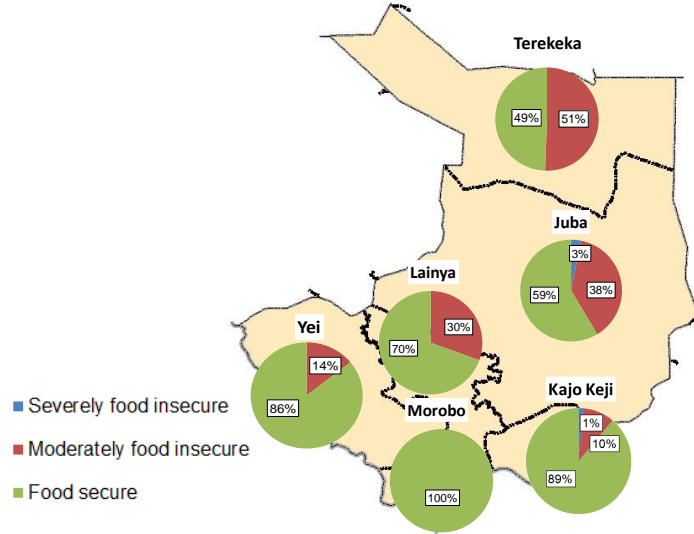


Annual ave. high temp.	33.8°C
Annual ave. low temp.	21.0°C
Average temperature	27.4°C
Ave. annual precipitation	966mm

Source: Climatedata.eu. 2013. Climate Juba.
<http://www.climatedata.eu/climate.php?loc=suzz0007&lang=en> (accessed on 25th August 2013).

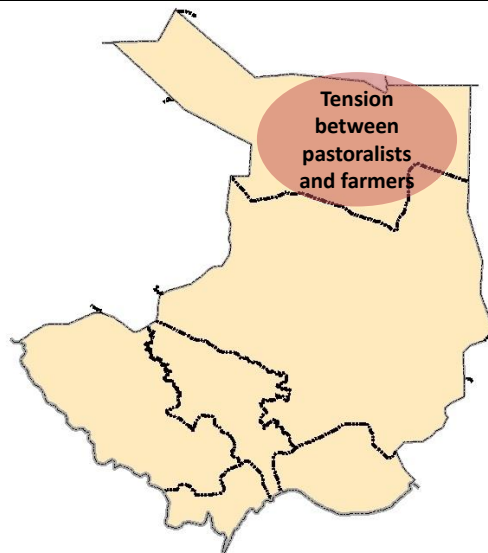


Estimated food security status by county (2013)



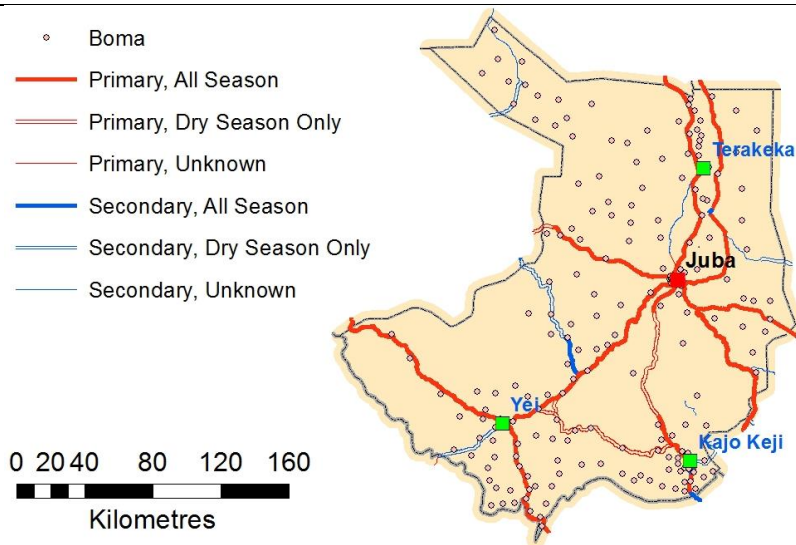
Source: WFP.2013.ANLA.

Insecurity and natural disaster



Source: CAMP survey team 2013.

Road and Boma location



Source: Road (WFP. 2013), Boma location (NBS).

9.2 State Ministry of Agriculture (MAF)																																										
Organogram			Staff																																							
<pre> graph TD Minister --> DG[Director General] DG --> DF[Directorate of Forestry] DG --> DA[Directorate of Agriculture] DG --> DSPS[Directorate of Planning and Statistics] DG --> DAF[Directorate of Administration and Finance] </pre> <p>Source: State MAF.</p>			Breakdown of information not fully available																																							
			<table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Forestry</td> <td>86</td> </tr> <tr> <td>Department of Planning and Statistics</td> <td>(3)</td> </tr> <tr> <td>Department of Extension and Training</td> <td>(5)</td> </tr> <tr> <td>Department of Administration and Finance</td> <td>(17)</td> </tr> <tr> <td>Department of Afforestation</td> <td>(42)</td> </tr> <tr> <td>Department of Utilization</td> <td>(19)</td> </tr> <tr> <td>Directorate of Agriculture</td> <td>91</td> </tr> <tr> <td>Department of Mechanization</td> <td>(5)</td> </tr> <tr> <td>Department of Extension</td> <td>(16)</td> </tr> <tr> <td>Department of Horticulture</td> <td>(11)</td> </tr> <tr> <td>Department of Research and Training</td> <td>(4)</td> </tr> <tr> <td>Department of Crop Production</td> <td>(6)</td> </tr> <tr> <td>Department of Plant Protection</td> <td>(4)</td> </tr> <tr> <td>Department of Planning and Statistics</td> <td>(16)</td> </tr> <tr> <td>Department of Administration and Finance</td> <td>(29)</td> </tr> <tr> <td>Directorate of Planning and Statistics</td> <td>-</td> </tr> <tr> <td>Directorate of Administration and Finance</td> <td>-</td> </tr> <tr> <td>Total</td> <td>177</td> </tr> </tbody> </table> <p>Source: State MAF.</p>		Section	Number of staff	Directorate of Forestry	86	Department of Planning and Statistics	(3)	Department of Extension and Training	(5)	Department of Administration and Finance	(17)	Department of Afforestation	(42)	Department of Utilization	(19)	Directorate of Agriculture	91	Department of Mechanization	(5)	Department of Extension	(16)	Department of Horticulture	(11)	Department of Research and Training	(4)	Department of Crop Production	(6)	Department of Plant Protection	(4)	Department of Planning and Statistics	(16)	Department of Administration and Finance	(29)	Directorate of Planning and Statistics	-	Directorate of Administration and Finance	-	Total	177
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<p>(Technical advice)</p> <ul style="list-style-type: none"> Technical advice is delivered by extension officers who are deployed by State MAF to the county agriculture departments (CAD). Some extension officers work in the payam offices and pass information to farmers at boma level. Technical advices is also provided by some of the plant protection officers, agriculture mechanization officers and crop production officers who work collectively with the extension workers at county and payam level. <p>(Seeds and tools provision)</p> <ul style="list-style-type: none"> The state ministry of agriculture normally provides seeds and some tools in the beginning of the first and second rain season respectively to farmers in six counties. <p>(Demo farm and field day= visit to field to share best agricultural practices)</p> <ul style="list-style-type: none"> Demo farms are well established in CES. The CAD offices in Yei, Morobo, Lainya and Kajo Keji Counties have demo farms (FFS: Farmers Field School) to train farmers in new agricultural practices. <p>(Tractor hiring service)</p> <ul style="list-style-type: none"> The state ministry provides one tractor to each county. The serve charge is between SSP 150 and 200/feddan. Some of these tractors are not sufficiently maintained. 																																										

9.3 Crop			
Services provided by DPs and NGOs			
Organisation	Activities	Area	Target
BRAC (Bangladesh Rural Advancement Comitte)	<ul style="list-style-type: none"> • Provide grinding mills and boreholes for two women's groups. 	Yei County	Farmers in the pilot areas
AAH-I (Action Africa Help International)	<ul style="list-style-type: none"> • Provide three motorized rice mills to three farmers' groups 	Yei County	Farmers in the pilot areas
UMCOR (United Methodist Committee on Relief)	<ul style="list-style-type: none"> • Provide grinding mills for maize as loan to individuals for value addition 	Yei County	Farmers in the pilot areas
FARM Project/USAID	Following services are provided: <ul style="list-style-type: none"> • Seed distribution • Training farmers and extension workers • Marketing project (value addition) • Demo plots • Land preparation support (80% of the charge will be supported by the project) 	Yei, Kajo Keji and Morobo Counties	Farmers in the pilot areas (FBOs: Farmer-based organisations)
GIZ	<ul style="list-style-type: none"> • Implement value chain development project 	Morobo Counties	
IFDC (International Fertilizer Development Centre)	<ul style="list-style-type: none"> • Provide quality maize seeds with fertilizer 	Yei, Morobo, Kajo Keji Counties	
AAO Morobo (Community based organisation)	Following services are provided: <ul style="list-style-type: none"> • Deliver training for farmers • Implement seed multiplication project 	Morobo County	
*There are a number of DPs and NGOs in the state. The above information collected by CAMP team is shown as examples.			
Services provided by private sector			
(Tractor hiring service)			
<ul style="list-style-type: none"> • There are some individual tractor hiring service providers in Yei, Morobo, Lainya and Kajo Keji Counties. (e.g. Savannah Company in Kajo Keji County) 			
(Agro-dealer)			
<ul style="list-style-type: none"> • Seed and tool supply systems are well established in Yei, Lainya, Morobo and Kajo Keji Counties. Some of them provide technical advice to their clients. (e.g. Centuty Seeds in Yei) 			
(Financial institution)			
<ul style="list-style-type: none"> • Financial institutions which support farmers are few. • Equity bank started providing loans to group of farmers in the four counties, however there are other micro finance institutions such as Rural Finance Initiative and Episcopal Church of Sudan in Kajo Keji which also provide loans to individuals and group of farmers. 			

Market						
Agricultural products and their origin (Yei, April 2013)						
(Crop)			(Others)			
Item	Type	Origin	Item	Type	Origin	
Sorghum	Import	-	Tomato	Import	Uganda	
	Domestic	Yei, Morobo, Lainya		Domestic	Yei, Morobo	
Maize grain	Import	-	Okra	Import	-	
	Domestic	Morobo, Yei		Domestic	Yei, Morobo, Lainya, Kajo Keji	
Maize flour	Import	Uganda	Onion	Import	Uganda	
	Domestic	Morobo		Domestic	Yei, Morobo, Lainya	
Cassava	Import	-	Jew's mallow	Import	-	
	Domestic	Yei, Morobo, Lainya, Kajo Keji		Domestic	Yei, Morobo, Lainya, Kajo Keji	
Bean	Import	Tanzania, Uganda	Cabbage	Import	Uganda	
	Domestic	Yei, Morobo		Domestic	Yei, Morobo	
Groundnut	Import	-	Irish potato and carrot	Import	Uganda	
	Domestic	Yei, Morobo, Lainya, Kajo Keji		Domestic	Yei	

Source: CAMP survey team 2013.
*This not a representative sample.

Source: CAMP survey team 2013.
*This not a representative sample.

Market price (Retail price, Yei, April 2013)						
Item	Unit	Price (SSP) (range)				
		Low season			High season	
Maize grain (Domestic)	1 kg	Sep-Oct	1.4	-	1.6	June-July
Maize flour (Import)	Sack (50 kg)	Jan-Apr	120	-	140	May-Sep
Sorghum (Domestic)	1 kg	Dec-Mar	1.4	-	1.6	June
Cassava (Domestic)	Bucket	Jan-Mar	18	-	20	Apr-Dec
Groundnut (Domestic)	Bucket	July-Aug	12	-	15	Apr-May
Sesame (Domestic)	Basin (18 kg)	Jan	150	-	170	Ma-Aug
Jew's mallow (Domestic)	Bundle	Apr-Aug	1	-	1	Jan-Mar
			(small)	-	(big)	
Okra (Domestic)	Piece	July	2	-	2	Feb
			8-10 pieces	-	4-6 pieces	
Tomato (Domestic)	Piece	June-Dec	1	-	2	Jan-May
			3-4 pieces	-	3-4 pieces	
Onion (Import)	Piece	Aug-Jan	2	-	5	Dec-Apr
			4 pieces	-	5 pieces	
Cabbage (Domestic)	Head	July-Nov	3	-	7	Jan-June
Irish potato (Import)	Piece	Aug-Dec	2	-	5	Feb-May
			4 pieces	-	5 pieces	

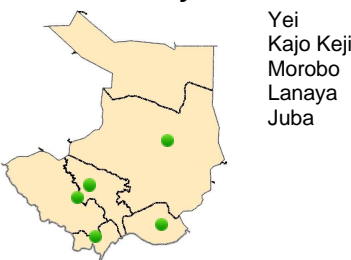
Source: CAMP survey team 2013.
*This not a representative sample.

