



PEACEBUILDING FUND PROJECT DOCUMENT COVER SHEET

Project Title: Assessment of water harvesting structures for sustainable livelihoods and peace building in South Sudan	Recipient UN Organization(s): Food and Agriculture Organisation of the United Nations (FAO); United Nations Environment Programme (UNEP)
Project Contact: Ali Said, Chief Technical Advisor, FAO South Sudan, Juba; Telephone: +211955039736; Ali.Said@fao.org Chado Tshering, Programme Officer, UNEP South Sudan Juba; Telephone: +211928009518; Chado.TSHERING@unep.org	Implementing Partner(s): Ministry of Water Resource and Irrigation/Republic of South Sudan; Ministry of Environment/Republic of South Sudan
Project Number: To be completed by UNDP MDTF Office	Project Location: Jonglei, Eastern Equatoria and Lakes States
Project Description: The aim of the project is to contribute to effective peace building by reducing conflicts between communities for dry season livestock water through enhancing the knowledge base on water harvesting and management.	Total Project Cost: US\$ 557,459 Peacebuilding Fund: US\$ 557,459 Government Input: -Staff time Other: n/a Total: 557,459
Project Start Date and Duration: January –August 2014	
Gender Marker Score¹: <u> 1 </u> <i>Score 3 for projects that are targeted 100% to women beneficiaries and/or address specific hardships faced by women and girls in post-conflict situations;</i> <i>Score 2 for projects with specific component, activities and budget allocated to women;</i> <i>Score 1 for projects with women mentioned explicitly in its objectives, but no specific activities are formulated nor is a budget reserved; and</i> <i>Score 0 for projects that do not specifically mention women.</i>	
PBF Outcomes²: The project will contribute to PBF Outcomes 7 (management of natural resources) and 9 (sustainable livelihoods) by guiding government, development partners and communities to effectively plan, implement and manage water harvesting interventions. The project will enhance the knowledge base on water harvesting by undertaking a comprehensive socio-economic and environmental assessment and analysis of past and present water harvesting practices and proposing recommendations and guidelines for sustainable water harvesting in South Sudan effectively contributing to peacebuilding.	

¹ The PBSO monitors the inclusion of women and girls in all PBF projects in line with SC Resolutions 1325, 1612, 1888, 1889.

² PBF specific outcome areas: 1 Security Sector Reform; 2 Rule of Law; 3 (DD)R; 4 Political dialogue for Peace Agreements; 5. National reconciliation; 6. Democratic governance; 7. Management of natural resources (including land); 8. Short-term employment generation; 9. Sustainable livelihoods; 10. Public administration; and 11. Public service delivery (including infrastructure)

Project Outputs and Key Activities:

The project will undertake a socio-economic and environmental assessment of water harvesting structures including *hafirs* constructed by the government, UN Agencies, NGOs, oil companies and other development partners in South Sudan over the past decades to inform the government and development partners on strategies and approaches for effective water harvesting interventions impacting on conflict reduction and peacebuilding. A comparison of *hafirs* constructed based on feasibility studies and those built without will be made in order to gauge the extent to which feasibility studies contribute to the sustainability of the *hafirs* and a reduction of conflict vis-à-vis the costs of construction of the *hafirs*. The assessment will include comparison of different size *hafirs* and smaller ponds with respect to meeting livestock water demand, conflict reduction and community stability. The viability of the structures in terms of socio-economic return, environmental sustainability and management suitability will be assessed. A mapping of the existing water harvesting structures will be undertaken in the selected states to determine the sample water harvesting structures for detail socioeconomic and environmental assessment.

The assessment will cover Jonglei, Eastern Equatoria and Lakes States where *hafirs* and other forms of water harvesting facilities exist. Particular focus will be given to counties where water harvesting interventions aimed at reducing inter and intra ethnic conflict over the use of water resources. The assessment will also investigate the past management of *hafirs* and other water harvesting facilities by communities through participatory impact assessments and arrangements for maintenance of such facilities in the future. A comparison of water harvesting with management committees and those without will be made and conclusions drawn for appropriate institutional development for sustained use of *hafirs* and to maximize contribution to conflict reduction and peace building. This assessment will contribute to the ongoing dialogue on the contribution of *hafirs* to conflict reduction and peace building, and inform future strategies and programmes on water harvesting interventions.

The assessment will particularly draw lessons learned from the FAO *hafirs* built in Jonglei with CIDA funding, *hafirs* built by UNOPS, UNDP and others in various parts of the country with Peace Building Fund and *hafirs* financed by Multi-Donor Trust Fund and built by NGOs and contractors. FAO has direct experience in the development of water harvesting in South Sudan and elsewhere. UNEP has done extensive work on pastoralism in Sudan and other parts of Africa, and conflicts surrounding Natural Resource Management (NRM) and peacebuilding efforts. Based on lessons learned and best practices, and from review of existing documents, FAO and UNEP will develop guidelines for water harvesting in South Sudan to maximize impacts on conflict reduction and peace building. This will include guidelines for formation of Natural Resource Management Committees for *hafir* management; Environmental and Social Impact Assessment; Feasibility Study of water harvesting projects; and gender mainstreaming in water harvesting projects.

Critical training and other capacity building requirements needed to enhance the contribution of water harvesting interventions to peace building will be elaborated and training delivered to key stakeholders at the national and state levels engaged in water harvesting.

The findings of the assessment and guidelines developed will be published and shared with government, UN, NGOs and other stakeholders to increase awareness and share the knowledge generated and initiate policy dialogue on effectiveness of water harvesting interventions in South Sudan.

<i>(for PRF-funded projects)</i>	
Co-chairs of the Joint Steering Committee	
Toby Lanzer DSRSG/RC/HC/UNDP/RR Co-chair of the PBF SC _____ Date & Seal	Mary Yak Deputy Minister of Finance and Development Planning Chair of the PBF SC _____ Date & Seal
Recipient UN Organization(s) (If it is a joint project all Heads of UN Entities/Agencies receiving funds should sign)	National Implementing Partner(s)
Dr. Sue Lautze Food and Agriculture Organisation of the United Nations, South Sudan _____ Date & Seal	Ministry of Water Resource and Irrigation/Republic of South Sudan; Ministry of Environment/Republic of South Sudan Arshad Samad Khan United Nations Environment Programme, South Sudan _____ Date & Seal

UNITED NATIONS ENVIRONMENT PROGRAMME
 1-5 NOV 2013
 Post-Conflict and Disaster Management Branch (PCDMB)
 Juba, South Sudan

COMPONENT 1: (The "WHY")

a) Situation Analysis/Context

While Southern Sudan remained largely calm following the signing of the Comprehensive Peace Agreement (CPA) in 2005, several tribal conflicts, armed groups and militia continued to undermine peace and stability in many rural areas. Since then, conflicts over access to traditional grazing lands and water rights have increased.

