

# United Nations Development Programme

United Nations Development Programme  
South Sudan

Annual Workplan July - December 2011

## Project Title

Crisis and Recovery Mapping and Analysis (CRMA) Project

## UNDAF 1 Outcome(s):

By 2012, the environment for sustainable peace in South Sudan is improved through increased respect for rights and human security, with special attention to individuals and communities directly affected by conflict.

## Expected CP Outcome(s):

**Outcome 6:** Strengthened capacity of national, sub-national, state and local institutions and communities to manage the environment and natural disasters to reduce conflict over natural resources.

## Expected CP Output(s):

**Output 6.2:** Socio-economic crisis and recovery mapping and analysis conducted by state governments to reduce conflict through prioritized planning and spending.

## Implementing Partner

IOM

## Responsible Parties:

UNDP in support of National Bureau of Statistics (NBS)

### Brief Description

The Crisis Recovery Mapping and Analysis (CRMA) project is a planning and information management support, and capacity building initiative that aims to strengthen national and state planning, coordination and monitoring, for more effective governance. This will be done through the development of a common and sustainable information sharing platform between the Government of South Sudan (GOSS) Federal, State and local authorities, and the relevant international development actors. The CRMA is intended to provide an enhanced information base on which to strengthen monitoring, analysis and dialogue on peace and development.

**Output 1:** Capacity Building

**Output 2:** Socio-Economic Risk Mapping and Analysis

**Output 3:** Support to GOSS and UNDP Programming

Programme Period: 2009 – 2012

Programme component: Crisis Prevention & Recovery

Atlas Award ID: 00062049

Start date: 09<sup>th</sup> July 2011

End Date: 31<sup>st</sup> Dec 2011

PAC Meeting Date: 30<sup>th</sup> Nov 2009  
Management Arrangements: DIM

2011 AWP budget: USD 825,570.95

Total resources required: USD 825,570.95

Total allocated resources: USD 825,570.95

Regular

• Other:

○ Donor

Agreed by the Ministry of Finance and Economic Planning:

Agreed by NBS:

Agreed by UNDP:



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I. ANNUAL WORK-PLAN

EXPECTED OUTPUTS <i>And baseline, indicators including annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET <sup>1</sup>			
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount	
<p><b>Output 1</b> <b>Output 1</b> National capacities for info management, analysis and mapping of socio-economic risks enhanced with particular attention to gender concerns.</p> <p>Baseline: 1. Number of NBS state offices managing CRMA information management tools.</p> <p>2. CRMA information management centers established in states.</p> <p>Indicators: 1. Number of NBS state offices managing CRMA information management tools.</p> <p>2 Number of CRMA information management centers established in states</p>	<p><b>1.1 Activity Result</b> Strengthened NBS capacity for data management and analysis including development of adapted mapping and planning support tools, and provision of equipment and training. Technical capacity of NBS GIS team in Juba &amp; Rumbek enhanced in ArcGIS, GPS, Remote sensing and CRMA tools.</p> <p>1.1.1 Action – Establish PEB and conduct first meeting.</p> <p>1.1.2. <b>Action</b> - Make a third assessment of GIS capacity gaps and additional training needs within the NBS GIS teams in Juba and Rumbek.</p> <p>1. 1.3. <b>Action</b> – Training – phased approach 1 training workshop for NBS GIS team and technical personnel from line ministries.</p> <p>1.1.4. <b>Action</b> - Incorporate training into NBS GIS team daily data collection, processing and information management work.</p>			X		UNDP in support of NBS	UNDP/ EU	Travel	24,030.70	
									Workshop costs	28,000.00
								X	Salaries	64,000.00
								X	<b>Rental &amp; Maintenance</b> (common services- premises)	3,480.92
								X	<b>Contribution</b> (office common security)	1,160.31
				X	X	<b>Reimbursement Cost</b> (to UNDP for support services)	1,160.31			
						07% GMS	8,528.26			
						<b>Total</b>	<b>130,360.50</b>			

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<p><b>Targets:</b></p> <p>1. CRMA information management tools and methodology deployed in 10 states and managed by NBS state offices focal points.</p> <p><i>Related CP outcome: 6</i>  <i>Strengthened capacity of national, sub-national, state and local institutions and communities to manage the environment and natural disasters to reduce conflict over natural resources.</i></p>	<p><b>1.2. Strengthened capacity of key national/state/local level actors on risk-sensitive analysis and management (at least one per quarter), and evidence-based development planning including development of adapted mapping and planning support tools.</b></p>							<p>Travel</p> <p>Equipment</p> <p>Salaries</p>	<p>34,438.32</p> <p>40,000.00</p> <p>63,000.00</p>	
	<p>1.2.1. <b>Action</b> –Assess critical capacity development needs for data collection, processing and management in all 10 NBS state offices.</p>			X					<p><b>Rental &amp; Maintenance</b> (common services- premises)</p> <p><b>Contribution</b> (office common security)</p> <p><b>Reimbursement Cost</b> (to UNDP for support services)</p> <p>07%GMS</p>	<p>4,123.15</p> <p>1,374.38</p> <p>1,374.38</p> <p>10,101.72</p>
	<p>1.2.2. <b>Action</b> - Incorporate CRMA methodology to state NBS focal points during joint CRMA/LGRP county level consultations and risk mapping workshops, in collaboration with UNDP SSP IUNV statisticians.</p>			X	X					
	<p>1.2.3. Establish GIS based "data banks" in 10 state NBS offices and provide support to establish state offices as vibrant centres of service &amp; distribution of information to state governmental ministries and institutions, in collaboration with state based UNDP SSP IT specialists.</p>			X	X		UNDP in support of NBS	UNDP/ EU	<p><b>Total</b></p>	<p><b>154,411.95</b></p>
	<p><b>1.3 Activity result</b>  <b>National/international researchers and programme developers and analysts for risk mapping, research and analysis support.</b></p> <p>1.3.1. <b>Action</b> – Recruitment technical GIS/Database consultants.</p>			X				UNDP/ EU	<p>Salaries, Consultancy costs</p> <p><b>Rental &amp; Maintenance</b> (common services- premises)</p>	<p>60,000.00</p> <p>29,439.25</p> <p>2,683.18</p>

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	1.3.2 Consultants to support NBS and state counterpart training				X				Contribution (office common security)	894.39	
									Reimbursement Cost (to UNDP for support services)	894.39	
									07% GMS	6,573.79	
									<b>Total</b>	<b>100,485.00</b>	
	1.4 Activity result Project management			x				UNDP/ EU	Salaries	47,700.93	
	1.4.1. Action – Recruitment of support staff -1 National programme associate, & 1 Admin support associate.								Rental & Maintenance (common services- premises)	1,431.03	
									Contribution (office common security)	477.01	
									Reimbursement Cost (to UNDP for support services)	477.01	
									07% GMS	3,506.02	
									<b>Total</b>	<b>53,592.00</b>	
<b>Output 2</b> Gender and age sensitive socio-economic risk mapping completed in 10 states of Southern Sudan and results incorporated into State and GOSS level development planning. Baseline: <i>Gender and age sensitive state level participatory mapping completed and risks identified in 6 states (State level risk workshops completed in 8 states. County level risk workshops completed in 48 Counties utilizing joint CRMA/LGRP methodology.</i>	<b>2.1 Activity Result</b> <b>Gender and Age sensitive participatory mapping completed in all 10 states and results incorporated into CRMA database tools in collaboration with Gender project. County level mapping completed and results fed into contextual analysis for respective mid-term (3-year) state and county strategic plans in support to CPAP Outcome 1.</b>							UNDP in support of NBS	UNDP/ EU	Travel, Workshop costs Salaries	35,000.00 70,000.00 71,264.36
	2.1.1. Action - Complete county level consultations and risk mapping and data collection activities in remaining 31 counties in collaboration with LGRP.				X	X				Rental & Maintenance (common services- premises)	5,287.93
									Contribution (office common security)	1,762.64	
									Reimbursement Cost (to UNDP for support services)	1,762.64	
									07% GMS	12,955.43	
					X	X			<b>Total</b>	<b>198,033.00</b>	
	Indicators: 1 Number of states covered by CRMA socio economic mapping.										

<p>2. Number of states endorsing and utilizing gender &amp; age sensitive social threat/risk mapping for strategic planning and decision making.</p> <p>Targets:</p> <p>1. Ten (10) states of southern Sudan covered by CRMA socio economic mapping and outcomes utilized in analysis for planning and decision making.</p> <p>2. CRMA database, with disaster risk information, utilized in development of 3-year strategic plans in 10 states.</p> <p>3. Outcome of risk mapping utilized incorporated into in 3 year strategic plans in 79 counties.</p> <p>Related CP Outcome: 6 Strengthened capacities of national, sub-national, state and local institutions and communities to manage the environment and natural disasters to reduce conflict over natural resources.</p>	<p>2.1.3 Action - Recruitment of 1 IUNV risk mapping officer and 1 National risk mapping officer</p>							
	<p><b>2.2. Activity result</b> <b>Common information sharing and management platform established and functioning under NBS management.</b></p> <p>2.2.1 Action – Facilitate monthly Southern Sudan Information Management Working Group (IMWG) meetings to establish standards for information collection, processing management and sharing.</p> <p>2.2.2. Action – Provide daily technical support to the IMWG secretariat: facilitating data collection and regular data update Atlas updates.</p>			X	X		UNDP/ EU	<p>Meetings 3950.16</p> <p>Equipment 3000.00</p> <p>Training costs 1000.00</p> <p><b>Rental &amp; Maintenance</b> (common services- premises) 238.50</p> <p><b>Contribution</b> (office common security) 79.50</p> <p><b>Reimbursement Cost</b> (to UNDP for support services) 79.50</p> <p>07% GMS 584.34</p> <p><b>Total</b> <b>8,932.00</b></p>
	<p><b>2.3 Activity result Multi-stakeholder analysis conducted in 10 Southern Sudan States and results incorporated into mid-term strategic state and county plans.</b></p> <p>2.3.1. Action – Facilitation of sector al gender inclusive data validation, analysis and prioritization in support of state strategic planning (10 states).</p> <p>2.3.2. Action – Production of updated analysis maps and tools for planning and decision making support for 79 counties.</p>			X	X	UNDP in support of NBS	UNDP/ EU	<p>Travel 20,819.32</p> <p>Workshop costs 8,000.00</p> <p><b>Rental &amp; Maintenance</b> (common services- premises) 864.58</p> <p><b>Contribution</b> (office common security) 288.19</p> <p><b>Reimbursement Cost</b> (to UNDP for support services) 288.19</p>
				X	X			