Transportation cost (Yei, April, 2013)			
Type	Unit	Currency	Cost
Uganda-Yei	Truck (50 ton)	SSP	2,500
Uganda-Nimule	Truck (50 ton)	Ush	1,000,000
Juba-Yei	Truck (6 ton)	SSP	2,750
Juba-Morobo	Truck (6 ton)	SSP	3,500
Juba- Kajo Keji	Truck (6 ton)	SSP	3,000
Juba-Lainya	Truck (6 ton)	SSP	2,000

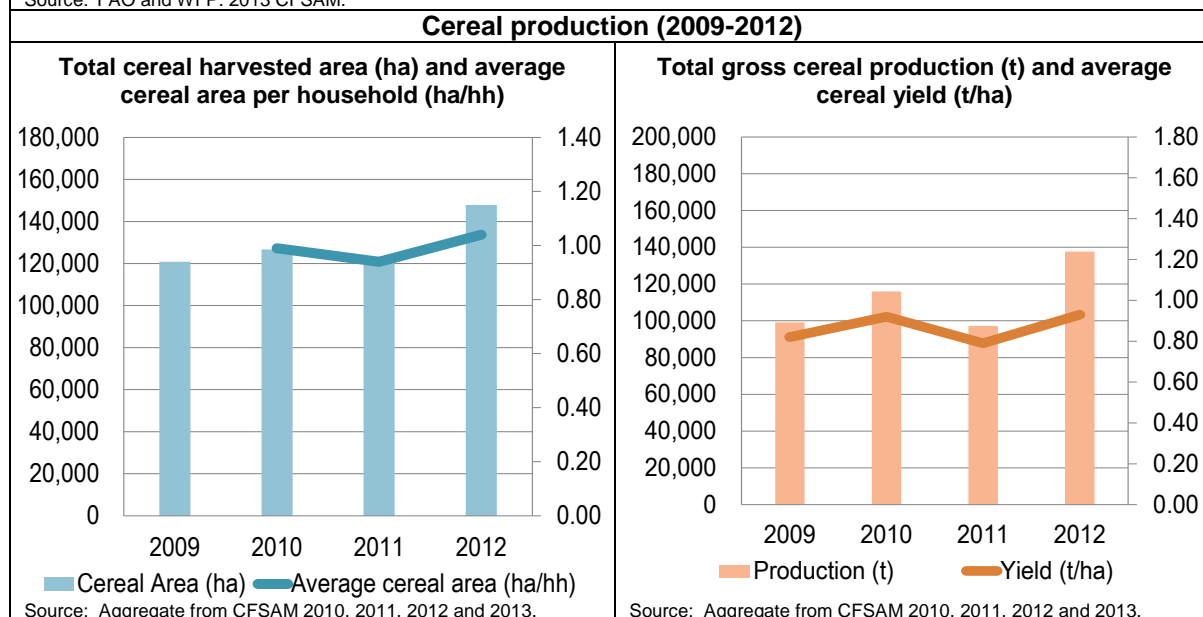
Source: CAMP survey team 2013.
*This not a representative sample.

Taxes and charges (Yei, April, 2013)		
(Wholesaler size 4mx4m)		
Type	Cost (SSP)	Frequency
Licence	200	Annually
Rent	30	Monthly
Customs tax	6	Per bag
Chamber of Commerce (5% of value)	-	Every purchase
(Retailer)		
Type	Cost (SSP) (range)	Frequency
Market fee	1	Daily
Shelter rent	10-30	Monthly

Source: CAMP survey team 2013.
*This not a representative sample.

Crop production		Survey area 
Farming household (%) (2012)	65	
Farming household (No.) (2012)	142,817	
Total cereal area (ha) (2012)	147,859 (3 rd)	
Cereal gross yield (t/ha) (2012)	0.93 (4 th)	
Gross cereal production (t) (2012)	137,643 (3 rd)	
Average cereal area per household (ha/hh) (2012)	1.04 (2 nd)	

Source: FAO and WFP. 2013 CFSAM.



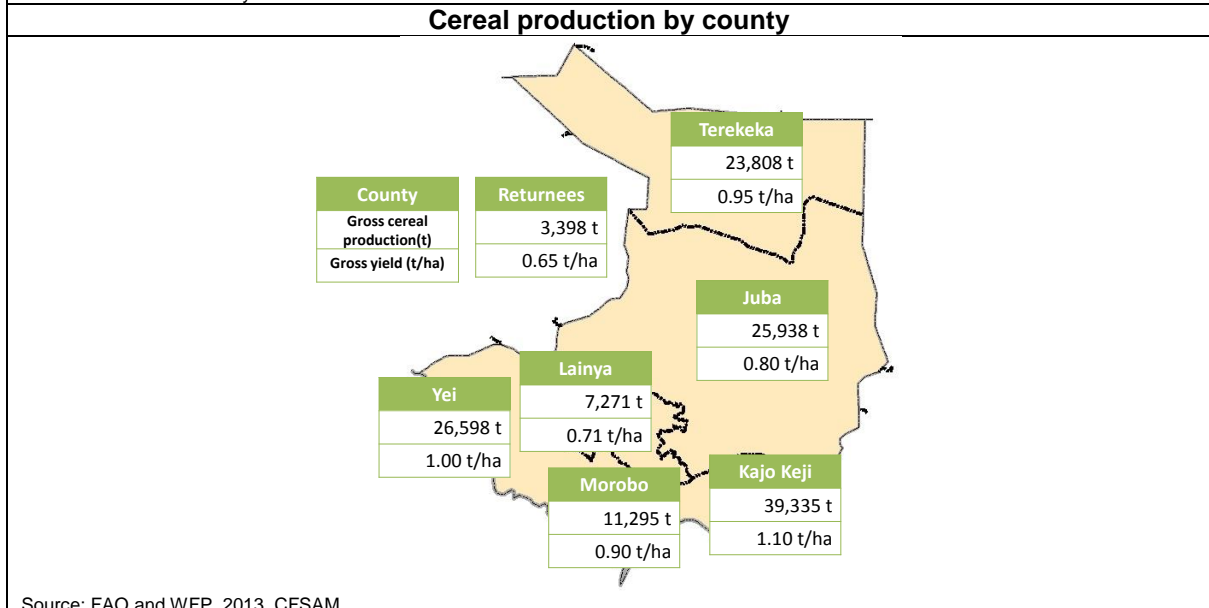
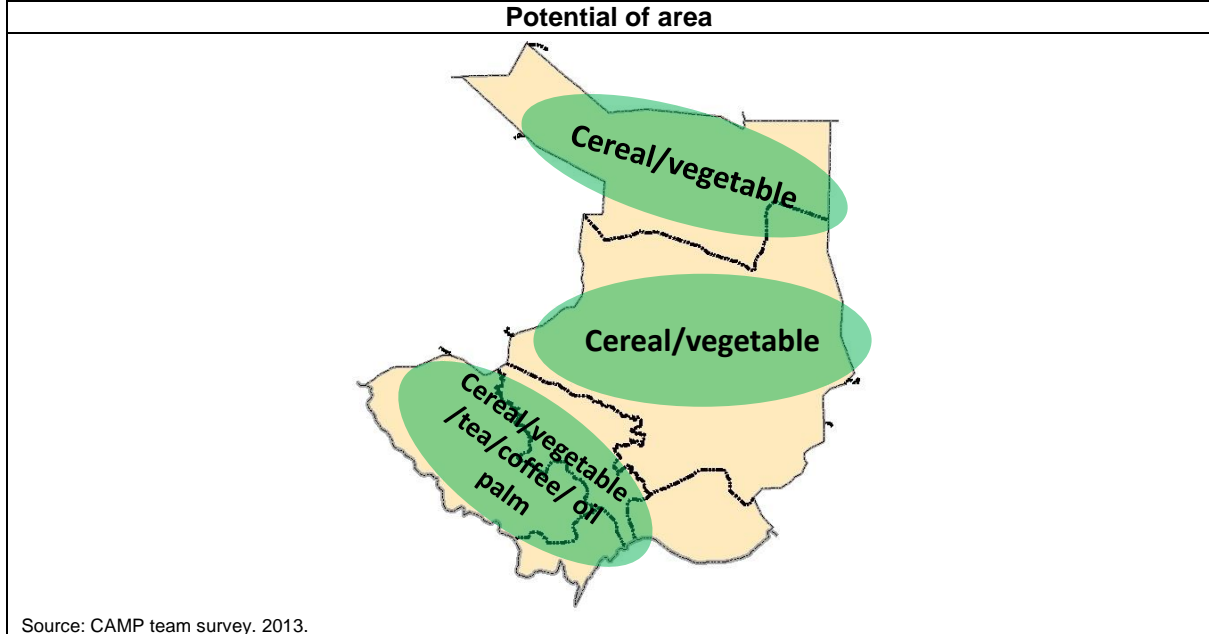
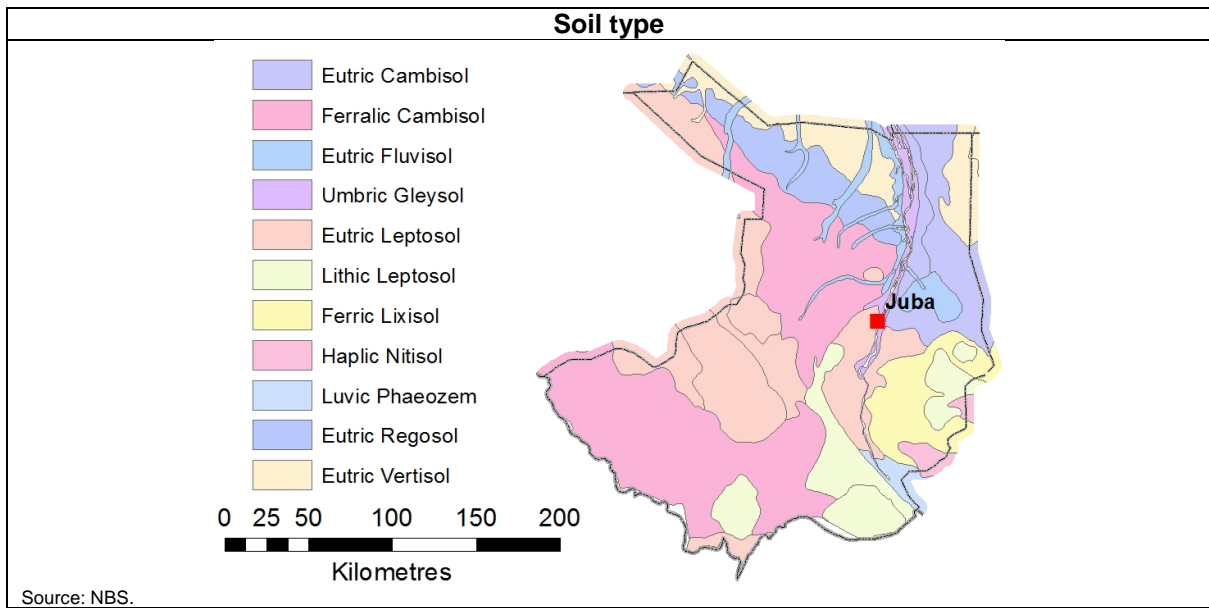
Crop production by Livelihood zone

Greenbelt	Hills and Mountains	Ironstone Plateau
Major agricultural products		
Crop Maize Sorghum Cassava Millet Beans Rice Cash crop Groundnut Cowpea Sesame Coffee Sugarcane Pigeon pea Soya bean	Vegetable Tomato Okra Jew's mallow Amaranthus Onion Cabbage Eggplant & Tula Sweet potato Pumpkin Fruits Banana	Crop Sorghum Maize Cassava Cash Crop Groundnut Vegetable Tomato Okra Jew's mallow

Cropping calendar

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maize	H	L	S				H	H	S	S		H
Sorghum (long)	H		L	L	S							
Rice (NERICA)	H	L	S				H	H	S	S		H
Groundnut		L	S				H	S				H
Cassava		L	L	T	T							H
Sesame				L	S		S	S	H			H
Bean				L	S					H		
Tomato	T	L	L	S	T			H	S	T		H
Cabbage			L	S	T			H				

Source: CAMP survey team. 2013.



Cross cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Land boundary issues between urban and sub-urban areas • Tension between pastoralists and sedentary farmers in Terekeka County <p>(Gender)</p> <ul style="list-style-type: none"> • Weak land rights of widows <p>(Security)</p> <ul style="list-style-type: none"> • There are few serious security issues. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> • Refugees from DRC near border • Considerable number of IDPs especially from Jonglei State <p>(HIV)</p> <ul style="list-style-type: none"> • HIV infection rate is higher in areas along the border.
Opportunities
<p>Crop</p> <ul style="list-style-type: none"> • Fertile land with sufficient rainfall • Double crop farming is available. • Considerable number of farmers is commercial oriented.
Challenges
<p>Overall</p> <ul style="list-style-type: none"> • Feeder roads are not well established. • Poor access to financial institutions • High tax rates • High transport costs • High labour costs
<p>Crop</p> <ul style="list-style-type: none"> • Appropriate agricultural inputs are not available for most farmers. • Capacities of the extension workers and farmers are underdeveloped. • Market information is not available for some farmers. • Few agricultural processing facilities • The number of tractors does not meet the farmers' needs. • Few opportunities of practical training for farmers • Conditions of storage facilities at local level are not adequate to keep agricultural products long term. • Effective pest and disease control methods are not available. • Occasionally floods occur mainly in July and August. • Soil fertility goes down due to over cropping without sufficient fertilizer and manure input.