With the exception of improvements in Central and Western Equatoria, and deterioration in Unity and south/central Jonglei, the overall distribution of violent conflict was similar in 2011 to those recorded in 2009, the most violent year of the CPA period when about 3,000 South Sudanese were killed in recorded violent conflicts³. In 2011, the number of incidents recorded by OCHA rose in each of the ten states. As a proportion of all reported conflict, the relative prevalence of conflict decreased in Warrap (albeit temporarily - raiding and insecurity increased markedly in early 2012) and Western Equatoria. Conversely, conflict increased in Lakes, Unity and Upper Nile.

As in 2009 and 2010, Jonglei remained by far the most conflict-affected state⁴. Significant inter-tribal violence between Lou Nuer and Murle in Jonglei began over the months of December 2011-January 2012, escalating into 2012⁵. Persistent conflict between the two groups, along with the surge in refugees from Sudan over the previous year, combined with ongoing minor conflicts and insecurities in Jonglei in 2012, created a situation of significant instability with the fledgling state's capacity to respond to these issues severely limited.

The majority of violent conflict in these areas remains cattle-related. Although cattle are not always the primary driver, the primary use of cattle for dowry payment and the fact that marriage is seen as a rite of passage for both male and female youth puts young men under pressure to meet the escalating dowry costs. The consequence is the involvement of youth in raids of neighbouring communities

³Reeve, R (2012), PEACE AND CONFLICT ASSESSMENT OF SOUTH SUDAN, Understanding Conflict. Building Peace International Alert

⁴ In 2011, UN OCHA reported 208 conflicts - 43% of the total conflict incidences in South Sudan

⁵IRIN, "In Brief: MSF May Suspend Operations in South Sudan's Pibor over Escalating Violence." *IRINnews*, IRIN Africa

during which massive numbers of cattle are appropriated and widespread civilian casualties occur, triggering reprisal attacks to recoup lost cattle and loss of life. The cycle is exacerbated by the absence of other livelihood or employment opportunities for youth⁶. Conflicts over access to water and pasture, and disputes over political boundaries that delimit pasture, water and migration routes are also significant. These conflicts exist in all states, although they are notably more widespread in the predominantly pastoralist states of Jonglei, Lakes, Unity, southern Upper Nile, Warrap and, to a lesser extent, Eastern Equatoria.

The government and international community have been investing in livestock water provision including *hafirs* over the last several years as a means to mitigate the conflicts arising from dry season water demand. It is a very well-known fact that water development for livestock is expensive, more costly per m³ than the cost of water in any other sector except possibly for energy⁷. Therefore, there is a need to carry out a socio-economic assessment to understand the complex social dynamics of pastoralists in conflict prone areas for better planning, design, organization and management of water facilities. It is equally important to understand the effectiveness of *hafirs* developed for the pastoralist communities in reducing conflicts between communities and other socio-economic & environmental impacts. This joint FAO-UNEP socio-economic assessment of water harvesting in South Sudan aims at generating lessons needed to support a long term, cost effective and environmentally sound programme for livestock water development in South Sudan.

b) Project Justification and Core Strategy (Theory of Change)

1. Project's direct and immediate relevance to the peacebuilding process in South Sudan

The project will address structural causes of conflict, notably competition over natural resources and the inequitable distribution of these resources, and contribute towards the expected outcomes of the PBSP ("Improved economic and employment opportunities for young people and access to water resources for both human and livestock consumption"). A key driver of conflict in South Sudan is the competition over scarce resources and the absence of economically productive activities for youth. Communities frequently cite conflict over grazing land and access to water points, including between agriculturalists and pastoralists, as a major cause of violence. The movement of herders (mainly youth) from one county to another and the constrained access to water for livestock results in water-related conflict, for example, the scarcity of water during the dry season in Jonglei has been a major cause of conflict for local communities as well as for those in neighbouring states. The construction of *hafirs* is intended to increase the availability of water for livestock and humans, particularly in those communities under stress and along migratory routes, resulting in a proportional decrease in the incidences of conflict.

However there is no concrete evidence regarding the effectiveness of *hafirs* built so far with government and donor funds in reducing conflicts and peace building. FAO and UNEP will undertake a comprehensive assessment and analyse the effectiveness of various types of water harvesting structures including *hafirs* built with SSRF, PBF and MDTF resource in the past several years. The assessment will among others, include participatory impact assessment (PIA) to understand the impacts of water harvesting interventions to local communities, their sense of ownership and accordingly inform government, UN and donors on appropriate approaches for water harvesting intervention in South Sudan. The assessment will also recommend how best water harvesting interventions can be linked to livelihoods development activities such as agricultural and skill developments planned under Priority 12 of the PBSP, thus reducing the engagement of youth in ill-conceived conflicts.

The lessons learned from past and present water harvesting interventions (including *hafirs*, community ponds, and roadside dugout ponds) from within South Sudan and elsewhere will inform government and

⁶Peace Building Fund Priority Plan South Sudan

⁷ World Bank (Nov. 2012), Development, Utilization and Management of Water Resources: Rapid Water Sector Assessment and Way Forward. Water Resources Unit, Africa Region.

development partners on cost effective and sustainable water harvesting approaches that will effectively contribute to community stability and peace building. In so doing the project will contribute to the PBF's South Sudan Priority area 13 (construction of *hafirs* and water points) which is part of the peace-building priorities in the Peace Building Strategic Plan (PBSP). The project is aligned with the priorities of the Government of South Sudan (GOSS) as it is drawn directly from the four pillars that constitute the South Sudan Development Plan (SSDP), specifically SSDP 4.4.2.2 - Mitigate community conflict over water and grazing rights abuse. The project also aligns with one of the key aims of PBSP which is to assist the RSS to respond to immediate peace-building priorities by building and strengthening the capacity of the government to manage conflict and lay the foundations for sustainable peace. The assessment will generate the critical knowledge required to ensure water harvesting interventions executed with PBF and other funding and those constructed in the future will achieve the intended objectives of livelihoods improvement, conflict reduction and peace building by generating recommendations and guidelines for technical and institutional capacity building support.