	2.3.3. <b>Action</b> - Provide CRMA tools and methodology to state governments in support of recurrence cycle of state level information collection and analysis by respective state governments and planning counterparts in collaboration with LGRP & Support to State project.			X	X			07% GMS	2,118.22
								<b>Total</b>	<b>32,378.50</b>
	2.4. <b>Activity Result Data collection, validation and analysis methodology developed with key stakeholders. Related analysis integrated into planning and programming at both state and GOSS level.</b>							Travel	2,931.48
	2.4.1: <b>Action</b> – Establish state support through provision of training on tools and methodologies to UNDP State statisticians; planning & IT officers in 10 states.			X	X	UNDP in support of NBS	UNDP/ EU	Workshop costs	8,000.00
	2.4.2. <b>Action</b> - Conduct Juba level workshop in collaboration with Local Government Board; LGRP, SSP and NBS to sensitize & attract GOSS to utilize data produced at county level for planning and prioritization of development programmes.			X				<b>Rental &amp; Maintenance</b> (common services- premises)	327.94
								<b>Contribution</b> (office common security)	109.31
								<b>Reimbursement Cost</b> (to UNDP for support services)	109.31
								07% GMS	803.46
								<b>Total</b>	<b>12,281.50</b>
<b>Output 3</b> Support to GOSS and UNDP for crisis and gender sensitive recovery and development programming enhanced and sustainably supported.	3.1. <b>Activity Result</b> <b>CRMA support utilized in state and GOSS planning and programme development, including support to GOSS BSWGs and State Planning Units.</b>			X		UNDP in support of NBS	UNDP/ EU	Equipment,	12,000.00
Baseline:	3.1.1. <b>Action</b> – Establish methodology for adoption of standards for data collection, sector by sector, through SS IMWG.			X				Salaries,	70,000.00
1. <i>Integrated GOSS planning in place</i>								Training costs	17,376.94
								<b>Rental &amp; Maintenance</b> (common services- premises)	2,981.31

<p>with 10 GOSS Budget Sector Working Groups.</p> <p>1. Weak information &amp; planning flow between GOSS BSWGs, state sectors and Counties.</p> <p>2. Limited gender and crisis sensitivity in planning processes.</p> <p>Indicators:</p> <p>1. Number of projects/programmes utilizing CRMA information outputs for programming and programme development.</p> <p>2. Number of sectors at GOSS level utilizing CRM information outputs for gender and risk sensitive planning.</p> <p>Targets:</p> <p>1. Three (3) UNDP projects utilizing CRMA information outputs in programme development.</p> <p>2. 3 sectors at GOSS level sensitize and utilizing CRM information outputs for gender and risk sensitive planning</p> <p>Related CP outcomes: 6 Strengthened capacity of national, sub-national, state and local institutions and communities to manage the environment and natural disasters to reduce conflict over natural resources.</p>	<p>3.1.2. <b>Action</b> – Facilitate the establishment of a service centre within the NBS to provide technical support and products to partners &amp; clients.</p>			X				<p><b>Contribution</b> (office common security)</p>	993.77
	<p>3.1.3 <b>Action</b> – Facilitate linkage of MoFEP Aiid Coordination to the NBS IMWG database.</p>			X				<p><b>Reimbursement Cost</b> (to UNDP for support services)</p>	993.77
	<p>3.1.4. Recruitment of full time capacity development &amp; policy officer to facilitate roll out strategy for capacity development in 10 states.</p>							<p>07% GMS</p>	7,304.21
								<p><b>Total</b></p>	<b>111,650.00</b>
	<p><b>3.2. Systematization of experiences from field-level interventions and CRMA information as basis for support to CSAC, the Ministry of Peace and various stabilization, peace-building and development processes.</b></p>						<p>UNDP/ EU</p>	<p>Equipment</p>	9,869.17
	<p>3.2.1. Action –3.3.1. Action – Publication &amp; distribution of State &amp; County level consultation reports, analyses, revised state atlas level data as a facilitation tool</p>			X				<p>Consultancy costs</p>	11,000.00
								<p><b>Rental &amp; Maintenance</b> (common services- premises)</p>	626.07
								<p><b>Contribution</b> (office common security)</p>	208.69
								<p><b>Reimbursement Cost</b> (to UNDP for support services)</p>	208.69

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	for coordination and standardisation of government approach to knowledge management.							07% GMS	1,533.88
	3.2.2. <b>Action</b> - Facilitate spatial and contextual analysis of respective sector data sets and provide inputs to evidence based crisis sensitive planning and programming for CSCA, LGRP and SSP; among key agencies and funds.							<u>Total</u>	<u>23,446.50</u>
<b>TOTAL</b>								<b>Total</b>	<b>825,570.95</b>

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## United Nations Development Programme

### II. STRATEGY FOR CRMA SOUTH SUDAN

#### II.1. Implementation Strategy

Following the model of the CRMA developed in Sudan, CRMA South Sudan offers planning and information management support, and capacity development, which aims to strengthen national and state planning, coordination and monitoring for more effective governance as follows:

- Phase I, focused on data completion for full state and county level crisis and risk mapping in 6 states namely, Eastern Equatoria, Warrap, Western Bahr el Ghazal, Northern Bahr El Ghazal, Unity and Jonglei. It is also important to note that CRMA cycles at the state level have been completed in the remaining 4 states, where county level mapping is pending.
- With independence of South Sudan, CRMA aims to complete its Crisis Risk Mapping cycle at county level across all 10 states by end of 2011 Annual Workplan (July –December), thus focusing on completing the CRMA cycles at county level for these 4 states involving state authorities and local government authorities, and the NBS state level offices; in collaboration with UNDP LGRP and SSP projects. This will facilitate a smooth handover of its analysis and programming and capacity development activities to GoSS structures by end of 2012.
- Following the CRM cycle and based on lessons learned from 2010 pilot work in Eastern Equatoria State, CRMA and partners will complete data validation processes for all states and develop preliminary analyses for incorporation in the Budget Sector Working Group (BSWG) and strategic planning processes at state and county levels, and based on consultative and participatory methodologies, these processes will closely involve State and county authorities, local civil society, and the international community. CRMA will then make a dedicated effort to enhance the capacity of state and county authorities to participate actively in the data collection, validation and analysis processes with a continuous training throughout the cycle.
- The IMWG for South Sudan is chaired by the NBS and will continue to receive direct technical support from CRMA to ensure capacity is in place to continue its operations in a sustainable manner beyond 2012.
- Working with the established BSWG within the state-level governments will ensure alignment of goals with State Strategic Plans. CRMA will also enhance the capacity of state and county authorities to participate in the data collection and validation process and will build the capacity of states to establish basic Information Technology capabilities through the provision of basic sets of hardware and software licenses and training of key personnel.
- CRMA tools and methodology are designed to strengthen efficiency of UNDP-supported planning processes at all levels and in ensuring synergies and complementarities of UNDP SSP, LGRP, Support to Economic Planning project, and the Community Security and Arms Control (CSAC) project. In particular, SSP is designed to help the States formulate their strategic plans, annual plans and budgets using clearly defined methodologies and processes that are consistent with GoSS approved planning frameworks and processes. CRMA tools will add value to locally generated sets of information and will provide quality information to support these planning processes.
- CRMA tools and methodologies will support partners in presenting analysis to donors and mobilizing resources for programming, including support to information management and collection depth and breadth available to partners when providing analysis in support of funding requests. Facilitating

information sharing, collection of data at state level and visual presentation of data on maps by CRMA's team will provide impact and support to analysis presented to donors.

- Finally, the information generated through the CRMA will feed into planning and analytical processes including state and county planning process and as input to discussions and forums on peace and development, including, for instance, the local platforms for peace being considered by the South Sudan Peace Commission. It is expected that a Peace and Development Advisor from UNDP will support this important considerations and processes.
- Working with all partners and through the IMWG, the CRMA will roll out the *Who-Does-What-Where (4Ws)* information management tool. This tool will allow partners to track ongoing programs and activities by international and national partners. Information from the 4Ws will be combined with needs assessments and strategic priority identification to support integration of programming based on common priorities of Government, UN agencies, donors and NGOs and to avoid duplication.
- Working with the IMWG, NBS and state partners will produce **ArcReader Libraries** containing all available Geographic Information Systems (GIS) on each state for distribution.
- Working closely with NBS, CRMA will produce specific **GIS Project Maps** at the request of the IMWG and partners to support specific analytic processes and as an analytic output from participatory analysis and planning meetings.

## II.2. Capacity Development

The main objective of this project is therefore to build the capacity of key actors working in South Sudan within the recovery and development fields to identify needs and priorities and to better analyze causal relationship, better plan and design interventions to address them. The CRMA is dedicated to the building of capacity on information management within GoSS at two levels:

1. Building capacity of the NBS in processing, packaging and dissemination of geo-referenced data. The established information sharing platform and the digitised tools and methodology to visualise, correlate, and analyse the information to inform and guide policies and strategies of Budget Sector Working Groups (BSGW) under the supervision of the ministry of Finance and Planning (MoFEP).
2. Building the capacity of the 10 State governments of the Republic of South Sudan through NBS state offices in the collection, processing and analysis of socio-economic data required for state planning, through direct technical support and capacity building to staff in state planning departments.

Since the NBS has the overall coordination mandate and technical capacity to host the CRMA project, it is the major client for CRMA's capacity development on data collection, processing and geo-referenced visualization. The Master Plan for Statistics Development in South Sudan (2008) spells out the kind of statistics that the NBS is mandated to collect, store, compile and disseminate. The data is handled by the statistical unit and managed using the standard relational database management system (RDBMS). In particular, the NBS is mandated to manage statistics on Censuses (Population, Business, Agricultural); Economic statistics (Annual economic survey, Household budget survey, Consumer Price Index), Social and demographic statistics (Health survey, Community survey, Education survey). At the state level, the NBS offices works in close collaboration with the CRMA project in the realization of project outputs. These offices have a direct link with the State Ministries of Finance and Economic Planning being the focal ministry responsible for the coordination of state strategic and annual planning and budgeting process. These offices are responsible for the coordination of information



generation and sharing at the state level of all information generated through partners using CRMA tools and methodologies.

Through the IMWG in Juba under the chairmanship of NBS, CRMA will continue to support the common information management and sharing platform. The IMWG seeks to strengthen coordination of information in South Sudan and assure a continuous feed-back loop to all actors such as state and local authorities, UN agencies, NGOs, Donors, etc. Working with all partners and through the Resident Coordinator Office, the CRMA will roll out the 4Ws information management tool. This will enable partners to track ongoing programs and activities by international and national partners. It is expected that by June 2012, the RCO and its government counterparts will be able to manage the 4Ws and network of users independently.

CRMA will continue to offer support in revising the NBS GIS systems and providing basic sets of hardware/software licenses and the training of key personnel on GIS mapping including development of adapted mapping and planning support tools. With an intensive focus on capacity development over the next 12 months it is expected that the NBS will be able to take full charge of all existing activities, including the coordination of the IMWG and quarterly publishing of ArcReader packages and printed atlases containing state-by-state information and assessments.