9.4 Forestry

On-going and proposed projects

List of on-going projects

Project name	Objectives/activities	Duration	Annual cost
Afforestation (CETC: Central Equatoria Teak Company)	Afforestation and utilization of forest resources	(Information not available)	(Information not available)
Nursery development (GIZ: German Agency for International Development)	Agriculture and nursery development	(Information not available)	(Information not available)
Forestry management (KFTC: Kagelu Forestry Training Centre)	Training on forestry management at Kagelu Forestry Training Centre	(Information not available)	(Information not available)

Source: CAMP team survey, 2013.

List of proposed projects

Project name	Objectives/activities	Duration	Annual cost
Afforestation	Plantation development	(Information not available)	(Information not available)
Capacity development 1	Support tree out-growers	(Information not available)	(Information not available)
Capacity development 2	Train farmers on forestry	(Information not available)	(Information not available)
Extension program	Develop extension system	(Information not available)	(Information not available)

Source: CAMP team survey, 2013.

Land cover percentage to total area

County	AG	TCO	SCO	HCO	URB	BS	WAT	Total	Total area (ha)
Juba	3.8%	25.3%	56.2%	13.7%	0.4%	0.2%	0.3%	100.0%	1,889,060
Kajo Keji	22.6%	19.1%	54.9%	3.1%		0.1%	0.1%	100.0%	265,002
Lainya	14.5%	53.8%	24.0%	7.2%	0.0%	0.5%	0.0%	100.0%	345,843
Morobo	41.0%	19.9%	37.7%	1.2%	0.1%	0.2%		100.0%	135,662
Terekeka	4.3%	48.9%	26.2%	20.1%	0.0%	0.1%	0.5%	100.0%	1,085,093
Yei	14.4%	46.1%	24.5%	14.4%	0.1%	0.4%	0.0%	100.0%	669,909
Total	8.7%	36.0%	40.8%	13.9%	0.2%	0.2%	0.3%	100.0%	4,390,569

Source: FAO, 2011. *Land cover atlas of South Sudan*. Rome: FAO.

Legend: AG=Agriculture, TCO=Tree closed-to-sparse, SCO=Shrubs closed-to-sparse, HCO=Herbaceous closed-to-sparse, URB=Urban areas, BS=Bare Rocks and Soil, and WAT=Waterbodies.

Location of Central Forest Reserves and land cover in 2009



Source: NBS.

9.5 State Ministry of Animal Resources and Fisheries (MARF)																																																																																																						
Organogram		Staff																																																																																																				
		Breakdown of information not fully available <table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Veterinary Services</td> <td>62</td> </tr> <tr> <td>Department of Epizootic, Disease Control and Epidemiology</td> <td>(27)</td> </tr> <tr> <td>Department of Veterinary Services</td> <td>(12)</td> </tr> <tr> <td>Department of Animal Health</td> <td>(23)</td> </tr> <tr> <td>Directorate of Livestock Development</td> <td>78</td> </tr> <tr> <td>Department of Animal Production</td> <td>(65)</td> </tr> <tr> <td>Department of Livestock Marketing</td> <td>(13)</td> </tr> <tr> <td>Directorate of Fisheries Development</td> <td>33</td> </tr> <tr> <td>Directorate of Research, Extension, Training & Planning</td> <td>-</td> </tr> <tr> <td>Directorate of Range Management and Pasture Improvement</td> <td>37</td> </tr> <tr> <td>Directorate of Finance and Administration</td> <td>36</td> </tr> <tr> <td>County Vet. Coordination Office</td> <td>-</td> </tr> <tr> <td>Total</td> <td>246</td> </tr> </tbody> </table>		Section	Number of staff	Directorate of Veterinary Services	62	Department of Epizootic, Disease Control and Epidemiology	(27)	Department of Veterinary Services	(12)	Department of Animal Health	(23)	Directorate of Livestock Development	78	Department of Animal Production	(65)	Department of Livestock Marketing	(13)	Directorate of Fisheries Development	33	Directorate of Research, Extension, Training & Planning	-	Directorate of Range Management and Pasture Improvement	37	Directorate of Finance and Administration	36	County Vet. Coordination Office	-	Total	246																																																																							
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Services provided by State MARF and local government																																																																																																						
<p>(Animal production services)</p> <ul style="list-style-type: none"> Promotion of dairy development/milk production and collection, processing and distribution, marketing to the consumers and processors in Juba Promotion of poultry production, processing and distribution Training of various categories of stakeholders in livestock improvement techniques Development of extension and training materials Extension services and livestock provision by the state livestock and poultry demonstration centre <p>(Animal health services)</p> <ul style="list-style-type: none"> Vaccination/treatment/drugs on cost recovery basis Disease surveillance and control 																																																																																																						

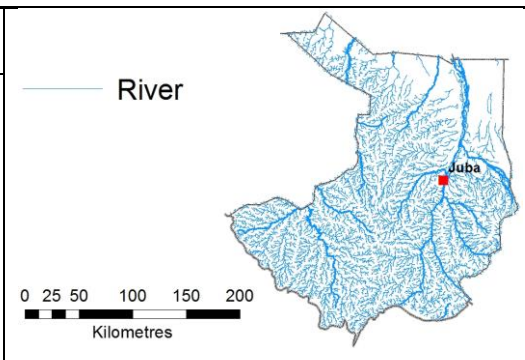


9.6 Livestock			
Services provided by National government institutions			
No national government organisations are in the state.			
Services provided by DPs and NGOs			
Organisation	Activities	Area	Period
VSF (Vétérinaires Sans Frontières) Belgium	<ul style="list-style-type: none"> • Deliver training on meat hygiene • Provide veterinary drugs 	Terekeka and Juba Counties	(Information not available)
NPA (Norwegian People's Aid)	<ul style="list-style-type: none"> • Train CAHWs on livestock management • Provide veterinary equipment 	Kajo-Keji, Terekeka, Juba and Lainya Counties	(Information not available)
FAO	<ul style="list-style-type: none"> • Provide vaccine and veterinary drugs through ministries 	Yei, Lainya and Morobo Counties	(Information not available)
NICODO (Nile Basin Community Development Organisation)	<ul style="list-style-type: none"> • Deliver service on treatment and livestock vaccination • Deliver training on milk hygiene to livestock keepers • Provide training to livestock keepers and CAHWs • Collect milk from cattle camps and produce fresh milk and yogurt • Establish a veterinary clinic supported by the milk processing factory • Implement goat restocking program for women's group in cooperation with other NGOs 	Juba County	(Information not available)
CEPA (Central Equatoria Poultry Association, Local community organisation)	<ul style="list-style-type: none"> • Coordinate poultry farmers and provide extension services in cooperation with the State MARF 	(Information not available)	(Information not available)
World Vision	<ul style="list-style-type: none"> • Provide chicks to develop poultry production 	(Information not available)	(Information not available)
Source: CAMP survey team. 2013. *CAHW: Community Animal Health Worker			
Services provided by private sector			
<p>(Agro-dealer)</p> <ul style="list-style-type: none"> • A number of agro-dealers provide veterinary drugs and technical advices to livestock keepers. <p>(Livestock market)</p> <ul style="list-style-type: none"> • (Information not available) <p>(Slaughter house)</p> <ul style="list-style-type: none"> • (Information not available) <p>(Others)</p> <ul style="list-style-type: none"> • (Information not available) 			
Livestock population			
Type of Animal	Population in Terekeka County		
Cattle	2,000,000		
Goat	1,800,000		
Sheep	1,200,000		
*Livestock population data in other counties is not available. Source: State MARF.			

Livestock diseases				
Type of animal	Type of disease	Outbreak area in last 2 years		
Cattle	East Coast fever, Haemorrhagic septicaemia, Black quarter, Trypanosomiasis, Contagious bovine pleuropneumonia, Internal parasite, Foot and mouse disease, Tick borne disease, Liver flu, Anthrax, Fasciolosis, Brucellosis, Mange, Lumpy skin disease.	East Coast Fever (2010 and 2011, Terekeka) Black quarter, Haemorrhagic septicaemia (2013, Terekeka)		
Sheep and goat	Peste des petits ruminants, Contagions caprine pleuropneumonia, Mange, Internal parasite, Foot rot, Pneumonia	Peste des Petits Ruminants (2013, Lanya)		
Poultry	Newcastle disease, External parasites, Helminthiasis, Salmonellosis, Coccidiosis, Fowl typhoid, Respiratory disease	Newcastle Disease (2013) (Area information not available)		
Pig	Internal and external parasites	There was no outbreak in the last 2 years.		
Canine	Rabies, Internal and external parasites, Mange	There was no outbreak in the last 2 years		
Source: State MARF.				
Animal health issues				
<ul style="list-style-type: none"> • Lack of laws and regulations • Trans-boundary disease due to livestock cross border movement • Floods cause more diseases. • Lack of veterinary drugs • Limited technical advices and extension services. 				
Market				
Type of livestock and livestock product	Market			
Cattle	Juba (primary and secondary) Terekeka (primary market) Yei (primary and secondary market) Kajio kaji (terminal, primary and secondary market)			
Sheep and goat	All counties (primary and secondary market)			
Poultry	All counties (primary market) (Imported poultry from Uganda is in the market)			
Hide and skin	Juba primary market, Uganda and Kenyan secondary market			
Source: CAMP survey team. 2013.				
Market price				
Item	Unit	Price (SSP)		
		Low season		High season
Meat (beef)	1 kg	(Data not available)	30 - 30	(Data not available)
Meat (sheep and goat)	1 kg	(Data not available)	40 - 40	(Data not available)
Fresh milk (Terekeka)	600 ml	(Data not available)	2 - 2	(Data not available)
Yogurt	500 ml	(Data not available)	3 - 3	(Data not available)
Milk (fresh, Juba)	500 ml	(Data not available)	4 - 4	(Data not available)
Sheep and goat (Yei)	Head	(Data not available)	220 - 270	(Data not available)
Cattle (Juba)	Head	(Data not available)	1,200 - 3,500	(Data not available)
Meat (pork)	1 kg	(Data not available)	40 - 40	(Data not available)
Egg	Each	(Data not available)	1 - 1	(Data not available)
Chicken	Each	(Data not available)	60 - 90	(Data not available)
Frozen chicken (Imported from Thailand and Brazil)	1 kg	(Data not available)	25 - 30	(Data not available)
Hide	Each	(Data not available)	5 - 5	(Data not available)
Skin	Each	(Data not available)	7 - 10	(Data not available)
Honey	600 ml	(Data not available)	10 - 10	(Data not available)
Source: CAMP survey team. 2013.				
*This is not a representative sample.				

Taxes and charges					
(Traders in Terekeka)					
Type		Cost (SSP)		Frequency	
Milk market fee (ground)		1		Daily	
Auction fees for cattle		30		Daily	
Auction fees for sheep/goat		5		Daily	
Butcher license		200		Annually	
Market fees for butchery		20		Monthly	
Source: CAMP survey team. 2013. *This is not a representative sample.					
Major livestock species and products by livelihood zone					
Greenbelt		Hills and Mountains		Ironstone Plateau	
Type of Animal	Breed	Type of Animal	Breed	Type of Animal	Breed
Cattle	Nilotic and Logari	Cattle	Nilotic and Logari	Cattle	Nilotic and Logari
Sheep and goat	Nilotic, Toposa, Dwarf, Sannan and Tong burg	Sheep and goat	Nilotic, Toposa, Dwarf, Sannan and Tong burg	Sheep and goat	Nilotic, Toposa, Dwarf, Sannan and Tong burg
Pig	Local	Pig	Local	Pig	Local
Poultry	Local and exotic	Poultry	Local and exotic	Poultry	Local and exotic
Bee	Local	Bee	Local		
Livestock products		Livestock products		Livestock products	
<ul style="list-style-type: none"> Meat (cow, sheep, goat, pig and poultry) Yoghurt Honey Hide and skin Milk (Fresh and sour) Ghee Egg 		<ul style="list-style-type: none"> Meat (cow, sheep, goat, pig, and poultry) Yoghurt Honey Hide and skin Milk (Fresh and sour) Ghee Egg 		<ul style="list-style-type: none"> Meat (cow, sheep, goat, pig and poultry) Yoghurt Hide and skin Milk (Fresh and sour) Ghee Egg 	
Source: CAMP survey team. 2013.					
Livestock related facilities and trade routes					
<p>The map illustrates the distribution of livestock-related facilities and trade routes across Central Equatoria State. It features a legend where single-headed blue arrows represent trade routes and double-headed green arrows represent migration routes. Cattle trade routes are shown in blue, while sheep and goat trade routes are shown in green. Facilities, including livestock markets and slaughterhouses, are indicated by red dots. Key locations such as Yambio, Mundri, Lakes, Bor, Torit, and Magwi are labeled. Grazing areas are marked with green ovals. The map also shows the border with Uganda to the south.</p>					
Source: CAMP survey team. 2013.					