2. Funding situation for *hafir* construction in South Sudan

The Government of South Sudan under the Multi-Donor Trust Fund (MDTF) undertook a feasibility study for the construction of 10 water harvesting sites in Jonglei, Eastern Equatoria and Warrap States. The study was completed by GiZ, in 2011 and focused on engineering designs which supported the Ministry of Water Resources and Irrigation (MOWRI) in drawing up standard *hafir* designs. The study also included an environmental and social impact assessment. Currently *hafir* construction is underway in Eastern Equatoria, Warrap, Lakes and Jonglei States as indicated in the table below.

Mapping of current *hafir* construction in South Sudan

State/location	Implementing Agency	Donor	# of <i>hafirs</i>
Jonglei (Uror&Nyiröl Counties)	FAO	CIDA	4
Jonglei State (Uror County)	MOWRI/RSS	MDTF	1
Eastern Equatoria (Kapoeta East County)	MOWRI/RSS	MDTF	1
Eastern Equatoria (Kapoeta East and North Counties)	PACT	South Sudan Recovery Fund (SSRF)	4
Warrap (Tonj East County)	PACT	SSRF	2
Lakes (Rumbek Central, Rumbek North and Cueibet Counties)	UNOPS	SSRF	4

Building on the MDTF-funded study, FAO, with funding from the Canadian International Development Agency (CIDA), carried out a feasibility study which included adaptation of the standard engineering design as well as comprehensive socio-economic and environmental analysis for construction of four *hafirs* in Jonglei State. The FAO assessment clearly indicated the magnitude of dry season water demand for livestock in Jonglei and confirmed that the existing interventions are too small compared to the requirements, as local communities would still need to move to cattle camps further away from their villages. This clearly indicates that there are critical funding gaps for water harvesting interventions for drier parts of Jonglei. Similarly there is greater demand for livestock water in other drier parts of South Sudan including Eastern Equatoria, Lakes, Upper Nile and Warrap States. On the other hand, there is a knowledge gap on the appropriate approaches and options for water harvesting available to meet the demands for livestock and human consumption in drier areas. In view of the great demand, limited funding and knowledge on water harvesting, it is imperative that the use of available resources of donors, government and other development partners be based on comprehensive knowledge of the technical and cost effectiveness of various types of water harvesting interventions so that impacts on conflict reduction

and peace building can be maximized.

3. Catalytic effect of the project

Current practices in water harvesting in South Sudan focus on hardware rather than software, thus posing serious questions on long term sustainability. The assessment of various types of water harvesting structures will provide critical information and guidance on the design and management of the *hafirs* to be constructed by government and development partners. *Hafirs* based on sound feasibility studies and appropriate management systems will ensure the target communities are able to access water and reduce their movement and, as a result, engage in productive activities. Thus the youth who are the mostly engaged in conflict will have an opportunity to take part in vocational and literacy training (Priority 12).

COMPONENT 2: (the “What”)

Results Framework

Programme Level					Project Level		
(1) Strategic Outcomes (National Strategies, PP)⁸	(2) Conflict factors addressed (Outcome level)	(3) Peacebuilding Outcomes (areas of change through PBF investment)	(4) Outcome indicators (type of change)	(5) Outcome Baselines (situation of reference) and final targets	(6) Project Results (Outputs)	(7) Output Indicators (qualitative/ quantitative)	(8) Output Baselines (situation of reference) and final targets
<p>PBSP: To contribute to reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources.</p>	<p>Cattle are the main socio-economic and socio-cultural currency in rural South Sudan and are used as (an ever-escalating) dowry.</p> <p>The pastoralism associated with cattle herding is in itself a source of conflict. As pastoralists migrate with rainfall, they cross the lands of often armed agriculturalists leading to violent clashes and inter-tribal grievances. The water consumption of livestock drains the available water resources available for human consumption exacerbating conflicts over water.</p> <p>In communities under stress from high number of returnees the conflict</p>	<p>Water for livestock and human consumption accessible to target communities.</p> <p>Water related conflict in the target areas reduced.</p> <p>Cattle raiding resulting from long distance migration are reduced.</p> <p>Community stability and peace in the target areas enhanced.</p>	<p>The number of violent incidents in target communities has decreased when compared with baseline data.</p> <p>Target communities confirm that <i>hafirs</i> have eased access to water for their livestock and that this has decreased tension with other water consumers.</p> <p>The number of violent incidents along migratory routes where <i>hafirs</i> have been constructed decreased</p>	<p>Baseline: To be determined by PBF partners.</p> <p>Target: To be determined by PBF partners.</p>	<p>Socio-economic assessment of past and present water harvesting in South Sudan</p> <p>Guideline for water harvesting feasibility study developed</p> <p>Guideline for establishment of community institutions (NRMC) for management of water harvesting facilities</p> <p>Guideline for <i>WH</i> Environmental and Social Impact Assessment</p>	<p>Assessment report</p> <p>WH Feasibility Study Guideline</p> <p>Guideline for community institution building & NRM</p> <p>ESIA Guideline produced</p>	<p>1 Report Baseline=0</p> <p>1 feasibility assessment guidebook Baseline=0</p> <p>1 NRMC guidebook Baseline=0</p> <p>1 ESIA guidebook Baseline=0</p>

	dynamics are further exacerbated as access to water resources are even scarcer.		<p>Target population connects the construction of boreholes and <i>hafirs</i> with the prevalence of peace.</p> <p>Target communities confirm that the construction of <i>hafirs</i> has eased their access to water for human consumption and that tensions with neighbouring communities have been reduced.</p>		<p>Guideline for <i>WH</i> gender analysis and mainstreaming</p> <p>Knowledge of water harvesting enhanced, best practices and lessons learned shared with stakeholders</p> <p>Stakeholders capacity built through training on WH best practices in water harvesting</p>	<p>Gender guideline produced</p> <p>Assessment reports & guidelines shared with relevant institutions</p> <p>Training delivered</p>	<p>1 gender mainstreaming guideline Baseline=0</p> <p>200 copies of 4 guidebooks and the assessment report shared with RSS and State stakeholders</p> <p>Baseline=0</p> <p>Training delivered in four themes (Feasibility study, NRM, ESIA and Gender)</p> <p>Baseline=0</p>
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COMPONENT 3: (the “How”)

Implementation Strategy

a) Target Groups/Key actors and Geographic Criteria

Target Groups/Key actors

With an estimated 11.7 million cattle, 12.4 million goats and 12.1 million sheep, the Republic of South Sudan has the highest livestock per capita ratio in Africa.