### **II.3. Support to GOSS and UNDP Programming**

CRMA tools and methodology are designed to strengthen the efficiency of the UNDP-supported planning processes at county, state and GOSS levels and in this respect complement the UNDP Support to the States Project (SSP), Support to Economic Planning project, and the Local Government Recovery project. CRMA will collaborate closely with the state Ministries of Finance and Economic Planning through the State Planning and Development Committees (SPDCs) and State Sector Budget Working Groups (SSBWGs) in feeding socio-economic information generated through the CRMA model to enhance more evidence-based planning and programming at both the county and state levels. The SSP in particular is designed to help these state counterparts formulate their strategic plans, annual plans and budgets, using clearly defined methodologies and processes that are consistent with GOSS approved planning frameworks and processes. Given the strength of UNDPs existing projects and their presence at state level, it is envisaged that CRMA will be able to hand over its analysis and programming support and capacity development activities once the Crisis and Risk Mapping cycles and concurrent preliminary analysis work has been completed for all ten states.

The project methodology therefore seeks to support these key actors, both at local, state and national level as well as within the international community, in their own processes of data collection and validation, providing them with information management tools to analyse this information and define the appropriate, prioritized responses. This will be done by involving these actors directly in the process of data collection/validation and analysis from the start, working with them in the development of the standard methodology, and strengthening the NBS' ability at state level to provide information resources for strategic planning purposes, strengthening their link to planning structures, UN agencies and NGOs on the ground.

### **II.4. Cross-Cutting Principles: Gender and Youth Responsiveness**

The CRMA project has made concerted efforts to ensure that there is a basic level of gender and youth awareness and sensitivity in the project, the way the staffs interacts internally and externally, through its activities and also in relation to its overall objectives. The CRMA approach is flexible and responsive and is actively seeking ways to better structure methodologies and techniques to bring gender and youth issues on board in a systematic way. The CRMA methodology has been developed to actively consider gender and age sensitivity and attempts to achieve it in the following ways: a) utilize participatory methods to capture socio-economic risks and security threats in a gender and age sensitive manner; b) enable this data to be gender and age disaggregated, to show how different threats and risks affect women, children and other groups, within

different contexts in Sudan; c) develop gender and age sensitive indicators (quantitative, qualitative and impact related) for planning and programming, and lastly; d) promote gender awareness through internal organizational practices and external activities and interactions with key partners and stakeholders at local, state and national level.

#### **II.5. CRMA for M&E and Impact Assessments**

The information sharing tools developed by CRMA have also been designed with a view to improve the way in which M&E is carried out, making it part and parcel of any programme design. Each element in a design hierarchy has a spatial component. The goal is to be achieved in a specific location or locations. So are the outcomes, outputs and activities. Through annual roll-out of mapping workshops and periodic monitoring of MEIs, using the CRMA toolkit, change and impact can be analyzed both temporally and geospatially. CRMA is currently exploring various avenues for support to partners' M&E frameworks. In particular, CRMA has offered its support to the UNDAF M&E technical working group to support joint monitoring efforts, provide a platform for guidance and technical support on M&E related matters within the UN system, and ensure proper coordination of data collection exercises. More specifically, the M&E TWG will provide support to the joint UNDAF monitoring mechanism, which has been agreed by the UN Country Team and its national partners, including support to the various UNDAF outcome lead agencies and UNDAF technical working groups.

#### **II.6. Coordination & Partnership Strategy**

Building on current programmes in the target states and their networks of partners, the project will expand existing partnerships and develop new ones, specific to the CRMA process. This will entail support to state level strategic planning and programming through cooperation with the RC's office, UN Agencies and INGOs which are supporting networks of national NGOs.

As part of the overall strategy of CRMA roll-out in South Sudan, the following institutions at both GoSS and state level will be part and parcel of its partnership and implementation modalities.

#### **National Bureau of Statistics (NBS)**

The NBS has overall coordination mandate and technical capacity to host CRMA project. It will be the target for CRMA's capacity building on the processing and display of geo-referenced data. The Master plan for Statistics Development in South Sudan (2008) spells out the kinds of statistic that the NBS is mandated to collect, store, compile and disseminate. The data is handled by the statistical unit and managed using the standard relational database management system (RDBMS). The NBS is mandated to manage statistics on Censuses (Population, Business, Agricultural); Economic statistics (Annual economic survey, Household budget survey, Consumer Price Index), Social and demographic statistics (Health survey, Community survey, Education survey). At the state level, the NBS offices will work in close collaboration with the CRMA project in the realization of project outputs. These offices will have a direct link with the State Ministries of Finance and Economic Planning being the focal ministry responsible for the coordination of state strategic and annual planning and budgeting process. These offices will be responsible for the coordination of information generation and sharing at the state level of all information generated through partners using CRMA tools and methodologies. CRMA will build the material and human capacity of the NBS in the production and manipulation of geo-spatial info sets. NBS will be the identifier of this, and the coordinator of the compilation and manipulation of geo-spatial info sets. technical assistance, training and equipment to support the NBS's capacity in this function. The NBS will therefore assume the natural ownership of the project as demonstrated in the following areas:

- The CRMA will be located within the NBS office premises, and its physical assets and human resources will be co-located with those of the Commission.

- The CRMA will carry out capacity building of the NBS as its first major output in its roll-out process to enhance its ownership of the project.
- To further enhance national capacity and ownership, CRMA will carry out a gradual building up of national human resources while phasing out international technical staff. (As long as the project remains under the DEX implementation modality, however, project staff will be UNDP staff working with and through the NBS)
- The NBS will directly engage in the management of the project implementation through its participation in the project Executive Board and Technical Advisory Committee.
- The NBS will also retain ownership and leadership through regular interactions/engagements in the development of CRMA strategy, work plans and activity outputs.
- NBS will chair and coordinate activities of the Information Management Working Group (IMWG) forum.

#### **The GoSS Ministry of Finance and Economic Planning (MoFEP)**

MOFEP has the coordination mandate in terms of support to planning processes across three levels of government. As recommended by the Technical Committee report, CRMA Information management tools and analysis generated should provide support to GoSS policy formulation and planning. CRMA implementation shall take place in coordination with the MoFEP in order to support the 10 Budget Sector Working Groups at GOSS level in feeding socio-economic information to enhance more evidence based planning and programming.

#### **State Ministries of Finance and Economic Planning**

As recommended by the Technical Committee Report of 26 January 2009, States (and Counties) should remain the key focus of CRMA project delivery, through information collection and mapping carried out on a state by state basis. CRMA information and planning tools should therefore directly feed State and County strategic planning processes, which in turn support national plans. At the GOSS level and state levels, all ministries have directorates of planning. These are the institutions that will require information management support from CRMA. CRMA should provide information management support to the counties through the Local Government Board (LGB).

CRMA will collaborate closely with the state Ministries of Finance and Economic Planning through the State Planning and Development Committees (SPDCs) and State Sector Budget Working Groups (SSBWGs) in feeding socio-economic information generated through the CRMA model to enhance more evidence based planning and programming at both the county and state levels.

In its direct partnership with the State governments, the CRMA will support planning and decision making through the process of collection and analysis of GIS socio economic threats and risks inputs

#### **Other UNDP and Donor Supported projects**

The CRMA will collaborate closely with other UNDP funded projects, such as the Support to the States Project (SSP) and the Local Government Recovery Programme (LGRP) that are supporting state and county capacity development for strategic and annual planning and budgeting. The Community Security and Arms Control Project, DDR, other recovery and livelihoods and Rule of Law related projects and other development partners will also forge a closer partnership with the CRMA to ensure synergy and complementarities in project implementation activities. In addition, the EU's Peace and Stability Quick Impact Fund for Southern Sudan (implemented by IOM) will also closely collaborate with the CRMA.

The project methodology therefore seeks to support these key actors, both at local, state and national level as well as within the international community, in their own processes of data collection and validation, providing them with information management tools to analyze this information and define the appropriate, prioritized, responses. This will be done by involving these actors directly in the process of data collection/verification and analysis from the start, working with them in the development of the standard methodology, and setting up

two counterpart focal points in each State, one in the State government –usually within the lead Ministry for planning- and one in support of the coordination work of the RC office, providing services for both the UN agencies and the NGOs. The support to the focal points will include basic equipment (computers, printer, GPS markers/phones and related supplies) together with the required software and the related training. These focal points will then be able to operate the full State database, and provide the required lay-outs to the various actors for their work.

#### **Lessons Learned from phase I implementation in Northern Sudan and start-up of South Sudan**

In February and March 2010, CRMA Sudan underwent an external evaluation by DfID and BCPR to look at the project's design, processes and achievements. It was agreed that the design of Phase II would build on the outcomes of this evaluation. In response to the main review question (Has the CRMA contributed to an improved evidence-base on conflict and risk issues among its clients?) the report concluded the following:

"The short answer [...] is that the CRMA has made remarkable progress towards creating the capability for impact and has significant potential to do so. The CRMA project is well-run, cost- efficient and cost-effective, is worth investment, and holds the potential to improve how the UN system operates in the Sudan – as well as elsewhere. For that very reason it is worth emphasizing that for now focus must be on making the system work properly in the Sudan to ensure that there is, in fact, an established system to replicate.<sup>7,2</sup>

In particular, the review made the following recommendations to UNDP and project donors:

- 1. Continue funding and ensure return on investment** The CRMA had its funding cut short by one year due to issues of exchange rate and the security situation in Sudan and therefore is not sustainable at present. However, given substantial investment in the project, CRMA's impact within a 2-year period and importance as an instrument for both the Government of Sudan and international agencies, it is strongly recommended that the project continues to receive funding. Funding should be adjusted to cover a three-year Phase II, followed by a two-year Phase III.
- 2. Be more explicit about the political implications of the CRMA** Donors and UNDP should be explicit about the political implications of the CRMA as well as the implications of building the capacity of certain state/non-state actors over others. The CRMA is presented primarily as a technical instrument that will enhance the work of the State Governments as well as international agencies. However, depending on the accuracy of the data, it might as well be used to target specific groups as tension builds closer to the referendum. This is particularly the case in the Three Protocol Areas and Southern Sudan.
- 3. Actively use "quality vetted" data from CRMA to inform funding allocations** There is significant scope for creating an interface between the CRMA and donor agencies that is focused on using good quality CRMA data to inform donor allocations of funding. The use of a stronger evidence-base for donor allocations of funding in Sudan would help set the stage for greater impact on the ground.
- 4. Actively promote data sharing and evidence-based planning** The CRMA provides an important platform for implementing agencies to share data and engage in evidence-based planning. Data quality weaknesses in the CRMA can in part be tackled if data sharing becomes a contractual requirement for agencies receiving donor funding. Once integrated into the CRMA system, agencies will have better access to tools for evidence-based planning. Donors should therefore add data sharing requirements to their contracts with implementing agencies in Sudan.