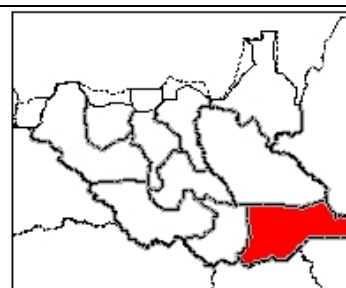
Cross-cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • With the absence of clear land tenure policy, land issues for livestock infrastructures are found. <p>(Migration)</p> <ul style="list-style-type: none"> • There are no regular seasonal migration routes because of abnormal climate and insecurity. <p>(Conflict and insecurity)</p> <ul style="list-style-type: none"> • Conflicts caused by scarce natural resources (water and grazing) among pastoralists and between pastoralists and sedentary farmers • Cattle raiding has become a major source of insecurity in the state. <p>(Gender disparities)</p> <ul style="list-style-type: none"> • Unequal ownership rights of cattle • Widows are allowed to own cattle of their late husbands but they do not have right to sell the cattle. When widows want to sell them, consultations with their relatives are required. • Women have the right to own and sell poultry. <p>(Drought and floods)</p> <ul style="list-style-type: none"> • Floods cause more diseases. • Cattle are forced to move to high land when severe flood affect the communities. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> • Insufficient support programs are prepared for IDPs and returnees.
Opportunities
<ul style="list-style-type: none"> • The livestock keepers are more commercial oriented. • High population of livestock • Piggery and honey industry potential areas in Yei • Sufficient labour from urban areas • High hides and skins demand • Vast land with abundant rangelands resources • Potential supply centre of fodder crop production
Challenges
<ul style="list-style-type: none"> • Limited number of technical staff • Veterinary services are insufficient to cure animal diseases. • Lack of extension services and poor government support • Inappropriate land use (e.g. grazing areas) • Poor slaughtering facilities • Investment environment is undeveloped in livestock sectors. • There are no effective countermeasures for inter-state cattle raiding. • Long distance livestock migration occasionally causes tension between pastoralists and sedentary agriculturalists. • Veterinary drugs are not available due to insufficient budget.

9.7 Fisheries

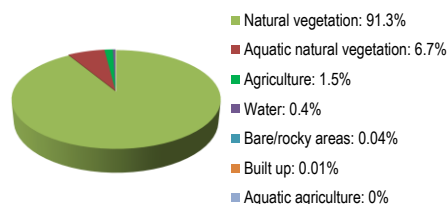
Numbers of fishing households (ANLA 2012)		22,919	
Fish production	Probably from 20,000 to 30,000 tonnes/year mostly from the Terekeka County, but also from landing sites all down the Nile and smaller rivers and lakes throughout the state. State contains Juba, with 1.2 million people, so is a destination for fish from everywhere. Fish sold fresh if possible to Juba, but also smoked in Terekeka.		
Fish exports	Smoked fish from the Terekeka area finds its way to all of Greater Equatoria, and north to Lakes, WBG and NBG States.		
Fish imports	Smoked from Uganda via Yei and Nimule, and from other states in South Sudan (Unity, Lakes and Jonglei). Fresh to Juba from Uganda. Dried (Daga'a) from Uganda.		
Seasonality	Along the Nile all year but best in the wet season. In the areas away from the Nile a dry season fishery since in the wet season the fishing households are busy cultivating. The Lakes of Yelon, Bayak, Yor and Nuni are drying and fish production from them is reduced. Production from these lakes is very seasonal.		
Landing sites	Seasonal and permanent landing sites on the Nile at and around Terekeka and elsewhere on the Nile. More than 100 fishing camps in the Terekeka area alone.		
Gears	Gill nets, long lines, cast nets		
Vessels	Planked and dugout canoes mainly. Occasional fibreglass boat where donors have been active (Terekeka). Large number of motorised steel vessels for transport on the Nile.		
Informal taxation	Particularly heavy on transporters from Terekeka to Juba. Also taxes imposed on fish coming up from Uganda to Yei (and through Nimule to Juba)		
Investment	Concentrated in Juba. Ice machines, cool boxes, etc. for transport and storage of fish (mostly from Bor). Markets and stock of fish, dried and fresh.		
Aquaculture			
		<p>In Yei County there are 49 ponds, of which 14 are operating. Lainya Country has 9 fish ponds, 22 in Morobo County, 7 in Kejukeji and 3 in Juba County of which 2 are operative. These have been supported by NGOs and other donors. Production is still struggling. Problems with skills, feeds, seed, husbandry techniques. (also irregular support form NGOs) (Photo: A pond in Mugwo Payam near Yei)</p>	
Post-harvest and marketing			
<p>Terekeka in CES is the major fish producing area in the state and produces both fresh and smoked fish. The fresh fish is collected by traders and transported to Juba where it is sold in markets and direct to customers. The smoked fish is very good quality and is also sold through middlemen to consumers throughout the whole of Greater Equatoria, being seen in Yei, Yambio, Torit and smaller towns in the region. It keeps well but suffers from beetle attack if kept for too long. The photo shows smoked fish from Terekeka.</p> <p>Fish is coming in to CES from Uganda and stations up the Nile river in Jonglei, Unity and Lakes. Fresh from Jonglei, Terekeka and Uganda goes to Juba, dried from Jonglei, Unity and Lakes, and smoked from Terekeka and Uganda. The market in Juba is huge. At least 400 tonnes of dried fish comes from Jonglei, Lakes and Unity states to Juba annually. Fresh fish, Tilapia and Nile Perch comes up from Uganda. (~300 tonnes annually). Support from SNV is being sought to provide two hygienic structures for fish retailing in Juba, with insulated chill storage.</p>			

10 Eastern Equatoria State (Capital: Torit)

10.1 Basic Information	
Population (2008)^a	906,161 (5 th) Male: 465,187 Female: 440,974
Projected population (2013)^b	1,059,862 (5 th)
Area^c	74,255 km ² (5 th)
No. of Counties, Payams and Bomas (2009)^d	8 Counties
	53 Payams
	262 Bomas
Food secure population (2012)^b	54% (7 th)
Access to improved drinking water (2009)^e	63% (4 th)
Literacy rate (15-24 years old) (2009)^e	26% (9 th)
Primary school gross enrolment rate (GER) (2010)^f	50% (10 th)



Land cover^g



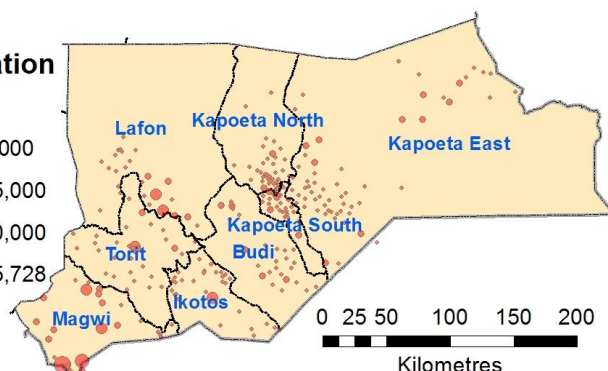
Source: ^a SSCSE. 2010. Southern Sudan Counts: Tables from the 5th Sudan Population and Housing Census, 2008; ^b WFP. 2013. ANLA; ^c FAO. 2011. Land Cover Atlas of the Republic of South Sudan; ^d Original data source of NBS. 2012. NBHS 2009; ^e NBS. 2012. NBHS 2009; ^f MoE. 2010. EMIS; ^g NBS. 2011. South Sudan Statistical Yearbook 2011.

Administrative districts (counties)

County	Estimated Population (2013) ^a	Pop. density (ppl/km ²) ^b
Magwi	189,440	35.8
Kapoeta East	187,431	6.1
Lafon	119,241	7.3
Budi	113,993	19.6
Kapoeta North	113,375	19.4
Ikotos	97,578	27.3
Kapoeta South	96,745	82.2

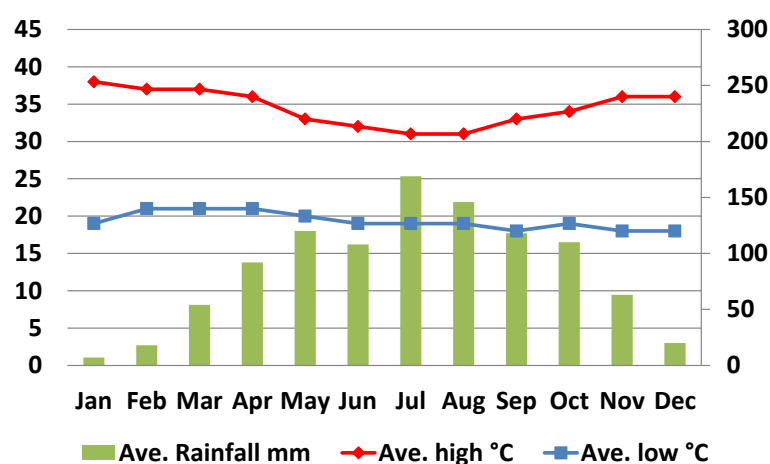
Boma Population

- 1 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,728



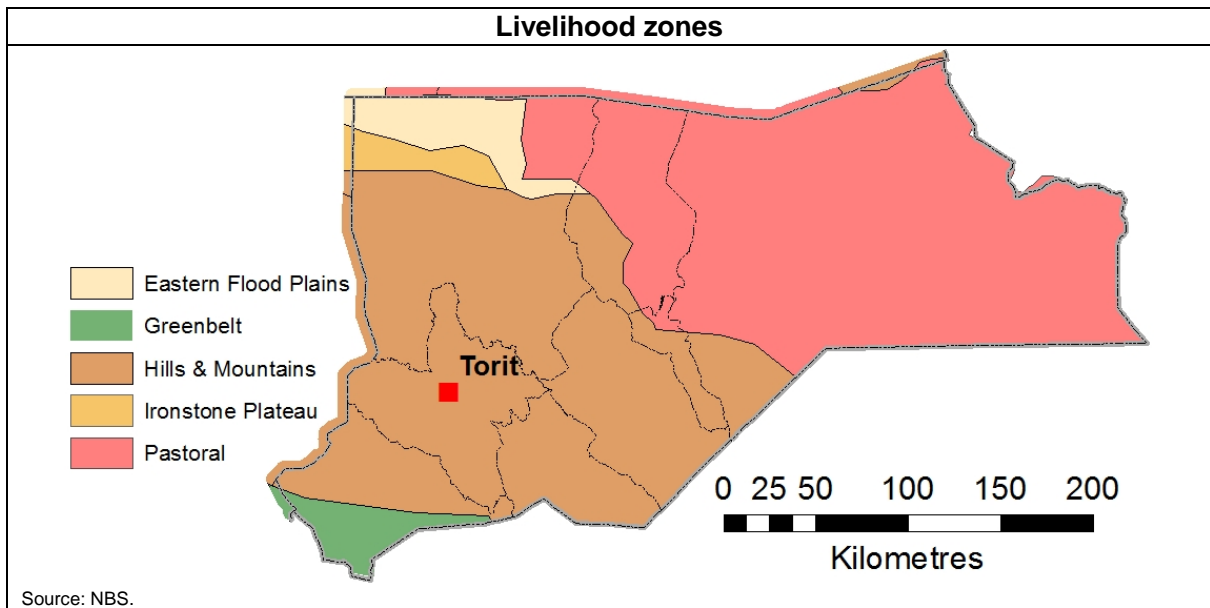
Source: (Map) NBS; (Table)^a WFP. 2013. ANLA; ^b Land scale data applied from FAO. 2011. Land Cover Atlas of the Republic of South Sudan.