Table 1- Livestock Population in South Sudan by State, 2009: FAO Estimates

State	Cattle	Goats	Sheep
Central Equatoria	878,434	1,153,283	1,265,977
Eastern Equatoria	888,278	1,132,541	1,025,297
Jonglei	1,464,671	1,207,214	1,400,758
Unity	1,180,422	1,754,816	1,487,402
Upper Nile	983,027	439,741	640,209
Western Equatoria	675,091	1,153,283	1,169,705
Lakes	1,310,703	1,464,421	1,232,282
Warrap	1,527,837	1,369,005	1,290,045
Western Bhar el Ghazal	1,247,536	1,120,095	1,265,977
Northern Bhar el Ghazal	1,579,160	1,630,361	1,285,231
Total	11,735,159	12,424,760	12,062,883

Source: FAO Livestock Population Estimates, Oct 2009

Cattle are the main socio-economic and socio-cultural currency in rural South Sudan and are used as (ever-escalating) dowry during marriage and seen as a rite of passage for both young men and women. This places enormous pressure on young people to obtain cattle and results in numerous inter-communal cattle raids. In drier parts of South Sudan including Jonglei, Eastern Equatoria and Lakes States, young men are increasingly engaged in violent conflicts including cattle raiding partly due to lack of water and pasture during the dry period. The cycle is exacerbated by the absence of other livelihood or employment opportunities.

Pastoralism associated with cattle herding is in itself a source of conflict. As pastoralists migrate with the rainfall season, they intrude on the lands of other pastoralists and agriculturalists, who are often heavily armed, leading to violent clashes and inter-tribal conflict. The migration of youth in search of water and pasture for livestock can be minimized through provision of livestock water in the dry season, thus enabling the youth to engage in productive and peaceful activities attained through vocational and literacy training (under Priority 12). Providing access to water resources in safe areas within their localities and engaging them in the management of the *hafirs* will provide them with alternative livelihood activities without fear of being intimidated or killed. UNEP's work in Sudan shows that water-harvesting interventions must be planned well in close consultation and in agreement with local communities. Poor planning of such interventions may lead to deterioration of rangeland qualities and may lead to more conflicts as cattle herders tend to keep their cattle in one place more than the carrying capacity of the rangeland. The knowledge generated from this project will assist government and development partners to

better understand and properly plan water harvesting interventions appropriate to the context in South Sudan. The capacity building requirements needed to make water harvesting sustainable will be identified and documented.

Due to the patriarchal nature of the target communities, the involvement of women and girls in *hafir* management and consequently any peace building activities is likely to be marginal as cattle rearing is regarded as the domain of men. However, it is important that women and girls are also actively involved in *hafir* management to ensure that their needs and interests are taken into account and enable them to contribute to peacebuilding activities. As women and girls are responsible for household water, they are particularly affected by lack of access to safe water during the dry season as they must travel long distances to access potable water sources. They are also responsible for caring for those members of their households suffering from water-borne diseases. Inadequate access to safe water and basic sanitation contributes significantly to high incidences of morbidity and mortality, particularly among women and children. The assessment and gender mainstreaming guideline planned under this project will inform design of *hafirs* so that the needs of women and girls are addressed through providing access to potable water within their locations particularly during the dry season. The times spent walking long distances to collect water will be reduced, limiting the dangers the women and girls are exposed to.

Based on assessment of the existing natural resource management practices including water points, the project will develop a comprehensive guide for building local institutions for management of *hafirs* in order to instil a sense of ownership of water harvesting structures by the target communities and ensure sustainability. The NRM guideline to be developed through this project will strengthen existing traditional institutions (comprised of community leaders with a high degree of popular legitimacy) by making them more representative of the various sections of the target communities. This will make them both effective and accountable as well as provide space where every member of the community can participate in water management and ownership. The members of the NRMCs will represent the interests and needs of the various stakeholders and ensure equitable access to and control of the water resources.