- 5. Actively promote Area Based Development approaches in the Sudan** The CRMA, with its geo-referenced

<sup>2</sup> DfID/BCPR: CRMA Project Review Phase 1, 26 March 2010; p23.

data lends itself particularly well to informing area-based development approaches. However, there is currently very little area-based development happening in Sudan – with coordination among agencies in a given area more focused on information sharing than integrated planning. In order to enhance the potential positive impact of development efforts on conflict, donors should consider promoting area-based development where relevant in the country.

**6. Adjust expectations for sustainability** The current two-year timeframe set for a sustainable CRMA is unrealistic. A more appropriate timeframe would be a three-year Phase II focused on roll-out and sustainability, followed by a two-year Phase III that involves accompanying key CRMA clients.

Following this evaluation, a two-year Phase II has been developed for CRMA Phase II in Southern Sudan, during which it is envisaged that much of the support for analysis and conflict-sensitive strategic planning can be offered through UNDP's Support to States, Support to Economic Planning and Local Government Recovery projects which have already established their support structures at state level.

With the basic information collection, and the initial state-level risk mapping completed for 10 states and the full CRM cycle completed for 6 states (East Equatoria, Warrap, Northern Bahr El Ghazal, Western Bahr El Ghazal, Unity and Jonglei by July 2011, efforts are still needed to complete the CRM cycle for the remaining 4 states. Roll out of Phase II in Southern Sudan will benefit from detailed methodology already developed in the north (CRMA Sudan) for basic information collection and consolidation, risk mapping, state-level situation analysis, and support to state strategic planning, and therefore should be both quicker and less resource-demanding.

Strategies and activities for CRMA Phase II have been designed based on the outputs and lessons learned from Phase I (the completion of the full cycle of information collection, risk mapping, situation analysis and strategic planning in northern & 2 pilot southern Sudan states). Lessons from a 2009 capacity assessments of information flows, knowledge management and strategic planning processes in northern Sudan and 2010 pilot results from Eastern Equatoria state also have underlined the priorities for an information & knowledge management state capacity enhancement plan for CRMA to include:

- Senior engagement and commitment to be obtained from all government departments for the KM plan;
- Competency and skills development in support of strategic planning;
- Development of a shared understanding of departmental functions, dependencies and the role technology can play as an enabler;
- Development of leadership in technology and knowledge management to assure and sustain change initiatives;
- Development of state and locality-level data collection systems, as well as state information centre capabilities;
- Documentation and capture of knowledge developments at the locality and state levels;
- Development of a sustainable IT platform and appropriate tools.
- A key upcoming challenge will be the development of shared sector-by-sector standards for information collection, compilation and sharing, following the IASC operational guidelines for information management at a global level. A web-based resource centre for recovery and development actors, similar to the Sudan Information Gateway that has been set up by OCHA for the humanitarian actors, will also be set up and linked to the information-sharing network. Furthermore, the information and knowledge-sharing networks need to be extended to include international donors, enabling them to better target, as well as monitor and evaluate the impact of their support. CRMA will also continue to offer technical assistance upon request from the IMWG members in carrying out their specific risk mapping and evidence-based, conflict-sensitive planning.
- The lack of accurate administrative and political boundaries of Southern Sudan also represents a key

### III. MANAGEMENT ARRANGEMENTS

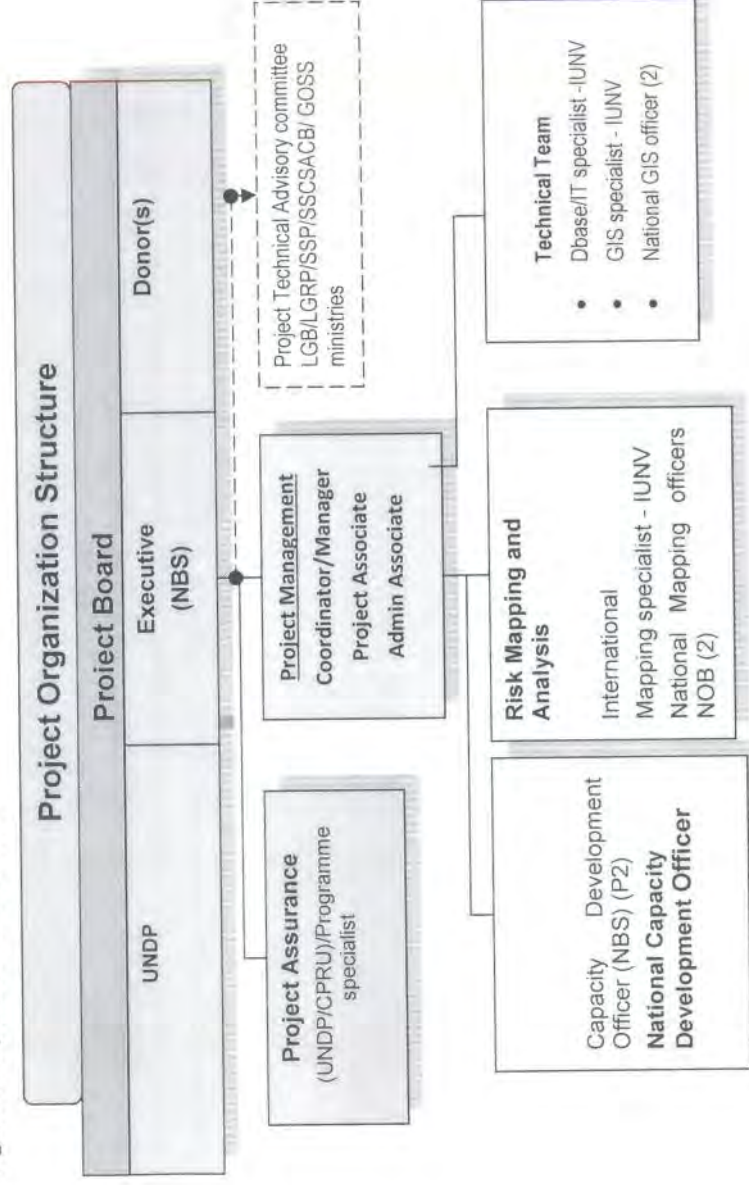
#### Management and technical support

CRMA Phase II will apply the same modalities as for phase I. The Project will be implemented by UNDP South Sudan through the DIM modality. Overall responsibility for the project shall rest with the UNDP Country Director, with direct oversight responsibility by the Head of the Crisis Prevention and Recovery Unit, while project delivery responsibility shall rest with the Project Coordinator/Manager. The project assurance and supervision function will rest with the designated UNDP CO programme officer.

The overall structure of this Project emphasizes and ensures national ownership. The project will be managed by UNDP in close collaboration with the designated counterparts in GOSS, the National Bureau of Statistics (NBS). IOM will be the implementing partner responsible for execution of the project's administrative and operational components. The Project Board will be established, chaired by NBS and will meet on a quarterly basis. The Project Board will supervise the overall management, monitoring and evaluation of the Project.

The planning and implementation of CRMA activities will be undertaken in close collaboration with UNDP Support to State Project (SSP); Local Government Recovery Project (LGRP); Community Security & Arms Control Project (CSAC), and other key national counterparts.

Figure II: Operational Structure



#### Project Executive Board

A Project Executive Board (PEB) will supervise the overall management, monitoring and evaluation of the Project. The Project Board will manage the strategic direction of the project and monitor progress, and will guarantee the GOSS ownership of the project. The PEB will be composed of one representative from each of the following: the NBS, UNDP, and donor representative(s). The PEB will convene on a quarterly basis (every three months). The Project Executive Board (PEB) will guarantee the national ownership of the project and will



bear responsibility for making executive management decisions, and will supervise and guide the Project Manager. The Project Board will be responsible for approving budgets, work plans, progress reports, and financial reports.

The Project Executive Board will be comprised of:

- One representative of the National Bureau of Statistics (NBS), who will also be the executive.
- One Donor representative;
- One representative of UNDP.

### **Implementing Partners**

IOM is the implementing partner responsible for administrative and operational support. All project activities will be undertaken in close cooperation with UNDPs programming units to facilitate a smooth transition of further capacity development efforts by December 2012.

### **Coordination Mechanism**

The Project Board, as established for Phase I, chaired by the NBS, will continue as coordinating body for the project. The project manager will report to this Board, with quality assurance tasks delegated to the corresponding Program Officer of the CPR Unit. The Board will be convened periodically to approve and monitor project results.

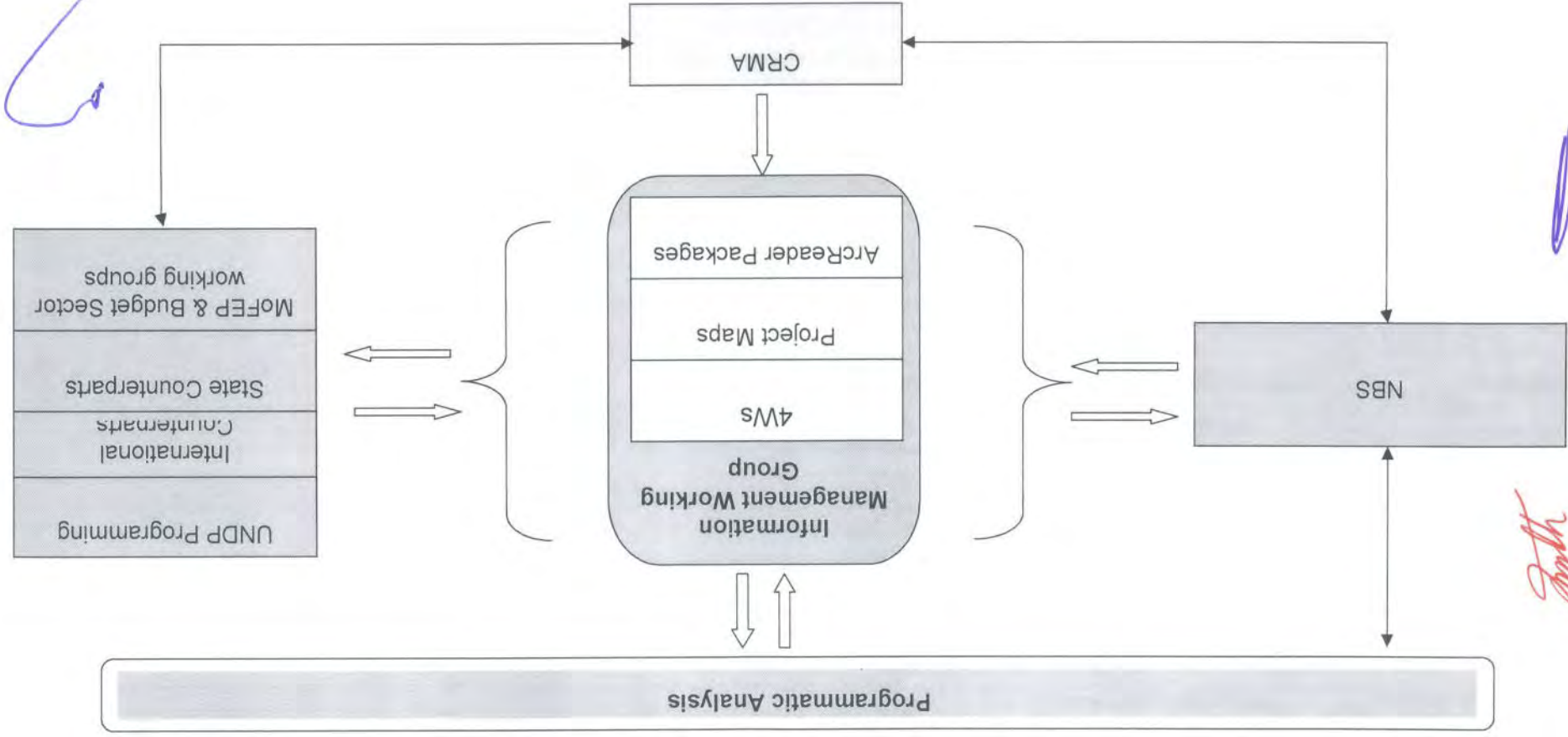
### **Communication and Visibility Strategy**