Climate chart (Torit)

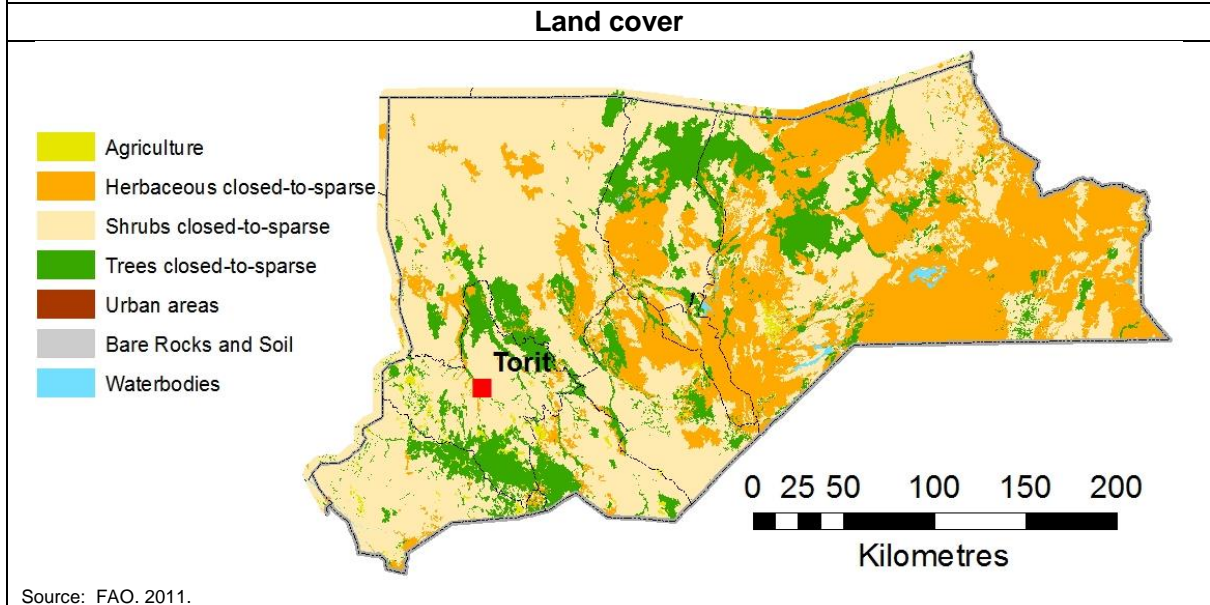


Annual ave. high temp.	34.3°C
Annual ave. low temp.	19.3°C
Average temperature	26.8°C
Ave. annual precipitation	1,025 mm

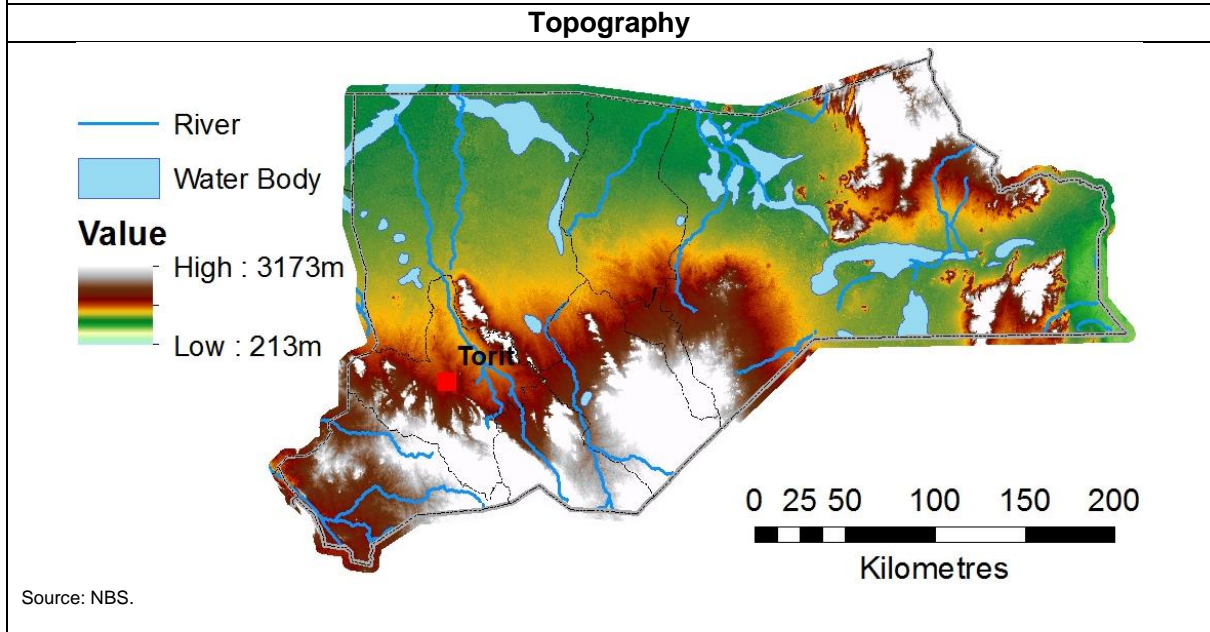
Source: Climatedata.eu. 2013. Climate Torit.
<http://www.climatedata.eu/climate.php?loc=suzz0008&lang=en> (accessed on 25th August 2013).



Source: NBS.

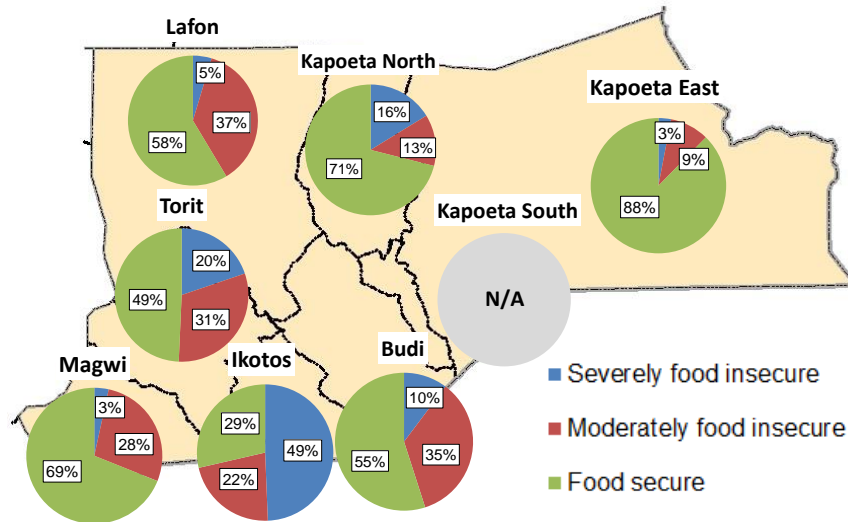


Source: FAO. 2011.



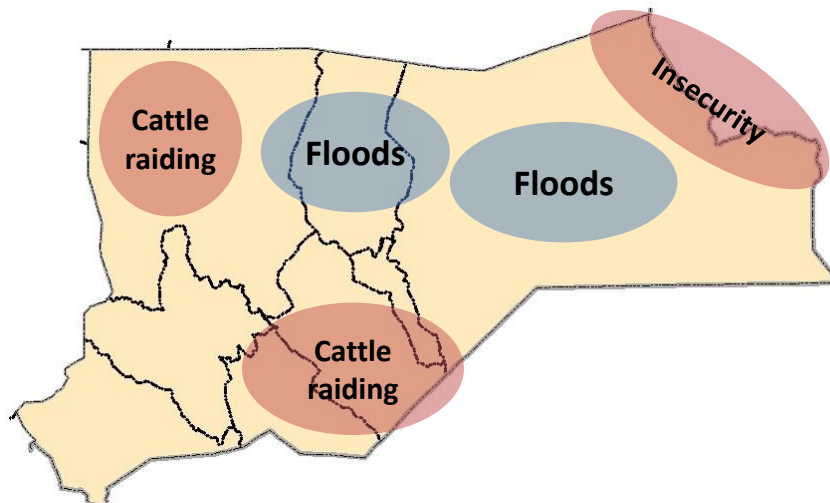
Source: NBS.

Estimated food security status by county (2013)



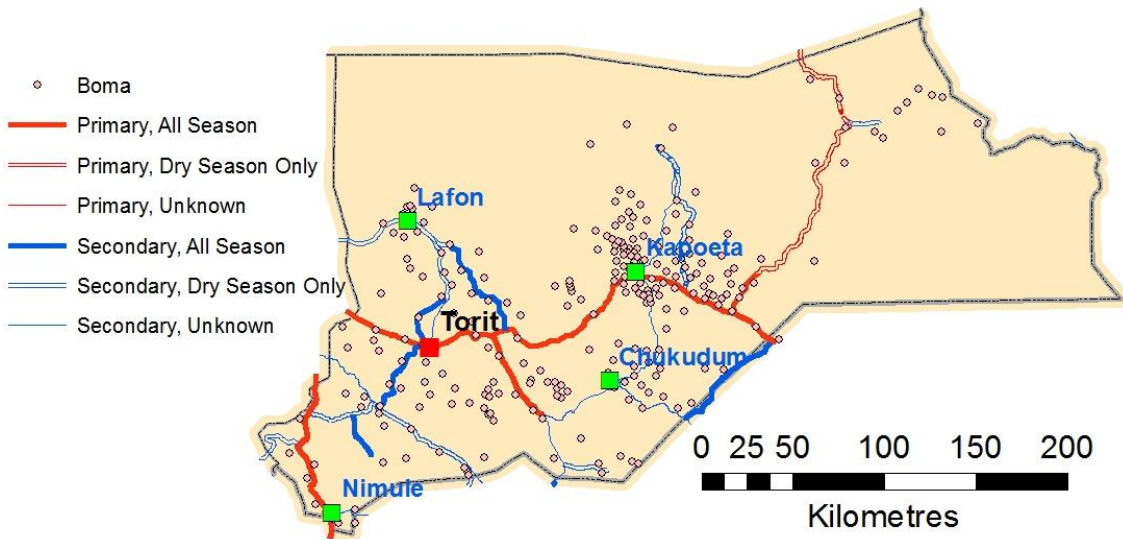
Source: WFP. 2013. ANLA.

Insecurity and natural disaster



Source: CAMP survey team. 2013.

Road and Boma location



Source: Road (WFP. 2013), Boma location (NBS).

10.2 State Ministry of Agriculture, Forestry, Cooperative and Rural Development (MAFCRD)																																					
Organogram			Staff																																		
<pre> graph TD Minister --> DG[Director General] DG --> DCRD[Directorate of Cooperatives and Rural Development] DG --> DF[Directorate of Forestry] DG --> DP[Directorate of Planning] DG --> DA[Directorate of Agriculture] DG --> DFA[Directorate of Finance and Administration] </pre>			Breakdown of information not fully available <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Section</th> <th style="text-align: center;">Number of staff</th> </tr> </thead> <tbody> <tr> <td>Directorate of Cooperative and Rural Development</td> <td style="text-align: right;">40</td> </tr> <tr> <td> Department of Cooperative</td> <td style="text-align: right;">(18)</td> </tr> <tr> <td> Department of Rural Development</td> <td style="text-align: right;">(22)</td> </tr> <tr> <td>Directorate of Forestry</td> <td style="text-align: right;">41</td> </tr> <tr> <td> Department of Afforestation, Agro-Forestry and Extension</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td>Directorate of Planning</td> <td style="text-align: right;">7</td> </tr> <tr> <td> Directorate of Planning, Budgeting and M&E</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td>Directorate of Agriculture</td> <td style="text-align: right;">51</td> </tr> <tr> <td> Department of Plant Protection</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td> Department of Crop production, Mechanization and Irrigation</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td> Department of Horticulture and Nutrition</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td> Department of Extension Research</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td>Directorate of Finance and Administration</td> <td style="text-align: right;">40</td> </tr> <tr> <td> Department of Establishment</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td> Department of Accounts and Logistics</td> <td style="text-align: right;">(-)</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">179</td> </tr> </tbody> </table>	Section	Number of staff	Directorate of Cooperative and Rural Development	40	Department of Cooperative	(18)	Department of Rural Development	(22)	Directorate of Forestry	41	Department of Afforestation, Agro-Forestry and Extension	(-)	Directorate of Planning	7	Directorate of Planning, Budgeting and M&E	(-)	Directorate of Agriculture	51	Department of Plant Protection	(-)	Department of Crop production, Mechanization and Irrigation	(-)	Department of Horticulture and Nutrition	(-)	Department of Extension Research	(-)	Directorate of Finance and Administration	40	Department of Establishment	(-)	Department of Accounts and Logistics	(-)	Total	179
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Total	179																																				
Source: State MAFCRD.			Source: State MAFCRD.																																		
Budget			Strategic plan																																		
Category	2012/13 Budget	2011/12 Outturn	2013/14 Budget																																		
Salaries	2,512,579	(Data not available)	2,593,676																																		
Salaries	2,021,767	(Data not available)	2,102,864																																		
Conditional salaries	490,812	(Data not available)	490,812																																		
Operating	495,166	(Data not available)	695,166																																		
Operating Costs	275,520	(Data not available)	475,520																																		
Conditional Operating cost	219,646	(Data not available)	219,646																																		
Transfers	-	(Data not available)	-																																		
Others	-	(Data not available)	-																																		
Capital	1,669,937	(Data not available)	1,169,937																																		
Conditional transfers	1,669,937	(Data not available)	569,937																																		
Other capital expenses	-	(Data not available)	600,000																																		
Overall total	4,677,682	(Data not available)	4,458,779																																		
Source: State MAFCRD. Unit: SSP																																					
EES policy statement (2012-13)																																					
Objective	(Information not available)																																				
Budget	(Information not available)																																				
Plan	(Information not available)																																				
Activities	(Information not available)																																				
Services provided by State MAFCRD and local government																																					
(Technical advice)																																					
<ul style="list-style-type: none"> • Technical advice is provided to farmers in cooperation with DPs and NGOs. 																																					
(Seeds and tools provision)																																					
<ul style="list-style-type: none"> • Seeds are provided to farmers in cooperation with DPs and NGOs. • Seed provision does not coincide with sowing season due to logistical issues. 																																					
(Demo farm and field day= visit to field to share best agricultural practices)																																					
<ul style="list-style-type: none"> • Demo farms are installed in some areas. 																																					
(Tractor hiring service)																																					
<ul style="list-style-type: none"> • Tractor hiring service is provided to farmers but the number does not meet farmers' needs. • The majority of the tractors is not sufficiently maintained and utilised due to lack of spare parts. 																																					