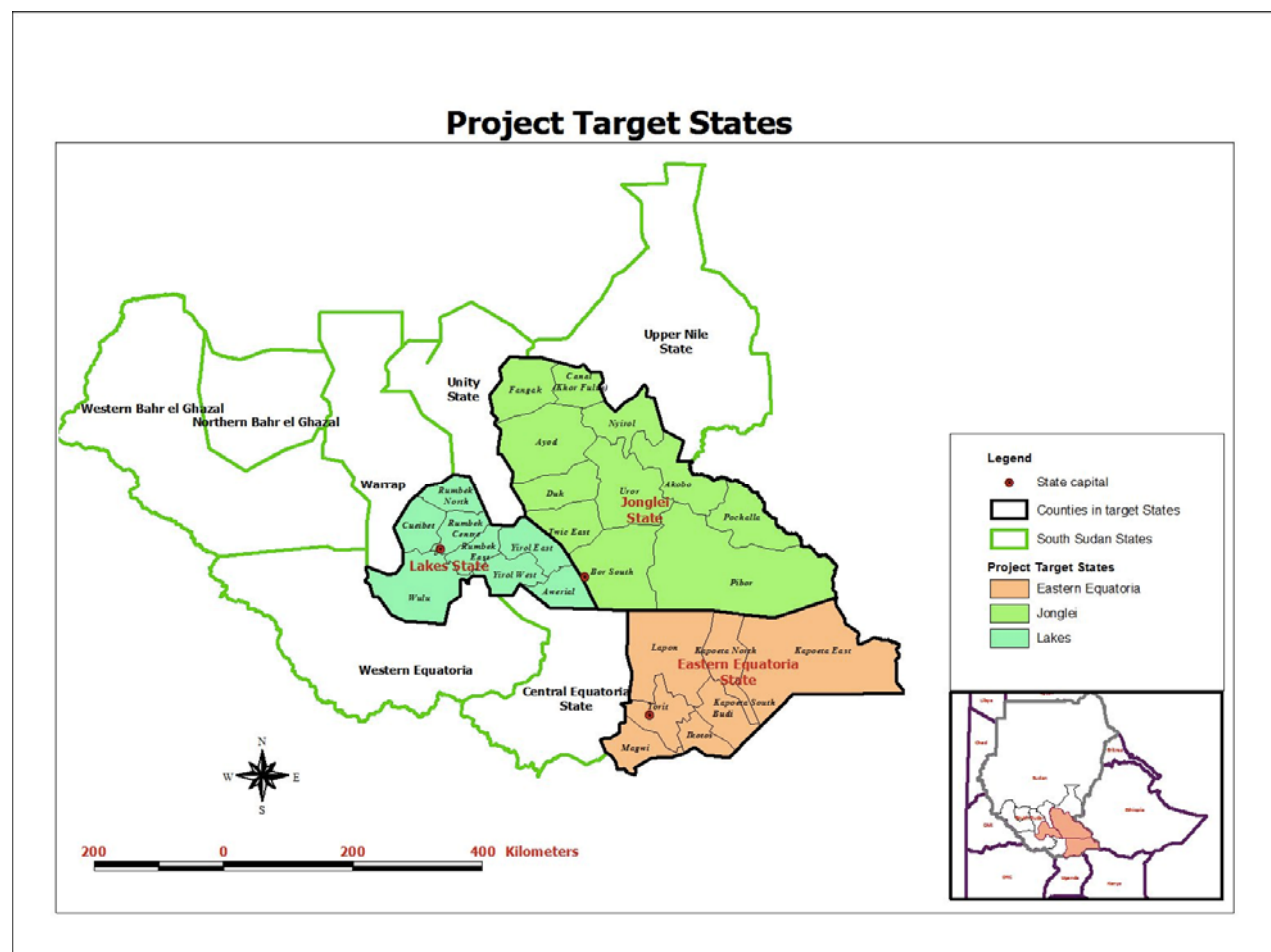
Geographic location of the project

The current “arc of conflict” extending through Jonglei, Lakes and Eastern Equatoria remains the area of South Sudan most vulnerable to internal conflict emanating from competition over natural resources particularly dry season water for livestock. Of these, Jonglei is the most conflict-affected, with dynamics flowing over inter-state boundaries⁹. Jonglei state has witnessed increasing instability, particularly along cattle routes to and from the areas inhabited by the Lou Nuer (Uror, Nyirol and Akobo West areas) and along Pibor-Bor corridors and between Pibor and Akobo areas through a combination of ethnic conflict arising from cattle raiding and constrained access to dry season water sources.

In Lakes State, the most notable conflicts are reported to have been involving the Agar Dinka (Rumbek East), Gok Dinka (Cuibet) Atuat Dinka (Yirol West), Ciec Dinka (Yirol East), Aliab Dinka (along the river Nile and bordering both Yirol East and West counties), and the Jurbel in Wulu County. The Jurluo in Mvolo County (Western Equatoria State) and the Mundari (Terekeka County in Central Equatoria State) have also been affected by conflict emanating from the neighbouring communities mentioned formerly. Eastern Equatoria state also suffers from conflicts arising between communities within the state and outside mainly attributable to the arid land environment with scarce water in the dry season. Some incidents are characterised by violent armed conflicts resulting in the death of innocent people, extensive destruction of homes and livelihood assets, and the displacement of large numbers of people. Therefore, this project targets Jonglei, Lakes and Eastern Equatoria States. These three states are among some in South Sudan where *hafirs* have been built with MDTF, PBF and SSRF resources, thus providing an

⁹PBF Priority Plan South Sudan

opportunity to undertake a comparative analysis of the past and exiting *hafirs*. In addition communities in these states have access to various forms of water harvesting facilities including traditional *hafirs* and ponds.



Gender balance strategy

Gender analysis and development of guidelines on gender mainstreaming will be part of the deliverables of this project. This analysis will inform the project on gender mainstreaming in order to promote equity in access to and control over water resources and benefits emanating from the project for women, men and youth.

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The guideline to be developed for community-based NRMCS will propose recommendations for appropriate gender mix to ensure that the committees comprise of women, men, chiefs, cattle herders, youth, farmers and other stakeholders, all of whom will be involved in the management of water harvesting structures. This will facilitate community participation right from inception to implementation including site selection, construction, protection and maintenance, encouraging ownership of the water harvesting structures. By-laws that will guide the management of the *hafirs* will be included in the NRMCS guideline to allow participation of all stakeholders with different water needs including women. The guide will also outline leadership and gender-awareness training to be provided to NRMCS members to sensitize them on the importance of all the stakeholders on the committees.

The target communities are highly patriarchal. There are cultural limitations on women's movement and household responsibilities, including the perception that livestock is regarded as men's business. The study will assess the roles of women and youth in management and leadership of water points and propose recommendations for enhancing their participation. Specifically the study will propose

approaches for enhancing the roles of women in the management of *hafirs* (Natural Resource Management Committees and Sub-Committees) which will be instrumental in ensuring that women are regarded as equal participants, provide them with opportunities to present their views and interests, and ensure that water management is not dominated by men's priorities alone. FAO and UNEP will work closely with the Ministry of Gender and Social Welfare during the assessment and gender mainstreaming guideline development to ensure synergy with the government policies and strategies and build capacity of the government in the course the assessment and guideline development.

b) Duration

The project will be implemented from January -August 2014. Preparatory work, document review and the development of the methodology for the assessment will be undertaken in early 2014. Field assessments will be conducted from January through April 2014 while analysis and presentation of the findings and publication of guidelines will be completed in August 2014.

c) Approach

The assessment will involve various stakeholders including government, UN, donors, NGOs, private sector and other stakeholders directly and indirectly involved in water harvesting. A series of consultations will be carried out with all stakeholders including members of the local communities (herders, farmers, local chiefs, women, youth groups) and national, state and county officials in the target areas. Their views on the effectiveness of various types of water harvesting facilities in meeting the objectives of livestock and domestic water demands and thereby conflict reduction and peace building will be solicited through participatory methodologies including meetings, interviews and focus group discussions. The organisations involved in development of livestock water facilities will be contacted and their documents reviewed. International experience on water harvesting will be reviewed and lessons learned incorporated into the guidelines to be developed.

The assessment and development of best practice guides will be carried out in close collaboration with the Ministry of Water Resources and Irrigation, Ministry of Environment and Ministry of Gender and Social Welfare. The project will enhance the capacity of collaborating government institutions through skill transfer, training, knowledge sharing during and after the assessment. FAO and UNEP will link with other UN Agencies implementing PBF Priorities 12 and 13 (including UNOPS, UNIDO, UNICEF UNESCO, ILO and UN Women) as well as NGOs operating in the target counties.

Main peace building services and mechanisms (infrastructures for peace)

The assessment and guidelines developed by FAO and UNEP will be instrumental in future design and implementation of sustainable water harvesting interventions, which will contribute to peace building. The agencies involved in the development of *hafirs* will draw on the knowledge generated by the project to improve the effectiveness of their interventions. The best practice guides developed will provide direction on how to mitigate potential negative environmental and social impacts which might result from faulty design and poor management of *hafirs*. Furthermore, the value for money and contribution to peace building from future PBF financed and other donor supported *hafir* development will be improved as a result of the knowledge generated from the project.