The CRMA visibility will be implemented in line with the UNDP communication strategy taking into account results of the CRMA achievements. Communication of the results of the CRMA and EU partnership will be achieved through several means:

- The project will have its own page on the UNDP website, crediting the EU as the donor.
- Stories will be published on the UNDP website once the project is achieving some of its key outcomes; these can be cross-posted to the UNDP Global website and supplied to the EU website also.
- Success stories from the project will be supplied to UNDP's global practice network of development practitioners via our online networks
- The project will feature in our UNDP South Sudan monthly newsletter that has a wide distribution both to key actors in South Sudan (including Government) and with UNDP's global partners.
- Branding of the EU logo and the tagline 'This project is funded by the European Union' will be featured on the products produced by CRMA within the implementation period, which will include the IMWG cds, any public reports resulting from the county consultation workshops and any other relevant publications.
- Upon completion of the NBS GIS and information unit construction a plaque will be assigned in line with the EC-UN joint visibility guidelines.
- Monthly reports from UNDP's Business Management Unit are distributed to the EU and to all counterparts in Government.
- The UNDP communications department will coordinate with the EU on publication content in accordance with the joint visibility guidelines.



Figure 2: CRMA Partnership Structure



## United Nations Development Programme

### IV. MONITORING FRAMEWORK AND EVALUATION

#### Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- Reports will form the basis for assessing and steering performance of the project. The Project manager will submit to the Project Executive Board quarterly progress reports (QPRs) and Annual Reports – both the Quarterly and Annual Reports will include financial and narrative parts. Reports will be produced as per UNDP's Results-based management (RBM) project-cycle directives, within 1 month of the reporting trimester/year. All reports will be circulated among partners and stakeholders as appropriate.
- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- A project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

#### Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Project Review.** Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made. The project will be subject to a mid-term review mission by the Government, UNDP and EU, and end of project internal evaluation to take stock of overall progress/outputs, identify lessons learned and make recommendations for the next phase of project. These will be guided by project issues and risk logs and the following: *(Annex 1) – Annual Work Plan and Budget Sheet and (Annex 2) – Annual Work Plan Monitoring Tool.*
- A final report will be assembled on the basis of the Final Review Report template currently adopted by UNDP globally. Delivered within 3 months of project closure, the final report will focus on the extent to which progress has been made towards production of deliverables required to generate output and identification of project issues and their solutions. It will also document lessons learned. Any post review

or evaluation of the project will be discussed in the report. Appropriate annexes as cited above will be included.

## V. LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) Assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document".

## VI. QUALITY MANAGEMENT FOR PROJECT ACTIVITY RESULTS

(FOR JULY- DECEMBER 2011 WORKPLAN)

<b>OUTPUT 1: National capacities for info management, analysis and mapping of socio-economic risks enhanced with particular attention to gender concerns.</b>		Start Date: 09 July 2011	End Date: 31st December 2011
<b>Activity Result 1.</b> (Atlas Activity ID)	NBS state office capacity in information management strengthened through establishment of management units, and begin collection & management of data & provision of liaison support to 10 state governments.		
<b>Purpose</b>	Facilitating NBS information management support to states governments.		
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Assess critical capacity development needs for data collection, processing and management in all 10 NBS state offices.</li> <li>2. Incorporate CRMA methodology training to state focal points during community mapping activities.</li> </ol>		

3. Establish a data bank in all state ministry of Finance & Planning with a backup at state NBS state offices and provide training for designated data managers.		<b>Date of Assessment</b>
<b>Quality Criteria</b>	<b>Quality method</b>	From 09 July 2011 on continuous basis.
<ul style="list-style-type: none"> <li>Quality will be measured through the regularity of CRMA state visits to engage with NBS and state partners.</li> </ul>	Direct engagement and feedback processes established with NBS state focal points as well as with designated data managers in state ministry of finance.	Start Date: 09 July 2011 End Date: 31st December 2011
<b>Activity Result 2 (Atlas Activity ID)</b>	<i>Technical capacity of NBS GIS team enhanced</i>	
<b>Purpose</b>	<i>Support the NBS with technical GIS capacity development and the operational facilitation / management of a common information platform.</i>	
<b>Description</b>	<b>Planned actions to produce the activity result.</b>	
	<ol style="list-style-type: none"> <li>Make a third assessment of GIS capacity gaps and additional training needs within the NBS GIS team in Juba.</li> <li>Training – phased approach (2 training workshops for NBS GIS team and technical personnel from line ministries.</li> <li>Incorporate training into NBS GIS team daily data collection, processing and information management work.</li> </ol>	Start Date: 09 July 2011 End Date: 31st December 2011
<b>Quality Criteria</b>	<b>Quality Method</b>	
<ul style="list-style-type: none"> <li>Quality will be measured through ability of CRMA to revise NBS GIS systems to adopt and confidently utilize adapted mapping and planning support tools as well as take a lead in facilitating information management hub for Southern Sudan.</li> </ul>	Direct engagement and feedback processes established with NBS GIS counterpart as well as other GIS partners. CRMA evaluation reporting tools to donors and GOSS counterparts will also be utilized.	
<b>Training Workshops</b>		
i. NBS counterpart input in design of GIS training Manuals.	<ul style="list-style-type: none"> <li>NBS participation in workshop design facilitated and documented.</li> </ul>	Pre training phase
ii. Training modules developed for both classroom GIS training and continuous in-house training.	<ul style="list-style-type: none"> <li>Training modules developed for intermediate and advanced GIS.</li> </ul>	Pre training phase
iii. Number of participants trained disaggregated by gender.	<ul style="list-style-type: none"> <li>Participants list for training workshops compiled daily.</li> </ul>	During the learning event
iv. Number of classroom training sessions and outline of weekly training activities.	<ul style="list-style-type: none"> <li>Training objectives, programme and facilitation methods designed, documented and used</li> </ul>	Pre training period
v. GIS training delivery monitored and adjustments made, as	<ul style="list-style-type: none"> <li>Workshop monitoring mechanism established and included in the workshop</li> </ul>	Through out learning event

appropriate.	report template.	During in-house training and after training workshops.
vi. Training sessions evaluated	<ul style="list-style-type: none"> <li>Comprehensive training report compiled, produced and disseminated to NBS counterparts including Project Board.</li> <li>Counterpart learning's in workshops discussed as agenda in Project Board Meetings.</li> </ul>	
vii. Capacity assessment of training participants evaluated.	<ul style="list-style-type: none"> <li>Pre and post workshop confidence forms filled and analysed.</li> </ul>	Prior and several weeks after the training events.
viii. Impact of training and level of application of skills and knowledge determined.	<ul style="list-style-type: none"> <li>Training impact evaluation undertaken and report disseminated to relevant parties including Project Board.</li> </ul>	Project evaluation/annual review stage
<b>Technical expertise</b>		
i. Hardware, software and mapping equipment specifications (Plotters, ArcGIS software, database maintenance, spares and parts, access to technical support/after sales services)	<ul style="list-style-type: none"> <li>Resolutions agreed with counterparts documented and shared (Programme staff, Project Board members).</li> </ul>	AWP discussions with counterparts/Project Board meetings.
ii. Assessment of learning needs (computer literacy, plotter use, operations and maintenance) undertaken with NBS counterparts.	<ul style="list-style-type: none"> <li>Learning plan developed with NBS counterparts (UNDP to support key learning needs where applicable)</li> </ul>	AWP discussions with NBS counterparts/Project Board meetings.
iii. Method of mapping equipment & stationery usage.	<ul style="list-style-type: none"> <li>Mapping equipment &amp; stationery tracking sheets developed and updated by counterparts / asset management systems in place, and this equipment factored in.</li> <li>Project staff spot checks during project life cycle.</li> </ul>	During project delivery
iv. Impact of mapping equipment and extent to which it contributed to achievement of outputs	<ul style="list-style-type: none"> <li>Equipment availability and state /working condition assessment and documented in project evaluation/review.</li> </ul>	Evaluation phase/project review phase.
i. Impact of TA capacity development support and extent to which it contributed to achievement of project outputs.	<ul style="list-style-type: none"> <li>Project review report</li> </ul>	Project evaluation phase.
<b>Activity Result 3. (Atlas Activity ID)</b>	<i>NBS state office capacity in information management strengthened through establishment of management units, and begin collection &amp; management of data &amp; provision of liaison support to 10 state governments.</i>	Start Date: 09 July 2011 End Date: 31st December 2011
<b>Purpose</b>	<i>Facilitating NBS information management support to states governments.</i>	
<b>Description</b>	<ol style="list-style-type: none"> <li>Assess critical capacity development needs for data collection, processing and management in all 10 NBS state offices.</li> <li>Incorporate CRMA methodology training to</li> </ol>	

	state focal points during community mapping activities.  3. Establish a data bank in all state ministry of Finance & Planning with a backup at state NBS state offices and provide training for designated data managers.	Start Date: 09 July 2011  End Date: 31st December 2011
<b>Quality Criteria</b>	<b>Quality method</b>  Direct engagement and feedback processes established with NBS state focal points as well as with designated data managers in state ministry of finance.	
<ul style="list-style-type: none"> <li>Quality will be measured through the regularity of CRMA state visits to engage with NBS and state partners.</li> </ul>		

**OUTPUT 2. Gender and age sensitive socio-economic risk mapping completed in 10 states of Southern Sudan and results incorporated into State and GOSS level development planning.**

<b>Activity Result 1</b>	<i>Participatory mapping in 10 states</i>	Start Date: 09 July 2011  End Date: 31st December 2011
<b>(Atlas Activity ID)</b>		
<b>Purpose</b>	<i>To carry out a comprehensive state by state and county by county gender and age sensitive mapping of socio economic risks, and results incorporated into CRMA database tools to support contextual analysis for respective state strategic plans.</i>	

<b>Description</b>	<b>Planned actions to produce the activity result.</b>  <ol style="list-style-type: none"> <li>Existing data collection, validation and analysis methodology further developed with key stakeholders to strengthen gender &amp; age sensitivity and participatory approach.</li> <li>Introductory state level presentations to governors and cabinets in 7 states. (Each state government to agree to roll out comprehensive CRMA mapping and analysis support in respective state prior to mapping activities).</li> <li>CRMA and respective state governments establish operational and logistical modalities for state level mapping through NBS state offices.</li> <li>A complete state level mapping and data collection activities in 7 states, utilizing the established gender and age sensitive methodologies of data collection.</li> <li>Complete county level mapping and data collection activities in 9 states (71 counties).</li> <li>Gather existing secondary geo-spatial baseline/institutional human security data for incorporation into CRMA Arc-Reader package and database.</li> </ol>	
<b>Quality Criteria</b>	<b>Quality Method</b>  CRMA to engage state and county authorities in advance to ensure representation, venue, and other important criteria for mapping are met prior to state and county level mapping activities. State and county level mapping reports will be utilized to measure	<b>Date of Assessment</b>  During and after risk mapping workshops & community consultations.