10.3 Crop			
Services provided by DPs and NGOs			
Organisation	Activities	Area	Target
FARM Project/USAID	<ul style="list-style-type: none"> Seed and cutting provision (maize, groundnut, cassava, bean, sesame, millet) Provide training for extension workers Land preparation support (80% of the charge will be supported by the project) 	Torit, Magwi and Ikotos Counties	Farmers in the pilot areas (FBOs: Farmer-based organisations)
Caritas International and SNV (Srpsko narodno vijeće)	<ul style="list-style-type: none"> Provide technical advice Organise farmers groups Provide agricultural inputs Organic farm training Build a farmers training centre Teach nutrition and hygiene 	Ikotos and other Counties	Farmers in the pilot areas
Catholic Relief Services	<ul style="list-style-type: none"> Training extension workers Provide agricultural inputs to farmers 	(Information not available)	Farmers in the pilot areas
*There are a number of DPs and NGOs in the state. The above information collected by CAMP team is shown as an example.			
Services provided by private sector			
(Tractor hiring service)			
<ul style="list-style-type: none"> (Information not available) 			
(Agro-dealer)			
<ul style="list-style-type: none"> Some agro-dealers are available. They provide improved seeds, fertilizers and tools. Some of the prices are shown below: 			
Item	Origin of products	Retail Price (SSP)	
Maize seeds (Hybrid KH600-14E)	Kenya (Fresco)	25/kg	
Maize (Hybrid, chemical coating)	Kenya/Uganda (Naseco)	10/5 kg	
Sukuma wiki seeds	Kenya (Easeed)	20/25 g	
Onion seeds(Red Creole C-5)	Kenya (Easeed/Vegflo)	35 (Easeed) 30 (Vegflo)/25 g	
Okra (Pusa Sawani)	Kenya (Vegflo)	25/10 g	
Cabbage seeds (Copenhagen market)	East Africa seed	30/50 g	
Tomato (Money maker Tanya)	East Africa seed	30/50 g	
Onion (Bombay red)	East Africa seed	30/50 g	
Sulban (Insecticide)	Kenya (Osho)	35/100 ml	
Ogor 40EC (Insecticide)	Kenya (Osho)	15/30 ml	
Urea	USA (packed in Uganda)	30/25 kg	
DAP	USA (packed in Uganda)	30/25 kg	
Hoe	China	20-30 each depending on size	
Panga	China	16-17 each	
Grass slasher	China	20 each	
Shovel	China	30 each	
(Financial institution)			
<ul style="list-style-type: none"> No financial institutions for farmers are found in the state. 			

Market						
Agricultural products and the origin (Torit, April 2013)						
(Crop)			(Others)			
Item	Type	Origin	Item	Type	Origin	
Sorghum	Import	Uganda	Tomato	Import	Uganda	
	Domestic	EE State		Domestic	EE State	
Maize	Import	Uganda	Onion	Import	Kenya	
	Domestic	EE State		Domestic	-	
Maize flour	Import	Uganda	Okra	Import	-	
	Domestic	ES State		Domestic	EE State	
Millet	Import	Uganda	Jew's mallow	Import	-	
	Domestic	-		Domestic	EE State	
Cassava	Import	Uganda	Amaranthus	Import	-	
	Domestic	Torit, Magwi		Domestic	EE State	
Groundnut	Import	-	Cowpea	Import	-	
	Domestic	EE State		Domestic	EE State	
Bean	Import	Uganda	Eggplant	Import	-	
	Domestic	EE State		Domestic	EE State	
Sesame	Import	-	Cabbage	Import	Uganda	
	Domestic	EE State		Domestic	-	
Irish potato	Import	Kenya				
	Domestic	-				

Source: CAMP survey team. 2013.
*1 This is not a representative sample.
*2 EE: Eastern Equatoria

Source: CAMP survey team/ 2013.
*1 This is not a representative sample.
*2 EES: Eastern Equatoria

Market price (Retail price, Torit, April 2013)						
Item	Unit	Price (SSP) (range)				
		Low season		High season		
Maize (Import)	Sack (40 kg)	June-July	65	-	80	Apr-May
Cassava flour (Import)	Sack (50 kg)	May-June	130-150	-	170	Apr-May
Sorghum (Import)	Sack (50 kg)	Jan-May	60	-	120	June-July
Millet (Import)	Sack (50 kg)	Sep-Nov	150	-	200	June-July
Tomato (Import)	Box	Dry season	350	-	600	Apr-June
Okra (Domestic)	Piece	Depending on demand	1 8 pieces	-	1 3 pieces	Depending on demand
Irish potato (Import)	130 kg	Sep-Jan	300	-	450	May-Aug
Amaranthus (Domestic)	Piece	(Data not available)	1 10 pieces	-	2 15 pieces	(Data not available)
Jew's mallow (Domestic)	Sack	July-Oct	30	-	50	Dec-May
Eggplant (Domestic)	Piece	Apr-Oct	5 4 pieces	-	3 2 pieces	Nov-Mar
Beans (Import)	1 kg	Nov-Jan	4	-	6	Fab-May
Onion (Import)	1 kg	Jan-May	6	-	8	June-Dec

Source: CAMP survey team 2013.
*This is not a representative sample.

Transportation cost (Torit, April, 2013)				
Type	Unit	Currency	Cost	
Transport from Uganda to Torit	Truck	Ush	2,500,000	
Transport from Kampala to border	Truck	SSP	1,000	
Transport from border to State checkpoint	Truck	SSP	150	

Source: CAMP survey team 2013.
*This is not a representative sample.

Taxes and charges (Torit, April, 2013)			
(Wholesaler size 4mx4m)			
Type	Cost (SSP) (range)		Frequency
Licence	300-700		Annually
Rent	500		Monthly
Security fee	60		Monthly
Garbage collection fee	5		Weekly
Profit tax	500-700		Annually
(Retailer)			
Type	Cost (SSP) (range)		Frequency
Licence	300-700		Annually
Rent	500		Monthly
Security fee	60		Monthly
Garbage collection fee	5		Weekly

Source: CAMP survey team. 2013.
*1 This is not a representative sample.
*2 Revenue tax: Customs 20%, State border 1%, County border 5% of commodity value.

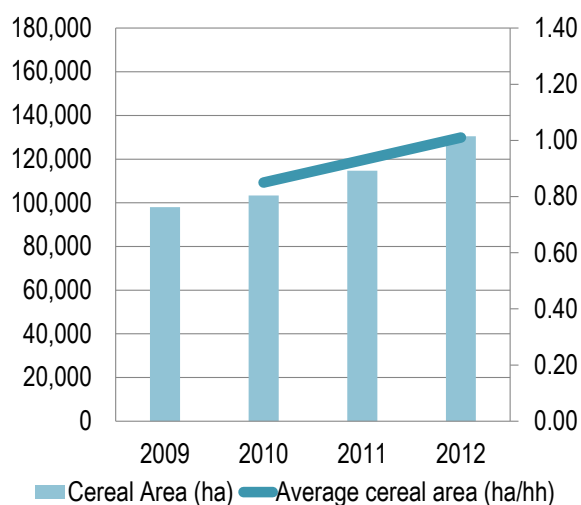
Crop production	
Farming household (%) (2012)	74
Farming household (No.) (2012)	129,195
Total cereal area (ha) (2012)	130,447 (4 th)
Cereal gross yield (t/ha) (2012)	1.08 (2 nd)
Gross cereal production (t) (2012)	140,963 (2 nd)
Average cereal area per household (ha/hh) (2012)	1.01 (3 rd)



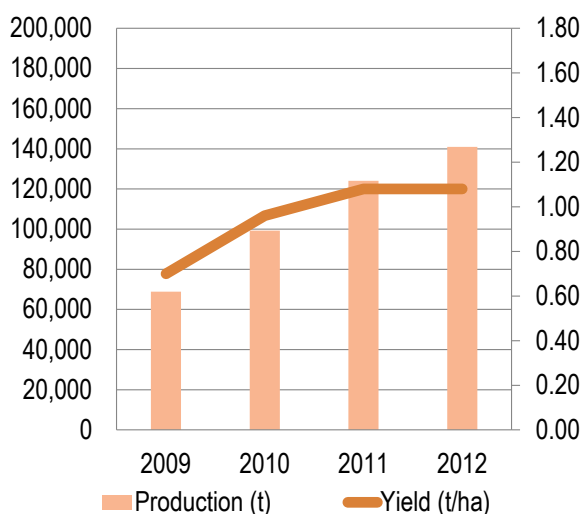
Source: FAO and WFP. 2013 CFSAM.

Cereal production (2009-2012)

Total cereal harvested area (ha) and average cereal area per household (ha/hh)



Total gross cereal production (t) and average cereal yield (t/ha)



Source: Aggregate from CFSAM 2010, 2011, 2012 and 2013.

Source: Aggregate from CFSAM 2010, 2011, 2012 and 2013.

Crop production by livelihood zone

Greenbelt		Hills and Mountains		Pastoral	
Major agricultural products					
Crop Maize Sorghum Bean Cassava Cash Crop Groundnut Sesame Banana Cowpea	Vegetable Okra Jew's mallow Irish potato Eggplant Tomato	Crop Sorghum Maize Cassava Bean Wheat Pearl millet Cash Crop Groundnut Sesame Cowpea	Vegetable Tomato Okra Amaranthus Eggplant Pumpkin	Crop Sorghum Maize Vegetable Okra Jew's mallow	

Cropping calendar

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maize	L	L	S	S			H	L	S			H
Cassava	L	S	S						H			
Tomato	L	L	S		H	H						
Irish potato	L	L	S				H					
Cowpea	L	L	S		H	H						
Eggplant	L	L	S				H					
Okra	L	L	S		H	H						
	L	S	T	H								