The NRMC and ESIA guidelines to be developed will elaborate how to ensure equitable access to water for livestock and domestic use, rehabilitation of the catchment areas, resolution of conflicts that may arise during the use of water harvesting (WH) structures and natural resources, and environmental protection of the WH sites from overgrazing, bush fires, and other risks. This will be achieved through participatory development of by-laws with the target communities to guide the management and operation of the WH structures. The guidelines will indicate how best the existing traditional institutions for conflict resolution will be used as platforms for delivering training on conflict management and peace building. The

development of guidelines will draw heavily from UNEP's work on EIA and peacebuilding works based on NRM conflicts.

PBF and non-PBF projects synergies and complementary

The project will draw from lessons learned by FAO during the implementation the CIDA-funded "*Sustainable Food Security through Community-Based Livelihoods Development and Water Harvesting in South Sudan*" project in Jonglei State, implemented by FAO. The *hafirs* built by FAO and those built through the MDTF, SSRF and other funding sources in target counties will be assessed and evaluated for effectiveness and their contribution towards peace building. In addition the project will also draw on UNEP's work on natural resource based conflict management in South Sudan and globally.

The project will assess the linkages between water harvesting and vocational training activities which are being executed by other UN Agencies. These will include the Pastoral Field Schools (PFS) interventions planned by FAO under PBF Priority 12 and interventions implemented by other partners including UNESCO, ILO, UNIDO and UN Women.

Logic sequencing of project activities

The project will start with desk reviews of the existing documentation on water harvesting, conflict reduction and peace building in South Sudan in preparation for the socio-economic assessment. Consultations with key stakeholders will be conducted before the field assessments and a multi-disciplinary team will be formed in the first two months.

The baseline survey team will be deployed to the three states for mapping the existing water harvesting structures on the basis of which samples would be selected for detailed socio-economic and environmental assessment. Once the type and number of water harvesting structures to be assessed is identified, a detailed assessment of the selected facilities will commence. The benefits and shortcomings of various types of water harvesting facilities will be evaluated using tools developed for that purpose.

Information from the field assessment will be analysed and findings consolidated in a report. Based on the findings of the assessment and previous experience of FAO and UNEP development of guidelines for NRMC, ESIA, Feasibility Study and Gender Mainstreaming will start at the end of the first quarter of 2014. The guidelines will be published and shared with relevant stakeholders including government, donors, UN, NGOs and private sector in the second quarter of 2014.

In addition, training will be organized for key stakeholders engaged in water harvesting in order to build their capacity in planning, implementation and monitoring of water harvesting interventions.

Knowledge sharing including dissemination of the guidelines, assessment reports and publications will be carried out towards the end of the project.

Project communication strategy

FAO and UNEP will share lessons learnt with partner agencies and government and ensure that analysis generated from the project is used to inform the work of other stakeholders involved in similar work. Additionally, the documents produced will be shared with stakeholders at both national and state levels. Additionally FAO and UNEP will link with other UN Agencies benefiting from the PBF during the course of assessment and knowledge sharing.

Through visibility and communication materials (publications, press releases, print and electronic media, and workshops) donors, government and the wider public will be informed of the right approaches for water harvesting and best practices in management of water harvesting facilities aimed at conflict reduction and peace building.

Cost effectiveness

The assessments planned under this project will provide valuable information on which water harvesting options that are cost effective to meet water demands and in turn contribute to peace building. The guidelines to be developed will provide direction on suitable *hafir* designs and management approaches for long-term use and sustained conflict reduction.

d) Sustainability and Catalytic effect

Sustainability

The guideline for NRMCS will elaborate approaches for sustained management, maintenance and protection of the *hafirs*. Ways and means of conflict mitigation and resolution will be recommended. Training needs for communities and relevant government personnel will cover operation and maintenance of the *hafirs*, conflict resolution, environmental management and conservation, and gender to ensure effective management of the *hafirs*. In addition the ESIA guideline will make sure future *hafir* designs and construction complies with environmental and social standards to ensure sustained use. Ministry of Environment and other line ministries responsible for environmental protection will be engaged in the project process and implementation.

Catalytic effect

Construction of *hafirs* based on a sound assessment and feasibility study will decrease movement of communities (particularly young people) in search of water and grazing thus reducing the incidences of conflict. FAO and UNEP will coordinate with other partners carrying out activities under priority 12 to ensure that the youth receive literacy and vocational training to enable them to engage in economic activities.

The communities living in the target areas are expected to benefit from the assessment through improved and cost effective water harvesting interventions by government and development partners.

The NRMCS, Gender and ESIA guidelines will support equitable access to and control over the water harvesting structures, their management, maintenance and protection as well as the resolution of any conflicts that might arise. The NRMCS and ESIA guidelines will provide particular guidance to ensuring rotational grazing to reduce the negative impacts on the rangelands close to *hafirs* and other water points.

The environment in the target locations will thus become conducive to government and development partners, enabling the provision of social and economic services such as health, education, and agricultural extension services to improve the livelihoods of the local population.

Fund raising and scale up

FAO and UNEP in collaboration with the government counterparts will present the findings of the assessment to stakeholders including donors in relevant workshops and seminars. The aim of the presenting the findings in various workshops and seminars will be to stimulate discussion on livelihoods and policy issues related to water harvesting and peacebuilding. This will also raise awareness among stakeholders (government, development partners, civil society and the public) on effective approaches for successful water harvesting interventions that will contribute to increased livelihoods and peacebuilding. It is expected that this will empower donors and government make informed decisions regarding the role of *hafirs* in peace building, attracting additional funds to scale up appropriate and cost effective water harvesting activities.

e) Project Activities:

Project Output 1: Socio-economic assessment and analysis of water harvesting facilities for enhanced impacts on conflict reduction and peace building

Planned Activity	Inputs	Budget	Responsible Party for mobilizing inputs
1. Mapping and characterization of the existing water harvesting structures in the target states and determination of samples for comprehensive socio-economic and environmental assessment.	Assessment	57,640	FAO Project Coordinator
2. Socio-economic and environmental assessment of selected water harvesting structures built by government and development partners towards conflict reduction and peace building	Assessment	157,560	FAO and UNEP Project Coordinators
Sub-total		215,200	

Project Output 2: Guidelines developed for effective water harvesting project design and management