<b>Quality Criteria</b>	Quality of gender and age sensitive participatory mapping will significantly determine the quality of the perception data of socio-economic risks captured. The quality criteria will include: Numbers of participants in mapping exercise (between 25 and 30 participants); levels of participation from state governments- especially from planning departments; range of stakeholders represented at state and	
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county level mapping; and representation from vulnerable groups, esp. Women and youth.	quality.		
<b>State and County Level Mapping Workshops</b>			
i. Facilitation modules developed	<ul style="list-style-type: none"> <li>• Operation strategy specific to each state and county prepared prior to mapping.</li> <li>• Desk reviews and Primary Information requirements established.</li> <li>• GIS secondary data collected and compiled and incorporated into CRMA tools.</li> <li>• CRM methodology for state and county level mapping developed.</li> </ul>	Pre mapping workshop event	
ii. Number of participants invited for each mapping workshop confirmed and disaggregated by gender and age	<ul style="list-style-type: none"> <li>• Participants list compiled daily.</li> </ul>	Throughout each two day event.	
iii. Number of training sessions held.	<ul style="list-style-type: none"> <li>• 7 state level workshop reports</li> <li>• 79 county level workshop reports</li> </ul>	Throughout the project roll out phase	
iv. Mapping workshops evaluated and discussed with state and county counterparts	<ul style="list-style-type: none"> <li>• Mapping workshop monitoring mechanism designed, through feedback loop with stakeholders.</li> </ul>	Pre and after mapping activities	
<b>OUTPUT 2: Gender and age sensitive socio-economic risk mapping completed in 10 states of Southern Sudan and results incorporated into State and GOSS level development planning.</b>			
<b>Activity Result 2 (Atlas Activity ID)</b>	<i>IMWVG established and functioning in Juba under NBS management.</i>		Start Date: 09 July 2011 End Date: 31st December 2011
<b>Purpose</b>	<i>To establish a common information sharing and management platform for GOSS, UN agencies, and other partners to enhance multi-sectoral coordination and monitoring.</i>		
<b>Description</b>	<p><b>Planned actions to produce the activity result.</b></p> <ol style="list-style-type: none"> <li>1. Initiate a series of inter-agency Information Management Working Group (IMWG) meetings to establish TORs and protocols for information collection, processing management and sharing among agencies and GOSS.</li> <li>2. Facilitate inter-agency meetings to establish and finalized agreement among UN county team to sign up to IMWG.</li> <li>3. Establish IMWG technical secretariat and facilitate establishment of NBS management.</li> <li>4. Provide training and technical support to the IMWG secretariat and training to NBS personnel to facilitate smooth functioning of the secretariat.</li> </ol>		



	Quality Criteria	Quality Method	Date of Assessment
	<p>The quality will be determined by the of the utility and technical functionality of IMWG technical secretariat, including membership size; adaptability of IMWG database to various members agencies respective database systems; the effectiveness of established distribution system; and frequency of systematic updating of database.</p>	<p>Regular IMWG forum established to deliberate on the various technical modalities of the information platform under NBS GIS department management, and subsequent reports will be the main means of verifying quality issues.</p>	<p>IMWG establishment took place in May 2010. Quality verification takes place quarterly.</p>
<b>IMWG forum</b>	<p>i. NBS to take a lead in IMWG discussions on analysis support to BSWG with DHCRC, MoFEP and agencies.</p>	<ul style="list-style-type: none"> <li>• NBS facilitation in documented in minutes of meetings and IMWG working group meetings.</li> <li>• TORs and protocols for information management and sharing developed.</li> </ul>	<p>Pre IMWG Atlas launch</p>
<p>ii. IMWG training modules developed</p>		<ul style="list-style-type: none"> <li>• IMWG training modules developed for NBS GIS team, GOSS and agencies information management teams.</li> </ul>	<p>Pre IMWG Atlas launch</p>
<p>iii. IMWG database management training delivery monitored and adjustments made, as appropriate.</p>		<ul style="list-style-type: none"> <li>• Regular meetings of IMWG working group established to monitor, regularly update, and upgrade IMWG database.</li> </ul>	<p>Pre IMWG launch and during Atlas roll out phase</p>
<p>iv. IMWG database management training sessions evaluated</p>		<ul style="list-style-type: none"> <li>• Evaluation of IMWG training evaluated at established IMWG working group meetings.</li> </ul>	<p>Regularly during roll out phase</p>





<p>v. SSCSE/GOSS/respective agencies capacity level of IMWG atlas management evaluated.</p>	<ul style="list-style-type: none"> <li>• Evaluation of IMWG training established at IMWG working group meetings</li> </ul>	<p>During roll out phase</p>
<p>vi. Impact of training and level of application of IMWG atlas in BSWG process</p>	<ul style="list-style-type: none"> <li>• Training impact evaluation undertaken and report disseminated to relevant parties including Project Board.</li> </ul>	<p>Project evaluation/annual review stage</p>
<p><b>Equipment and Supplies</b></p>		
<p>ii. Database and software needs/requirements of agencies and ministries assessed.</p>	<ul style="list-style-type: none"> <li>• Needs assessment report</li> <li>• CRMA internal weekly reporting template</li> </ul>	<p>AWP discussions with counterparts/Project Board meetings.</p>
<p>iii. Computer/ related hardware, &amp; IMWG atlas database software installation at IMWG technical secretariat managed by SSCSE.</p>	<ul style="list-style-type: none"> <li>• Resolutions agreed with counterparts documented and shared (Programme staff, Project Board members).</li> </ul>	<p>AWP discussions with counterparts/Project Board meetings.</p>
<p>iv. Assessment of learning needs (computer literacy, data management and equipment maintenance undertaken.</p>	<ul style="list-style-type: none"> <li>• Learning plan developed with counterparts (UNDP to support key learning needs where applicable)</li> </ul>	<p>AWP discussions with counterparts/Project Board meetings.</p>
<p>v. Equipment usage.</p>	<ul style="list-style-type: none"> <li>• Equipment tracking sheets developed and updated by counterparts / asset management systems in place, and this equipment factored in.</li> <li>• Project staff spot checks during project life cycle.</li> </ul>	<p>During project delivery</p>




vi. Impact of equipment and extent to which it contributed to achievement of outputs	<ul style="list-style-type: none"> <li>Equipment availability and state /working condition assessment and documented in project evaluation/revie w.</li> </ul>	Evaluation phase/project review phase.
<b>OUTPUT 2: Gender and age sensitive socio-economic risk mapping completed in 10 states of Southern Sudan and results incorporated into State and GOSS level development planning.</b>		
<b>Activity Result 3</b>	<i>Multi-stakeholder analysis in 10 States</i>	Start Date: 09 July 2011 End Date: 31st December 2011
<b>Purpose</b>	<i>Facilitate multi sector planning processes at state level by supporting identification of key risks factors to recovery and integration into state analysis and planning.</i>	
<b>Description</b>	<p><b>Planned actions to produce the activity result.</b></p> <ol style="list-style-type: none"> <li>1. Support state governments in the initiation of multi-stakeholder gender inclusive validation of data obtained from CRMA mapping.</li> <li>2. Produce updated maps and tools for planning and decision making support.</li> <li>3. Provide CRMA tools and methodology to support recurrence cycle of information collection and analysis by respective state governments and planning counterparts.</li> <li>4. Facilitate review of state situational analysis to feed into the strategic planning review process.</li> <li>5. Produce a capacity building strategy for replication of CRMA cycle for each state based on their respective capacity needs.</li> </ol>	
<b>Quality Criteria</b>  The multi stakeholder analysis is a state government led process, and its quality will largely depend of the extent to which respective state government will engage in and own the processes of consultation with stakeholders as well as the overall production of the situational analysis.	<b>Quality Method</b>  A contextual situational analysis based on CRMA outputs of each mapped.	<b>Date of Assessment</b>  At the start phase of the multi stakeholder analysis process following mapping.
<b>State stakeholders Consultation</b>		





i.	Data validation and analysis with stakeholders of each of 10 states	<ul style="list-style-type: none"> <li>National consultant(s) TOR developed with each state governments</li> <li>State situational analysis updated reflecting analysis of CRMA data.</li> </ul>	Post mapping period
ii.	CRM methodology delivery monitored and adjustments made, as appropriate.	<ul style="list-style-type: none"> <li>Monitoring carried out through feedback loop and reporting mechanism established with NBS and state counterparts.</li> </ul>	During multi-stakeholder consultation process
iii.	Training sessions evaluated	<ul style="list-style-type: none"> <li>Training evaluation forms analysed</li> <li>Comprehensive training report compiled, produced and disseminated to counterparts including Project Board.</li> </ul>	Post training events
iv.	Impact of training and level of application of knowledge transferred to dedicated NBS and state staff.	<ul style="list-style-type: none"> <li>Training impact evaluation undertaken and report disseminated to relevant parties including Project Board.</li> </ul>	Project evaluation/annual review stage

**OUTPUT 2. Gender and age sensitive socio-economic risk mapping completed in 10 states of Southern Sudan and results incorporated into State and GOSS level development planning.**