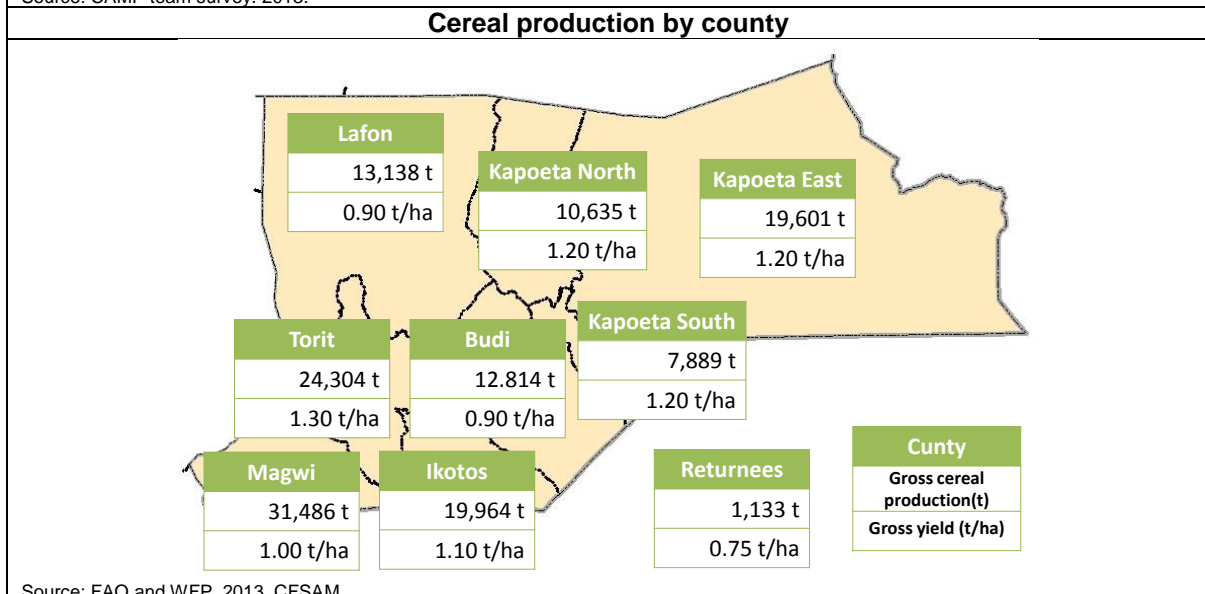
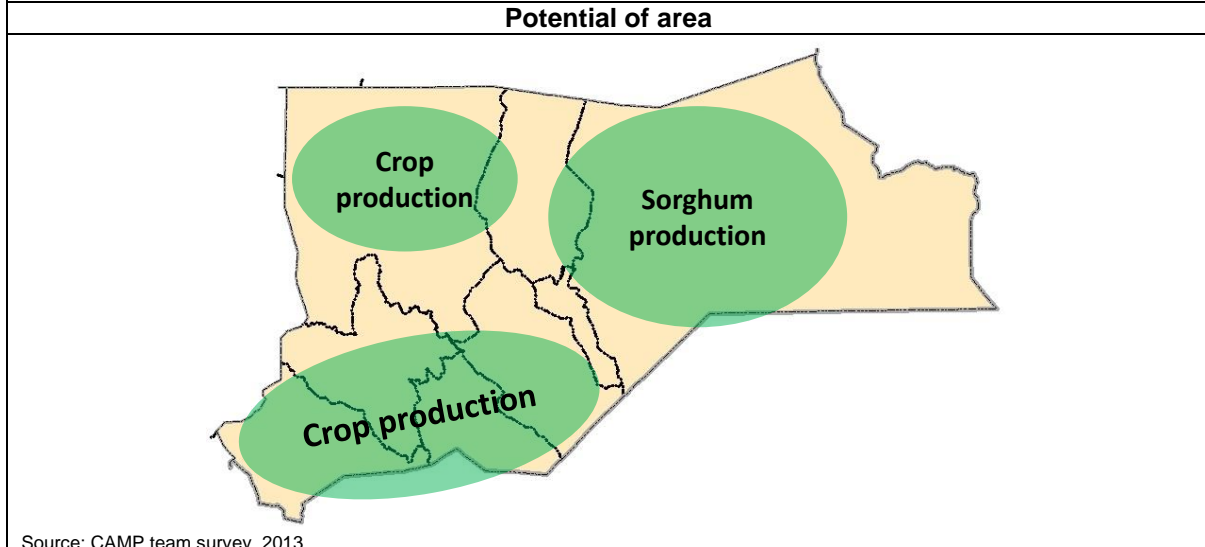
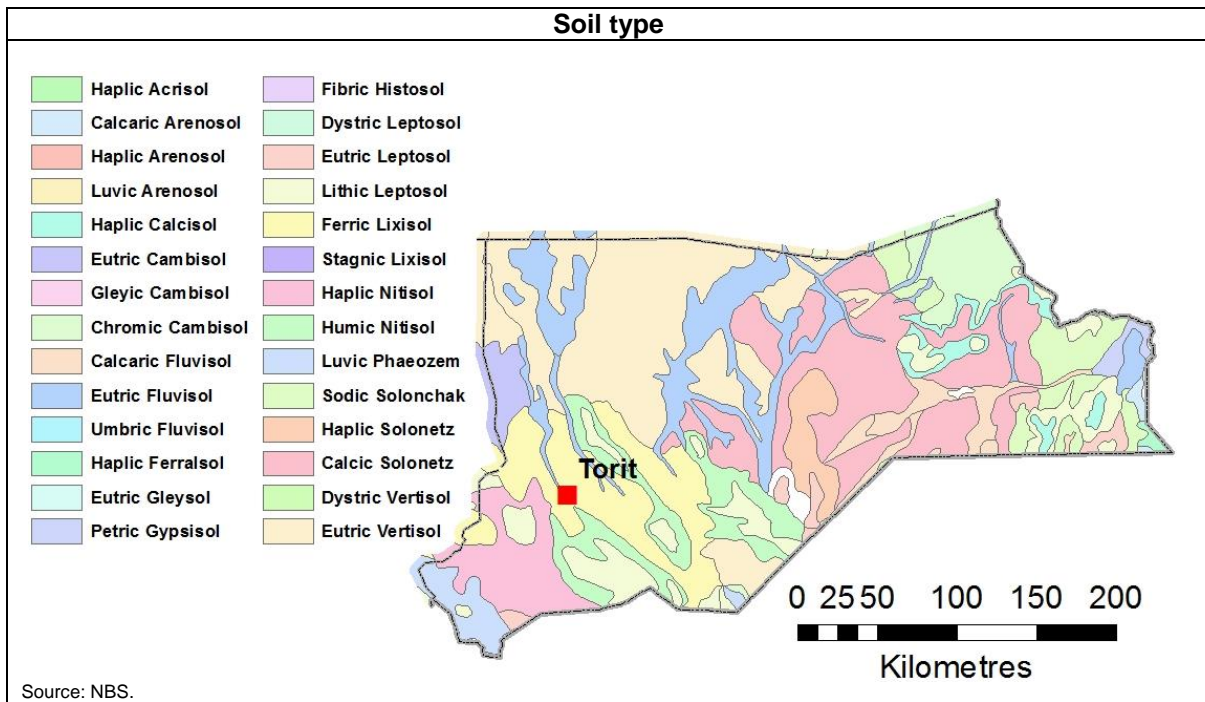
Source: CAMP survey team. 2013.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum			L	S	S		H	H	H			
Pearl millet			L	S	S		H	H				
Maize			L	S	S		H	H				
Cassava (Tuber, leave)			L	T	T				H	H	H	
Groundnut			L	S	S	S		H	H	H		
Sesame			L	S	S	S	S	H	H	H	H	
Bean			L	S	S	S	S	H	H	H	H	
Pumpkin			L	S	S			H	H			
Okra			L	S	S			H	H			
	L	S	T	H								

Source: CAMP survey team. 2013.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sorghum				L	S					H		
Maize				L	S				H			
Okra				L	S		H	H				
Jew's mallow				L	S		H	H				
	L	S	T	H								

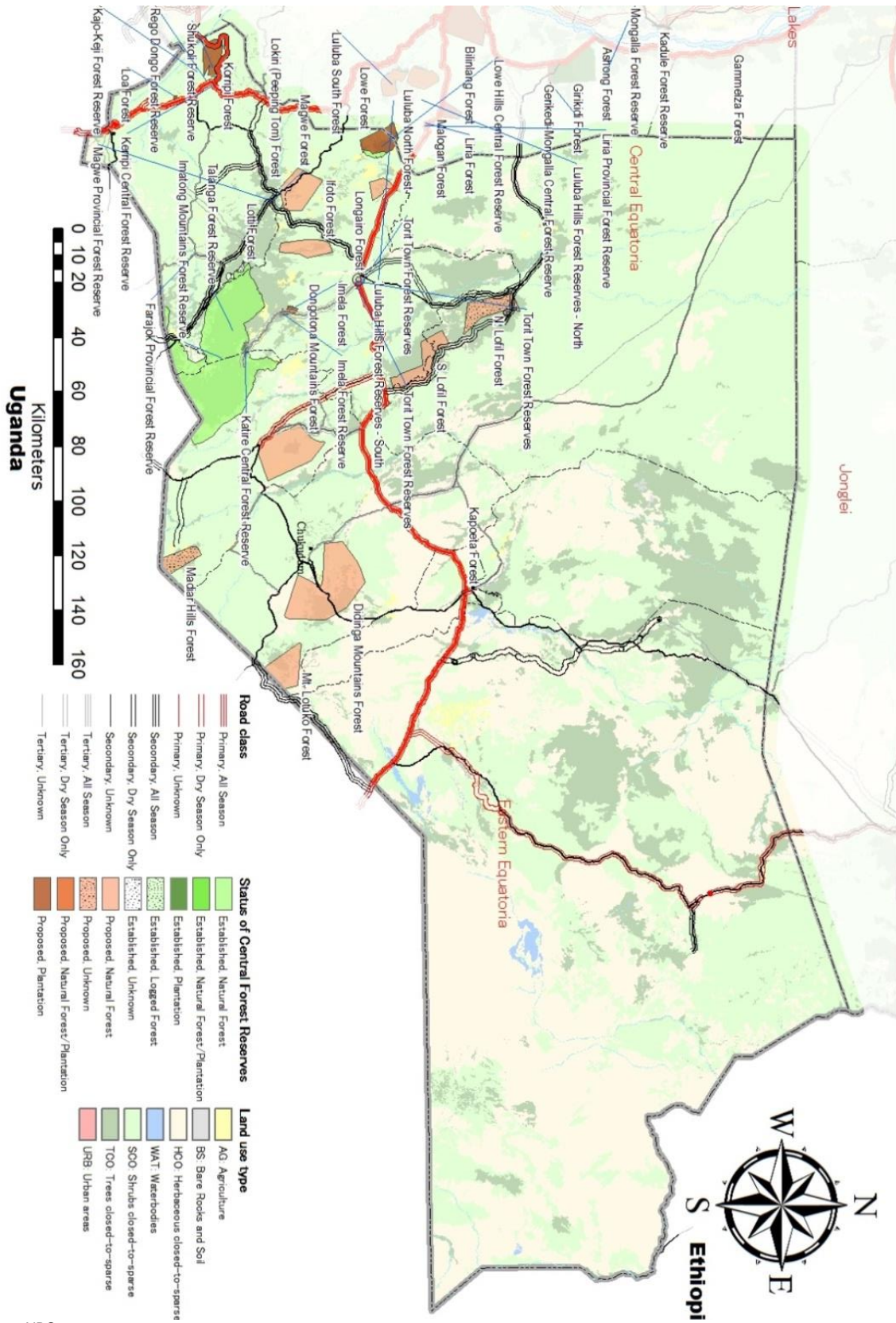
Source: CAMP survey team. 2013.



Cross cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Land boundary issues between pastoralists and sedentary farmers <p>(Gender)</p> <ul style="list-style-type: none"> • Women take important roles in agricultural production but they are not involved in the decision making process in farming activities. <p>(Security)</p> <ul style="list-style-type: none"> • Cattle raiding and tribal conflicts cause insecurity. <p>(IDPs and returnees)</p> <ul style="list-style-type: none"> • Support for IDPs and returnees is not sufficient to improve their livelihoods. <p>(HIV)</p> <ul style="list-style-type: none"> • The infection rate could be high. No survey has been conducted. • Sexually transmitted disease education is required to prevent infection.
Opportunities
<p>Overall</p> <ul style="list-style-type: none"> • Sufficient manpower
<p>Crop</p> <ul style="list-style-type: none"> • Vast unutilized land • Fertile land • Sufficient rainfall in Greenbelt and Hills and Mountains zones
Challenges
<p>Overall</p> <ul style="list-style-type: none"> • Feeder roads are not well established. • Poor access to financial institutions • High tax rates • High transport costs • High labour costs • Unskilled labour
<p>Crop</p> <ul style="list-style-type: none"> • Condition of storage facilities at local level is not adequate to keep agricultural products long term. • Appropriate agricultural inputs (seeds and tools) are not available for most farmers. • Few training opportunities for farmers and extension workers • Poor means of transport for extension activities • Insufficient budget for extension work

10.4 Forestry									
On-going and proposed projects									
List of on-going projects									
Project name	Objectives/activities				Duration			Annual cost	
UNEP Bur Nursery	Propagate seedlings for communities				(Information not available)			(Information not available)	
Norwegian People's Aid Agro-forestry	Encourage agro-forestry practices				(Information not available)			(Information not available)	
Source: CAMP team survey. 2013.									
List of proposed projects									
Project name	Objectives/activities				Duration			Annual cost	
Afforestation	Develop plantation				(Information not available)			(Information not available)	
Extension service	Support extension system				(Information not available)			(Information not available)	
Agro-forestry	Disseminate sustainable land use				(Information not available)			(Information not available)	
Saw milling	Promote timber production				(Information not available)			(Information not available)	
Source: CAMP team survey. 2013.									
Land cover percentage to total area									
County	AG	TCO	SCO	HCO	URB	BS	WAT	Total area	Total area (ha)
Budi	1.6%	12.0%	57.0%	29.3%		0.0%	0.1%	100.0%	582,757
Ikotos	5.8%	24.6%	61.6%	7.9%		0.0%		100.0%	356,914
Kapoeta East	0.4%	11.5%	34.1%	53.3%		0.0%	0.6%	100.0%	3,052,849
Kapoeta North	3.2%	29.6%	38.6%	28.2%		0.3%	0.0%	100.0%	583,174
Kapoeta South	7.0%	7.7%	23.1%	62.0%	0.2%		0.0%	100.0%	117,721
Lafon	0.1%	8.7%	80.1%	10.5%	0.0%	0.0%	0.6%	100.0%	1,624,494
Magwi	2.6%	14.7%	78.2%	4.1%	0.0%		0.2%	100.0%	528,696
Torit	4.7%	30.1%	61.2%	3.7%	0.1%		0.2%	100.0%	578,932
Total	1.5%	14.6%	52.7%	30.7%	0.0%	0.0%	0.4%	100.0%	7,425,537
Source: FAO. 2011. <i>Land cover atlas of South Sudan</i> . Rome: FAO.									
Legend: AG=Agriculture, TCO=Tree closed-to-sparse, SCO=Shrubs closed-to-sparse, HCO=Herbaceous closed-to-sparse, URB=Urban areas, BS=Bare Rocks and Soil, and WAT=Waterbodies.									

Location of Central Forest Reserves and land cover in 2009



Source: NBS.