Planned Activity	Inputs	Budget	Responsible Party for mobilizing inputs
1. Guideline for water harvesting feasibility study	Technical Assistance	15,000	FAO Project Coordinator
2. Guideline for Environmental and Social Impact Assessment of water harvesting facilities	Technical Assistance	15,000	UNEP Project Coordinator
3. Guideline for Gender Mainstreaming in water harvesting interventions	Technical Assistance	18,000	FAO Project Coordinator
4. Guideline for formation of Natural Resource Management Committees for management of water harvesting facilities	Technical Assistance	5,500	FAO Project Coordinators
Sub-total		53,500	

Project Output 3: Stakeholders' capacity built for effective planning and implementation of water harvesting projects

Planned Activity	Inputs	Budget	Responsible Party for mobilizing inputs
1. Training of government and non-government stakeholders on best practice guidelines (NRM, ESIA, Feasibility Assessment and Gender Mainstreaming)	Training	51,568	FAO & UNEP Project Coordinator
Sub-total			

Project Output 4: Knowledge management on water harvesting enhanced; best practices and lessons learned shared with stakeholders

Planned Activity	Inputs	Budget	Responsible Party for mobilizing inputs
1. Publication and dissemination of the lessons learned and best practices.	Publication & dissemination	47,650	UNEP Project Coordinator
Sub-total			

f) Analysis of risks and assumptions

The overall vulnerability of the country to socio-political and economic risks mainly related to relationship with the government Sudan could impact peace and security in South Sudan. One of the main risks to implementation of the project is security threats emanating from communal conflicts which may hinder the movement of personnel to target locations, particularly in Jonglei. It is therefore assumed that there will be no

major inter and intra-ethnic conflict and rebel militia operation restricting the movement of personnel and equipment during project implementation. The local security situation will be monitored using information from UNDSS, NGOs and UN Agencies operating in the target locations.

Extreme weather conditions such as an extended period of rainfall causing excess flooding or extended drought leading to mass displacement could hinder project implementation. FAO and UNEP will ensure that most activities requiring field missions are completed during the dry period.

It is assumed that government counterparts at the national and state levels as well as target communities will cooperate and facilitate execution of the project in their locations. FAO and UNEP will ensure stakeholders, including community and government representatives, participate in the planning and execution of the project.

Risks/Assumptions	Mitigating Strategy
Political and security: Communal conflicts impeding movement of project personnel.	Liaise with UNDSS and government security organs to monitor communal conflicts.
Socio-economic: Continued austerity leading to lack of resources to carry on project interventions.	Project activities will not depend on government budget. Strengthen community capacity to carry on project activities with little or no dependence on government budget.
Managerial: Lack of cooperation from local government and community during assessments.	Involve government line departments in the assessment.

g) Budget

PBF PROJECT BUDGET			
CATEGORIES	FAO	UNEP	Total
1. Staff and other personnel	196,000	78,500	274,500
1.1 FAO/UNEP Staff	80,000	37,000	117,000
1.2 Consultants	116,000	41,500	157,500
2. Supplies, Commodities, Materials (Communications equipment and stationary)	5,500	43,000	48,500
3. Equipment, Vehicles, and Furniture (including Depreciation)	-	-	-
4. Contractual services	-	-	-
5. Travel and training	93,524	30,744	124,268
5.1 Travel (DSA, Tickets)	77,524	21,744	94,268
5.2 Training	21,000	9,000	30,000
6. Transfers and Grants to Counterparts	-	-	-

7. General Operating and other Direct Costs	51,072	22,650	73,722
Sub-Total Project Costs	346,096	174,894	520,990
8. Indirect Support Costs (7%)	24,227	12,242	36,469
TOTAL	370,323	187,136	557,459

COMPONENT 4: (The “How”)

a) Management Arrangements:

1. Project Coordination

A Technical Committee comprised of PBF Priority 12 and 13 partners will ensure coordination between the various PBF implementing partners. FAO and UNEP will establish linkage with UNOPS, UNICEF and other PBF recipients in order to create synergy between PBF Priority 13 interventions. Experiences gained from the previous FAO, UNDP and UNOPS *hafir* interventions will feed into the proposed project. The project will also link with the vocational and skills training component proposed for implementation by ILO and UNIDO under PBF Priority 12. FAO and UNEP will also maintain linkage with government institutions mandated with water resource development, environmental protection and management. A technical team comprised of FAO, UNEP, Ministry of Water Resources and Irrigation, Ministry of Environment and Ministry of Gender and Social Welfare will be formed to provide technical support and ensure synergies with government policies and strategies and international best practices.

2. Project Implementation modalities

The United Nations Peace Building Fund for South Sudan Steering Committee (SC) will be established to oversee and coordinate the operations of the UN Peace Building Fund. The SC will provide strategic guidance and oversight as well as make decisions on fund allocation and will be responsible for ensuring that earmarked funds allocations alignment with the UN Peace Building Support Plan.

The project will be managed by the Project Coordinator (Annex F - TOR for Project Coordinator) based in the Land, Water and Agriculture Department within FAO, South Sudan. The FAO coordinator will be responsible for the overall implementation and management of the project. There will be a counterpart in UNEP who will be coordinating the activities to be implemented by UNEP and liaising with FAO. At the field level, project implementation will be supported by a FAO Field Officers and Assistants based in the target states.

The FAO project coordinator with support from the UNEP counterpart will mobilize the required technical support for implementation of the project. FAO and UNEP HQs will provide overall technical support and backstopping for the assessment and guideline development to ensure compliance with the required standards. The FAO Communications Officer will support the project team in effectively communicating information on the project to the wider public.

3. Capacity of RUNOs

Currently FAO is implementing the CIDA funded *Sustainable Food Security through Community based Livelihoods Development and Water Harvesting project* in Jonglei and Upper Nile states. The water harvesting component targets Uror and Nyirol counties where the construction of four *hafirs* is underway and four community and two County NRMCs have been established.

FAO plays the leading role in Food Security and Livelihoods Sector coordination as part of the UN Work Plan and the 2012-2013 United Nations Development Assistance Framework (UNDAF) for South Sudan. The UNDAF's outcomes are designed to define the UNCT's contribution to the achievement of the government's SSDP pillar objectives including (1) core governance and civil service functions are established and operational, (2) chronic food insecurity is reduced and household incomes increased, (3) key service delivery systems are in place, laying the ground work for increased demand, (4) violence is reduced and community security improves, and (5) access to justice and the rule of law improves. The proposed project is in line with these objectives, in particular contributing to the UNDAF outcomes nos. 2 and 4.