<b>Activity Result 4 (Atlas Activity ID)</b>	<i>Data collection, validation and analysis methodology developed with key stakeholders. Related analysis integrated into planning and programming at both state and GOSS level.</i>		Start Date: 09 July 2011 End Date: 31st December 2011
<b>Purpose</b>	<i>To facilitate the adoption of a standard methodology for community risk mapping and consultations and analysis among key actors to facilitate evidence based planning &amp; programming and ensure coordination of activities among government and key actors.</i>		
<b>Description</b>	<p><b>Planned actions to produce the activity result.</b></p> <p>Establish state support through provision of training on tools and methodologies to UNDP State statisticians; planning &amp; IT officers in 10 states.</p> <p>Conduct Juba level workshop in collaboration with Local Government Board; LGRP, SSP and NBS to sensitize &amp; attract GOSS to utilize data produced at county level for planning and prioritization of development programmes.</p>		
<b>Quality Criteria</b>	<ul style="list-style-type: none"> <li>Quality will be defined by the availability of methodology manual for use and training by NBS and partners.</li> </ul>	<b>Quality Method</b>	<b>Date of Assessment</b>
		The methodology manual content will be developed through consultations with key	From November 2011

		partners and subject to periodic revisions based on lessons learned inputs from the field.
<b>Output 3. GOSS and UNDP capacity development for crisis and gender sensitive recovery and development programming enhanced and sustainably supported</b>		
<b>Activity result 1 Atlas Activity ID)</b>	CRMA information and analysis resources used by ongoing programming units in their support to state planning and programme development, including support to State sectoral Budget committees and State Planning Units.	
<b>Purpose</b>	To improve quality of existing data to enhance multi-sectoral coordination and monitoring.	
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Establish methodology for adoption of standards for data collection, sector by sector, through SS IMWG.</li> <li>2. Facilitate the establishment of a service centre within the NBS to provide technical support and products to clients.</li> <li>3. Facilitate spatial and contextual analysis of respective sector data sets and provide inputs to evidence based crisis sensitive planning and programming among key agencies and funds.</li> <li>4. Recruitment of full time capacity development &amp; policy officer to facilitate roll out strategy for capacity development in 10 states.</li> <li>5. Facilitate spatial and contextual analysis of respective sector data sets and provide inputs to evidence based crisis sensitive planning and programming for CSAC, LGRP and SSP, among key agencies and funds.</li> </ol>	
<b>Quality Criteria</b>	<b>Quality method</b>	<b>Date of Assessment</b>
Assessment of learning needs in, data management, navigation of IMWG software packages and analysis support to among UNDP programme teams, funds and agencies.	Client tracking sheets developed and utilized to track activities, feedback and follow up requirements.	December 2011
The utilization of CRMA outputs to inform, guide and support prioritization of programming activities.	Client tracking sheets developed and utilized to track activities, feedback and follow up requirements.	Start Date: 09 July 2011 End Date: 31st December 2011
<b>Output 3. GOSS and UNDP capacity development for crisis and gender sensitive recovery and development programming enhanced and sustainably supported</b>		
<b>Activity result 2 Atlas Activity ID)</b>	Systematization of experiences from field-level interventions and CRMA information as basis for support to South Sudan Peace Commission, CSAC Bureau, and various peace-building and development processes.	

<b>Purpose</b>	To enhance visibility and outreach of CRMA products among key government and international partners view of influencing decision making.		
<b>Description</b>	Publication & distribution of State & County level consultation reports, and other key outputs.		
<b>Quality Criteria</b>			
How much Government and UN partners use CRMA tools and methodologies, and data to coordinate their activities.	Government and UN partners use CRMA tools and methodologies, and data to coordinate their activities.	Client tracking sheets developed and utilized to track feedback and follow up requirements.	<b>Date of Assessment</b> Start Date: 09 July 2011 End Date: 31st December 2011 Continuous basis





United Nations Development Programme

VII. ANNEXES

Annex 1. Risk Analysis CRMA Framework.

Type	Date Identified	Description of Risk	Review Date	Risk Management and Monitoring	Critical Risk? (Y/N)
Security		Post referendum violence and surge of rebellion in a number of states bordering Northern Sudan is likely to have a negative impact in some project implementation activities.		UNDP with its government partners will work to reduce the risks involved by ensuring enough information flows and update the project management on any suspected obstacles/problems in locations where project activities and staff will be deployed	Y
Organizational		CRMA Southern Sudan has been separated from the national project in Khartoum from July 2011. Although the project had a separate implementation modality for the south, management and technical support was obtained from Khartoum. The management changes and related adjustments are likely to slow down the pace of project implementation.		UNDP Southern Sudan Country office should ensure swift recruitment of project management and technical teams to ensure a smooth transition.	Y
Financial		The project has no funding for July – December 2011, to meet targeted activities.		UNDP Southern Sudan Country Office should allocate funding for July – December 2011 from track resources; and begin mobilizing funding for 2012 & beyond. CPRU Team leader briefed to take action.	N
Operational		UNDP-CRMA Project admin and part of operations support is managed under LOA signed with IOM, while overall project ownership remains with UNDP. The arrangement with IOM is reviewed annually by the two parties. In the event of a discontinuation, problems related to the transition may arise, esp. Requirement of human resources arrangement change to with UNDP contracts. This may also involve possible disruption of project activities, loss of staff, and delay in overall project delivery.		UNDP and governmental counterparts (NBS) should make a decision regarding the status of the LOA with IOM beyond 2011 and or manage the transition to UNDP in the event of a discontinuation of the LOA. Both UNDP offices in Khartoum and Juba to ensure sufficient funds in ATLAS for purposes related to staff.	N
Environmental		Lengthy annual rainy season from May every year, and subsequent inaccessibility of roads and airfields will potentially interrupt project implementation schedules.		UNDP-CRMA Project in consultation with counterparts at SSSCSE to optimise risk mapping operations before end of July 2011.	N

## B. Updated Project Issues

Type	Date Identified	Description of Issue	Completion Date	Issue Mgmt Comments	Solved? (Y/N)
Change:					N
Problem:		CRMA Project is implemented with and through Southern Sudan with NBS as the key GOSS counterpart. High counterpart expectations in relation to project scope and resources could affect counterpart relations and therefore quality of project implementation.		Project Management should establish and maintain channels of regular communication with the counterpart and stakeholders on emerging issues and key limitations in advance.	N
Problem:					Y

## Annex 2. NBS GIS Capacity Assessment

### Building Capacity to Implement Spatial Data Management at the South Sudan Centre for Census and Statistical Evaluation (NBS)

#### I. Introduction

The South Sudan Centre for Census and Statistical Evaluation (NBS) is a governmental office authorized for the collection, compilation, analysis and publication of statistical information on economic, social, demographic, environmental, and general activities and conditions of the people as well as evaluating social impacts of public policies, projects and programmes in the South Sudan.

The centre is responsible for organization of schemes of economic, social, demographic and environmental statistics with a view to coordinating and disseminating such statistical information. External technical assistance and donor support are foreseen as important bridging elements until the centre grows in strength and matures. Due to the continuous restructuring of administrative boundaries at county and lower levels in the South Sudan, the need to employ reliable and efficient spatial data management is indispensable. To this effect, the centre has established a GIS and Remote Sensing department with the aim of generating spatial statistics, accurate spatial data aggregation and disaggregation, providing monitoring and evaluation tools as well as mapping among others.

#### The functions of the NBS (Excerpt from Master Plan for Statistics Development in Southern Sudan, 2008)

As stipulated by the *Master Plan for Statistics Development in Southern Sudan*, the functions of the centre are:

- Carry out any census and relevant surveys in Southern Sudan;
- Promote and develop integrated social and economic statistics pertaining to Southern Sudan and to each of the States thereof and to co-ordinate plans for the integration of those statistics and keep these plans under continuous review;
- Establish statistical standards and their use by all producers of statistics so as to facilitate integration and comparison of statistics produced both nationally and internationally;
- Co-ordinate statistical and data collection activities in Southern Sudan so as to avoid duplication of efforts in the production of statistics, ensuring optimal utilization of available resources, and reducing the burden on respondents in providing data;
- Collect, compile, analyze and disseminate statistics and related information on economic, social, demographic and environmental activities;



- Collaborate with the Ministries of the GOSS, States, Commissions and public service institutions in the collection, compilation and publication of statistical information, including statistics derived from the activities of those Commissions and institutions;
- Maintain an inventory of available and relevant statistics and information in Southern Sudan;
- Assist users of statistical information in obtaining international statistics and relevant information;
- Provide statistical, monitoring and evaluation services and professional assistance to official bodies, civil society, researchers and international institutions and public in general;
- Provide a contact point for international organizations and foreign institutions and researchers in need of statistics and information on Southern Sudan; and
- Act as a contact point for international organizations and foreign institutions in need of statistics on matters related to Southern Sudan.

Among the several departments in the centre to accomplish the above mentioned functions, the GIS and RS department is of direct operational interest for CRMA in its embarking phase. The GIS and RS department of the Centre has assembled a spatial data management facility to fulfil the general objectives of the centre as mandated by office of the President. South Sudan is emerging from a long period of armed conflict that has robbed considerable amount of skilled manpower among others. Therefore, the need to enhance the capacity of public offices in all hierarchies is a fundamental task to achieve sustainability in all spheres of administration.

## II. Capacity Assessment

The available capacity to manage spatial data has been assessed in four essential categories namely **personnel, data, hardware** and the **system** in use. Later on the quality of personnel to effectively run a normal GIS undertaking has been assessed using **capability spectrum matrix**.

### 1. Personnel

According to the director of the GIS and RS department at the centre - Mr. Charles Agono Mona, there are 10 staff members engaged in spatial data management of which 5 are university graduates of different disciplines and 5 are high school graduates. Two of the 5 university graduates have adequate knowledge in map making and visualization while the rest three are at intermediate stage of cartography and visualization. So far their capacity has been geared towards the population census fulfilling task. However, the mandate of the NBS extends to wide range of data collection, analysis, standardization, monitoring and distribution of data in the South Sudan. The GIS & RS department acknowledges the need for development of diversified skills and putting systems in place. Generally, some basic skill is available to accomplish some of the tasks like basic map composition and visualization.

The instant response to capacity building need at the centre revolved around raising the capacity of the technical personnel. Note that the discussion was with the GIS & RS head and the "the CRMA Implementation Strategy" indicates the rollout will be spearheaded by tasks directed to capacity development of this specific department. The staff capacity is usually assessed through a 'capability spectrum matrix' where the level of GIS operation in the organization is determined. The matrix is a comparison of the capacity level against each GIS operation.

#### Capability spectrum in an organizational hierarchically put as:

##### Level 1: Weak

There is limited or no capacity to effectively conduct some component of a GIS or only very few individuals in the organization are able to plan/practice/run some specific activities.

##### Level 2: Average

With little external support the staff can be reorganized/trained to achieve the projects spatial data management goals. Some staff member are able to plan/practice/run some specific GIS activities.

### Level 3: Strong

Without any external support the staff of the organization can efficiently operate essential part of the GIS component. Many of the staff members are able to plan/practice/run most to all of specific activities. There is reliable work force to initiate and execute jobs with other departments in the organization.

#### GIS operations can be summed up into 4 steps.

In a project that is planning to use GIS as spatial data management tool, there are generally four stages the GIS activity passes through the project life.

#### Step 1: Identifying objectives

The first step of the process is to identify the objective of the analysis and the main users of the product. This step is important because clearly identified goal, the means to achieve it and how the products is eventually presented to the end user determine the scope of the project as well as how the implementation of the analysis is carried out.