10.5 State Ministry of Animal Resources and Fisheries (MARF)																																																															
Organogram		Organogram																																																													
<pre> graph TD Minister --> DG[Director General] DG --> DF[Directorate of Fisheries] DG --> DAVS[Directorate of Animal Production and Veterinary Services] DG --> DPT[Directorate of Planning, Research, Training and] DG --> DM[Directorate of Marketing] DG --> DAF[Directorate of Administration and Finance] </pre>		Breakdown of information not fully available <table border="1"> <thead> <tr> <th>Section</th> <th>Number of staff</th> </tr> </thead> <tbody> <tr><td>Director General</td><td>1</td></tr> <tr><td>Director of Veterinary Services and Livestock Development</td><td>1</td></tr> <tr><td>Director of Animal Production and Range Management</td><td>1</td></tr> <tr><td>Director of Fisheries</td><td>1</td></tr> <tr><td>Director of Marketing</td><td>1</td></tr> <tr><td>Director of Planning</td><td>1</td></tr> <tr><td>A/Commissioners</td><td>8</td></tr> <tr><td>District veterinary officer</td><td>8</td></tr> <tr><td>Livestock production officer</td><td>6</td></tr> <tr><td>Range management officer</td><td>1</td></tr> <tr><td>Animal health technician</td><td>6</td></tr> <tr><td>Animal health assistant</td><td>3</td></tr> <tr><td>Stock person</td><td>1</td></tr> <tr><td>Veterinary auxiliary</td><td>1</td></tr> <tr><td>Total</td><td>40</td></tr> </tbody> </table>		Section	Number of staff	Director General	1	Director of Veterinary Services and Livestock Development	1	Director of Animal Production and Range Management	1	Director of Fisheries	1	Director of Marketing	1	Director of Planning	1	A/Commissioners	8	District veterinary officer	8	Livestock production officer	6	Range management officer	1	Animal health technician	6	Animal health assistant	3	Stock person	1	Veterinary auxiliary	1	Total	40																												
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Services provided by State MARF and local government																																																															
<p>(Animal production services)</p> <ul style="list-style-type: none"> Technical advice and useful information are provided to livestock keepers including education activities for cattle raid prevention. Extension service is implemented but not fully functional. <p>(Animal health services)</p> <ul style="list-style-type: none"> Supervise livestock markets and slaughter houses/slabs/grounds Provide treatment and vaccination in cooperation with National MARF Conduct disease surveillance. 																																																															

10.6 Livestock

Services provided by national government institutions

Integrated demonstration farm is installed in Kapoeta. It introduces cross-bleeding and ranching practices.

Services provided by DPs and NGOs

Organisation	Activities	Area	Period
FAO	<ul style="list-style-type: none"> Provide vaccines and vet. drugs Deliver training to CAHWs Conduct East Coast Fever eradication program Deliver milk handling program to youth with CAHWs 	Torit County	(Information not available)
FARM Africa	<ul style="list-style-type: none"> Capacity building for CAHWs Provide veterinary drugs 	Kapoeta South County	Ended September 2013
SNV (Srpsko narodno vijeće), Netherland	<ul style="list-style-type: none"> Capacity building for CAHWs Prepare holding grounds at auction yards Provide fencing material for livestock keepers Construct livestock market 	Torit County	
DOT (Diocese of Torit)	<ul style="list-style-type: none"> Provide animal health service to livestock keepers Deliver training to CAHWs 	Greater Kapoeta	Ended March 2013

Source: CAMP survey team. 2013.

*CAHW: Community Animal Health Worker

Services provided by private sector

(Veterinary services)

- Private veterinarians provide treatments and veterinary drugs.
- Private pharmacies supply veterinary drugs and useful information.

(Livestock product)

- Private organisations produce fresh milk (filtered and boiled) and yoghurt.

(Livestock market)

- Livestock markets at Torit and Kapoeta South Counties are run by traders union.

Livestock population

County	Type						
	Cattle	Sheep	Goat	Poultry	Donkey	Camel	Pig
Torit	250,000	175,000	350,000	90,000	25	0	2,500
Magwi	20,000	80,000	110,000	350,000	0	0	2,400
Kapoeta South	400,000	380,000	820,000	170,000	340	50	5,200
Kapoeta North	560,000	450,000	900,000	200,000	450	0	1,500
Kapoeta East	650,000	760,000	1,400,000	130,000	700	1,000	2,015
Budi	350,000	250,000	750,000	250,000	300	0	105
Ikotos	120,000	145,000	320,000	160,000	200	0	0
Lafon	150,000	160,000	550,000	150,000	0	0	0
Total	2,500,000	2,400,000	5,200,000	1,500,000	2,015	1,050	13,720

Source: State MARF .2012. Policy Statement 2012-2013.

Livestock diseases		
Type of Animal	Type of disease	Outbreak area in last 2 years
Cattle	Contagious bovine pleuropneumonia, East Coast fever, Haemorrhagic septicaemia, Trypanosomiasis, Brucellosis, Black quarter	East Coast Fever in Torit County Contagious Bovine Pleura Pneumonia in Lafon and Pachiti Counties Black Quarter in Ikotos and Lafon Counties Haemorrhagic Septicaemia in Kapoeta North County
Sheep and goat	Peste des petits ruminants, Contagious caprine pleuropneumonia, Mange, External and internal parasites, Pneumonia	Peste des Petits Ruminants in Kapoeta East County Contagious Caprine Pleura Pneumonia in Kapoeta South County
Poultry	Newcastle disease, Salmonella, Fowl pox Coccidiosis, External and internal parasites	Newcastle Disease in all counties
Camel	Skin diseases, Respiratory, Trypanosomiasis, External and internal parasites	There was no outbreak in the last 2 years.
Equine	Tetanus, Respiratory, Wounds, External and internal parasites	There was no outbreak in the last 2 years.
Canine	Rabies, Respiratory, Canine distemper, Genital wounds	There was no outbreak in the last 2 years.
Zoonosis	Brucellosis, Tuberculosis, Tapeworm, Hydatid cyst, Rabies	There was no outbreak in the last 2 years.
Pig	Hydatid cyst, Wounds, External and internal parasites, Respiratory	There was no outbreak in the last 2 years.

Source: State MARF.

Animal health issues

- Livestock law and regulation are underdeveloped.
- Trans-boundary disease (Animal disease control system is not sufficiently functioned.)

Market

Type of livestock and livestock product	Market
Cattle	Kapoeta South, East, North and Torit Counties
Sheep and goat	Kapoeta South, East, North and Torit Counties
Poultry	Magwi County
Honey	Magwi and Budi Counties

Source: CAMP survey team. 2013.

Market price

Item	Unit	Price (SSP)		
		Low season		High season
Bull (big)	Head		2,200 - 2,400	
Bull (medium)		Dec-April	1,100 - 2,300	
Milking cow			999 - 999	May-Sept
Heifer			900 - 1,100	
Goat (mature male)	Head		200 - 400	
Goat (mature female)		Dec-April	240 - 250	May-Sept
Sheep (mature male)	Head		300 - 450	
Sheep (mature female)		Dec-April	240 - 350	May-Sept
Pig (male or female)	Head		700 - 1000	May-Sept
Hen	Each	(Data not available)	15 - 40	(Data not available)
Cock			30 - 50	(Data not available)
Hide	1kg	(Data not available)	5 - 5	(Data not available)
Skin	1kg	(Data not available)	5 - 5	(Data not available)
Meat (beef)	1kg	(Data not available)	24 - 30	(Data not available)
Meat (goat)	1kg	(Data not available)	27 - 30	(Data not available)
Meat (mutton)	1kg	(Data not available)	24 - 30	(Data not available)
Yoghurt	600ml	(Data not available)	3 - 3	(Data not available)
Milk (fresh) from the cattle camp	600ml	(Data not available)	2 - 2	(Data not available)
Milk (fresh) milk at market	600ml	(Data not available)	4 - 4	(Data not available)

Source: CAMP survey team. 2013.

* This is not a representative sample.

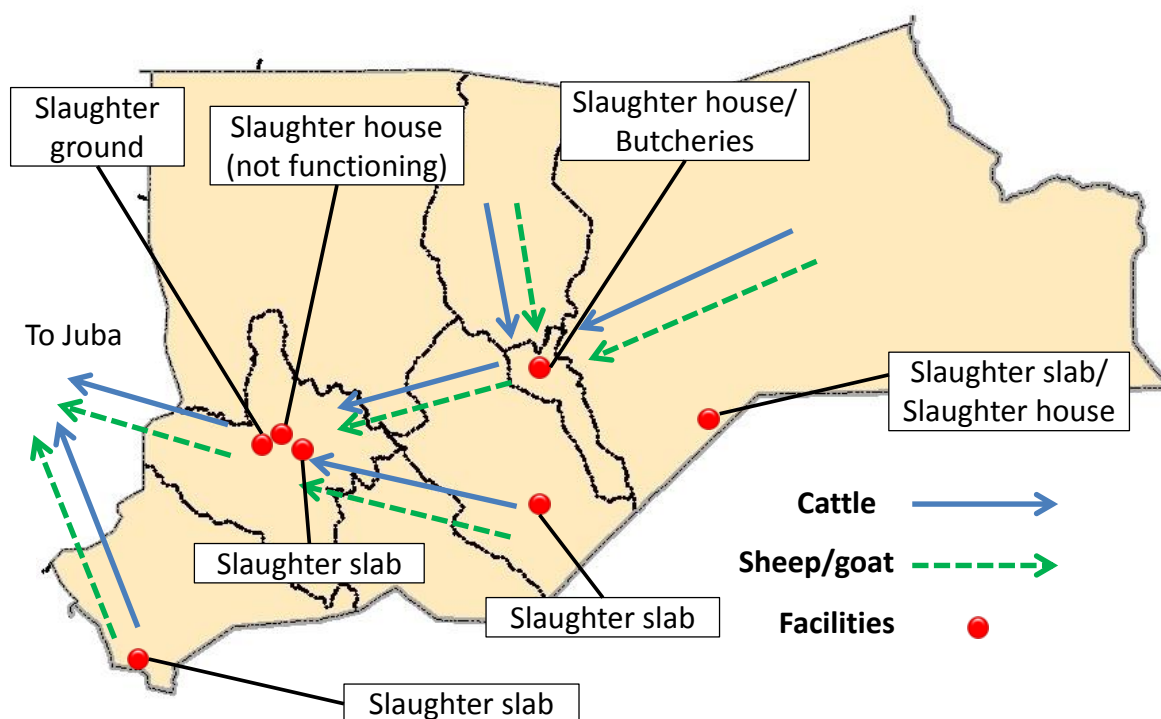
Taxes and charges		
(Taxes and charges paid by traders)		
Type	Cost (SSP)	Frequency
Pass permit at county border (per cow)	3	Every trip
Customs (Nimule) (per cow)	10	Every trip
Market rental fees at livestock market	2	(Information not available)
Inspection fee (per cow)	5	(Information not available)
Inspection fee (per sheep or goat)	1	(Information not available)
Slaughtering fee (per cow)	5	(Information not available)
Slaughtering fee (per sheep or goat)	1	(Information not available)
Tax per hide	2	(Information not available)
Tax per skin	1	(Information not available)

Source: CAMP survey team. 2013.
*This is not a representative sample.

Major livestock species and products by livelihood zone					
Greenbelt		Hills and Mountains		Pastoral	
Type of animal	Breed	Type of Animal	Breed	Type of Animal	Breed
Cattle	Crossbred	Cattle	Local	Cattle	Local
Sheep	Local	Sheep	Local	Sheep	Local
Goat	Local, exotic and crossbred	Goat	Local	Goat	Local
Pig	Exotic	Poultry	Local	Poultry	Local
Poultry	Local, exotic and crossbred			Camel	Exotic
Rabbit	Local			Donkey	Local
Livestock products		Livestock products		Livestock products	
<ul style="list-style-type: none"> • Egg • Meat • Hide and skin • Milk 		<ul style="list-style-type: none"> • Egg • Meat • Hide and skin • Milk 		<ul style="list-style-type: none"> • Egg • Meat • Hide and skin • Milk 	

Source: CAMP survey team. 2013.

Livestock related facilities and trade routes



Source: CAMP survey team. 2013.

Cross-cutting issues
<p>(Land)</p> <ul style="list-style-type: none"> • Land related conflicts in Kidepo valley between Toposa, Didinga, Lotuko, Logir, Lopit and Buya over water sources <p>(Migration)</p> <ul style="list-style-type: none"> • Seasonal natural resources conflict in dry season within the state <p>(Conflict and insecurity)</p> <ul style="list-style-type: none"> • Border conflict between Thrukana in Kapoeta East (along international border with Kenya) <p>(Gender disparities)</p> <ul style="list-style-type: none"> • Only widows have right to own the cattle of late husbands. • Widows have the right to sell unproductive cows and bulls but do not have productive cattle. <p>(Drought and floods)</p> <ul style="list-style-type: none"> • Drought in the north part of the state
Opportunities
<ul style="list-style-type: none"> • Vast unutilised land • High number of livestock • Cross-border trade creates more livestock products sales and profits.
Challenges
<ul style="list-style-type: none"> • Lack of drugs, vaccine and equipment • Inadequate logistical support and budget • Poor road and livestock related infrastructure • Lack of slaughter houses, slabs, accommodation in counties • Lack of training opportunities for the government officers and farmers • Absence of quality assurance/surveillance for drugs, vaccines, equipment and cold chain in counties • Absence of regulation and acts for livestock