#### Step 2: Create a project database

The second stage is to create a project database. Creating the project database is a three-step process. The steps are designing the geodatabase, gathering data for the database, and managing the geo-database<sup>3</sup>.

*Often creating the project database is one of the most important, time consuming and expensive part of the GIS activity. The completeness and accuracy of the data determines the accuracy and usefulness of the results.*

#### Step 3: Analyze the data

The third stage is to analyze the data. Analyzing data in a GIS ranges from simple mapping to creating complex spatial models. A model is a representation of reality used to simulate a process, predict an outcome, or analyze a problem and generate underlying spatial relationships. With a GIS it is possible to quickly perform analyses that would be impossible or extremely time consuming if done by hand or visual interpretation. Generating several alternative scenarios by changing processing methods or parameters and running the analysis again is feasible and efficient in GIS.

#### Step 4: Present the results

Final product should effectively communicate GIS findings to the anticipated audience. In most cases, the results of a GIS analysis can best be shown on a map. However, there is always a vital data behind the maps that may be of immense importance for the end user.

Raising organizational and individual capacity is therefore essential for/in each step.



<sup>3</sup> Geodatabase does not necessarily refer to the common ESRI format. Any structured spatial data repository system is considered as geodatabase in this document.

**Matrix of Capability framework (Capability Spectrum) for spatial data management**

		Steps in GIS operations			
		1	2	3	4
Levels of capability in the organization	1 Weak	Identify objectives	Creating a project database	Analyze the data	Present the results
	2 Average				
	3 Strong				

It is useful to identify where the NBS GIS team as an entity and individual is placed in the above matrix and how it can be enhanced. The TRMA has already conducted a quick capacity assessment in the areas of staff skill, data availability, systems in place and hardware adequacy in June 2009. These four components need to be taken into account in any further assessment of the centres capacity for module development. Module development follows after proper diagnosis through the above matrix.

**2. Data**

The NBS has a rich collection of spatial and non spatial data in its repository. Some of the data are processed for the consumption of the centre while many others are still in their native format simply stored there.

The main spatial data they have are:

**i. Census Mapping**

- a. Settlement
- b. Water points/Boreholes
- c. Health facilities
- d. RoL: courts, police stations etc
- e. Education facilities

**ii. Boundaries**

- a. Bomas
- b. Payams
- c. Counties: the county map that is widely in use in the south is significantly different from the one this centre is using. However, the centre has not yet made the data accessible for any other user. Unfortunately all users are still forced to use the old one even though they know that it is no more relevant.
- d. States
- e. There is also enumeration polygon data

**iii. Satellite Data** (allegedly available at the centre – but not accessible to any)

- a. Landsat: Covers the entire South Sudan. The quality may be questionable as we are aware that the scanner on board landsat is not properly functioning since 2003. Any data acquired after 2003 is highly compromised by vendors.
- b. Quick bird: for some urban areas, this datasets could generate ample information for planning and monitoring.
- c. Aster. This is a robust dataset which is being used for land cover assessment and related natural resources monitoring worldwide. We could not confirm the spatial coverage of the data.
- d. SPOT Xs. The Spot satellite imagery that covers the entire South Sudan has been procured for use in the census. However, due to lack of technically capability and personnel shortage this valuable dataset has never been put to any use other than census polygon mapping.

### 3. System

The spatial data management system is fully ESRI products, specifically ArcGIS Desktop, dependent. Software and license have been purchased by UNFPA and FAO-SIFSIA.

### 4. Hardware

The NBS runs its main operations from two locations namely Rumbek and Juba. While the former host most the technical operations including most of the GIS tasks, the later one serves as the seat for main office. Consequently the hardware and personnel are located in both locations.

#### Rumbek

- 10 desktops 3 years Old
- Plotter HP 5505
- B&W wide format scanner
- Photocopy Machine A3 Size
- 3 Printers, A3 size

#### Juba

- 5 desktops (3 of them are purchased by FAO for joint use at the NBS premise)
- 1 A3 printer
- 2 A4 printers
- 2 Laptops
- More than 300 GPS units (some are located in Rumbek)

During the discussions some of the shortages in terms of hardware are:

- i. Computers: The available ones are ageing.
- ii. Plotter: The CRMA plotter has already been taken to the NBS after the first discussion in Juba. As soon as the space arrangement is sorted out, the plotter should be up and running.  
*N.B. there is a need to purchase plotter hard disk for efficient use of the plotter.*  
Laminator: given the seasonal moist environment and lack of robust infrastructure, laminating maps could significantly increase their durability. This facility is very hard to find in Juba.
- iii. Wide format scanner-Colour. It was explained to them by us that there are not that many maps for Sudan to scan. The cost of procuring, purchasing and transporting this equipment may not be justified at all. Therefore, another way round should be sought to scan maps which happens rarely.

### III. Results of the capacity building needs diagnosis

The capacity assessment endeavour has been conducted largely with direct input from the director the GIS and RS department - Mr. Charles Agono Mona- in two separate meetings in Juba and Khartoum. Information for capability assessment matrix and the subsequent intervention priorities have been discussed. Training the department's personnel that are located both in central office, state offices and in lower administrative levels is agreed as the key component of the capacity building product by CRMA.



		Steps in GIS operations						
		1	2a	2b	2c	3	4	
Levels of capability in the organization		1	Geodatabase design	Spatial Data collection	Geodatabase management	Analyze the data	Present the results	
1	Weak							
2	Average							
3	Strong							

The above matrix shows the current level of knowledge and skill in NBS according to the diagnostic process jointly exercised by TRMA and the NBS. Therefore, the CRMA capacity building endeavour should target raising the "level of capacity" in the corresponding GIS operations to the next higher level. The logical priority accordingly should be bringing capacity shortfalls termed as 'Weak' into 'Average' and then proceed to elevate the 'Average' level into 'Strong' position. The centre believes there is sufficient skill and knowhow in spatial data collection as far as their current activity is concerned. However, they are open to new knowledge and skill that can consolidate their strength in this component of GIS activity.

#### IV. Capacity Building Priorities

It is stressed that the training product of CRMA be focusing on the application of GIS for the overall mandate of the NBS. In the past other organization tried to provide "capacity building" only based on resources and time they have without taking into account the actual needs of the department. Though such fragmented interventions provided basic skills to individuals in the centre, none of such efforts laid a foundation for a lasting solution to the skilled manpower shortage in different hierarchies of spatial data management. Drawing a lesson from these experiences the director stressed for a sustainable, effective and South Sudan focused capacity building intervention by CRMA.

The diagnostic process has led this assessment to recommend on focusing on GIS data analysis and statistics generation. It is also imperative to start from lower level and take upon the more advanced ones. The director of the GIS and RS department at the NBS, however, emphasized the availability of trainees during specific time is more important than the order of the content complexity. Instead of pulling several staff from filed for intermediate training, he prefers to start in advanced ones for the staff in the centre. Further operational details needs to be clarified between CRMA and the GIS and RS head of the centre.

The recruitment task or decision on who is trained what is the responsibility of the centre. However, CRMA will have a say regarding the technical fitness of the trainees in order to conduct the training on relatively homogeneous audiences.




Overview matrix on strategies to deliver CB through training

Strategy	Duration	Expected output	Opportunities available	Foreseen obstacles
Display and hands on GIS hardware	Usually 10-30 minutes depending on the type of HW	Trainees should be able to operate by themselves	Many HW are already available at NBS	Shortage of consumables in Juba may be limiting factor
Internalizing GIS operations	60% of the time allocated formal training	Trainees will become flexible to use any software once they fully understand the concepts of the GIS operations	Some of the staff have the ambition, the institutional support and the capacity to learn quickly	Single software dependency (ArcGIS Desktop)
Hands on practical GIS skills	40% of the time allocated formal training	Skilled and efficiency increased to accomplish GIS tasks	The staff, data, system as well as the HW are available	none
Follow up	At least 1 day per week. Assuming CRMA is collocated with NBS the whole time.	Skill and knowledge internalized, mistakes spotted and corrected in time		

Acting upon the strategies could take two ways: formal training structured in modules and informal training through demonstration of as the circumstances call for.

Module: **Intermediate GIS & RS**

Duration 10 days

Frequency: 2 formal trainings per year

Follow up: CRMA technical backstopping during the whole time.

Contents expected to be covered:

1. Spatial data management : Vector
  - i. The vector data structure, pros and cons
  - ii. Geoprocessing: focusing on creating new statistical information from the available data they have already collected
  - iii. Editing: Lines and polygons editing, error identification
  - iv. Geometric calculation: determine polygon area and perimeter, inserting formulae and data summarizing, data mining
  - v. Map composition and Visualisation: symbology, labelling
2. Spatial data management: Raster
  - i. Internalizing the fundamentals of raster data representation, advantages and disadvantages

- ii. Comprehensive coverage on the use Spatial Analyst
- iii. Raster visualization, reclassification and calculations

3. Data capture:

- Remote Sensing
- Digitizing and Georeferencing
- Advanced GPS usage

4. Projection and Coordinate systems. Relevant systems for South Sudan, use of different systems for different occasions, etc

Remark: The trainings are required to use extensive examples, data and screenshots reflecting the contemporary socioeconomic and natural landscape of the South Sudan.

**Module: Advanced GIS &RS**

Duration 5-7 days

Frequency: 2 formal trainings per year

Follow up: CRMA technical backstopping during the whole time.

Content outline:

1. Detail insight into spatial analyst
2. Image classification systems, pros and cons, hands on different image classification systems, statistical data generation, change detection, etc.
3. 3D data management
  - a. Creating DEM
  - b. Extracting topographic data
  - c. Generating hydrological information
4. Data conversion/ data interoperability
5. Advanced vector editing (license issue may be limiting)
6. Spatial Model building and application, cell based statistical analysis
7. Spatial data interpolation techniques (pros and cons of different techniques for south Sudan conditions)

Remark: The trainings are required to use extensive examples, data and screenshots reflecting the contemporary socioeconomic and natural landscape of the South Sudan.



Annex 4 1 above

CRMA Staff Costs: 8 out of 13 posts occupied in July 2011				
Name of Position	International/National	Number of Months	Proforma Cost (Euro)	
National Capacity Building Officer NOA/NOB (Vacant)	National	6	16,125	
Admin associate (G6) (Vacant)	National	6	12,600	
CRMA Manager/Coordinator (P4)	International	6	63,000	
Capacity Dev't Officer (NBS) P2	International	6	39,900	
Mapping/APS Officer	International/ P3	6	42,000	
Mapping Officers (Vacant)	International UNV	6	16,800	
Mapping/APS officer (NOA)	National	6	14,700	
IT/D.Base Officer (vacant)	International UNV	6	16,800	
GIS Officer (Vacant)	International UNV	6	16,800	
GIS Officer (NOA)	National	6	14,700	
NBS Liaison Officer (NOA)	National	6	14,700	
Driver	National	6	5,880	
Driver	National	6	5,880	
IT Support for NBS – 2 Posts (NOA)	National	3	14,700	

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