Moreover, from 2005 to 2007, FAO provided technical assistance to secure land rights, address land and property dispute resolutions, and negotiate consensual land management on a pilot basis in northern and southern Sudan. The proposed intervention in Jonglei will benefit from the experiences and lesson learnt from this, particularly conflict resolution strategies for natural resource management. UNEP's implementation of a pilot community forestry project in the states of Central and Eastern Equatoria and the lessons learnt will contribute to local engagement in NRM and formation of NRMCS in areas targeted for water harvesting interventions.

In addition, over the past four years, FAO has successfully implemented a number of Food Security programmes, notably the EU-funded Sudan Institutional Capacity Programme: Food Security Information for Action (SIFSIA) which successfully built the capacity of key South Sudanese institutions in order to establish and sustain an information-based decision making system. This system provides policy and strategic guidance to the rural sector. FAO also implemented the EU-funded Sudan Productive Capacity Recovery Programme (SPCRP) which significantly strengthened the capacities of state government and non-state actors operating in the agriculture sector.

UNEP's long engagement in environmental impact assessments in post-conflict countries in Sudan, Sierra Leone, DRC, Nigeria, Kosovo, Haitai, Lebanon, Afghanistan has enormous experience in environmental assessments, developing guidelines and capacity building. In addition, UNEP has also excelled in areas of peacebuilding works in conflict areas particularly in relation to NRM related conflicts.

b) Monitoring and evaluation:

The project's monitoring, reporting and evaluation plan will be based on the PBF Results Framework set out above. The performance of the project will be monitored using the Indicator Based Performance Assessment format (Annex E).

The Project Coordinator with support from UNEP counterpart will be responsible for documenting and providing quarterly updates on the progress of project activities. Half yearly progress reports and a final project report will be submitted at the end of the project. The information generated from the on-going FAO-Tufts University Livelihoods Impact Assessment will provide additional information on the impacts *hafirs* on livelihoods, conflict reduction and community stability.

COMPONENT 5: Annexes

Annex A:

Donor Mapping in Peacebuilding Strategic Outcome Area/s

Strategic Outcome Area	Key Institution	Key Projects/Activities	Duration of projects/activities	Budget in \$
To contribute to reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources.	FAO/CIDA	1. Building local institutions for effective management of <i>hafirs</i> in Jonglei 2. Feasibility study and construction of four <i>hafirs</i> in Jonglei	3 years (March 2011-March 2014)	3.1 million
To contribute to reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources. “Revitalise the economy and generate immediate peace dividends” (Re)- establishment of essential administrative services”.	UNOPS/PBF	3. Construction of boreholes and <i>hafirs</i> in Jonglei	2012-2013	5.0 million

Annex B:

Mapping of critical gaps (UN and International budgets)

Peace building Outcome Area	Ongoing Projects/Activities in Outcome Areas with a direct and demonstrable link to PB and organization responsible for its implementation (NOT covered by other funding sources)	Description of the area facing a gap and entity of the funding gap
To contribute to reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources.	Socio-economic assessment of the effectiveness of past and present water harvesting facilities (<i>hafirs</i>) supported by PBF, donors and government and guide on effective <i>hafir</i> development in South Sudan (FAO)	US\$ 580,304

Annex C:

Mapping of UN Recipient Organizations

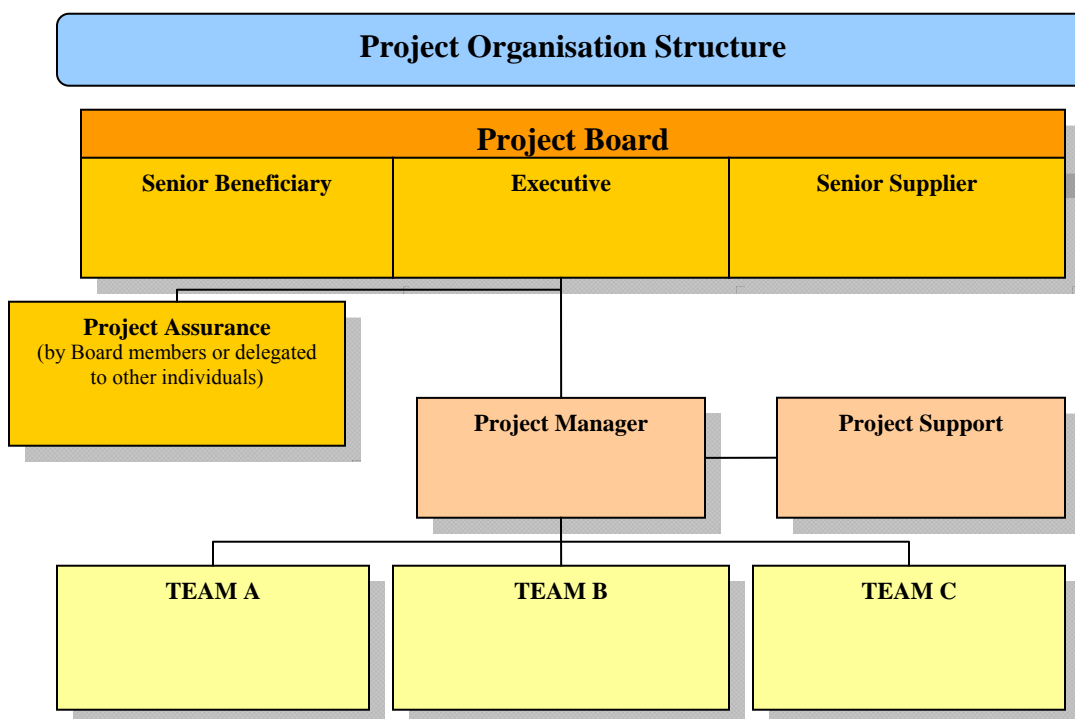
Please include exhaustive information of annual budgets of each recipient agency (RUNOs) in the targeted outcome area.

UN Agency	Key Sectors(top five or fewer)	Annual Budget (last year) per	Annual Budget (this year) per	Projection of Annual Budget	2012 Annual Delivery Rate
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		Recipient Organization in key sectors ¹⁰	Recipient Organization in key sectors ¹¹	(next year) per Recipient Organization in key sectors	(Agency Total)
FAO	Reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources	1) 2012 (Million 2.0 million)	1) 2013: (1.0 million)	2014 (0.5million)	2012 budget: US\$ 20.0 million

Annex D

Suggested Organigram to be used for the Project's Joint Steering Committee or a specific ad hoc Project Board, if the project requires one.



ANNEX E: INDICATOR BASED PERFORMANCE ASSESSMENT

	Performance Indicators	Indicator	Planned Indicator	Targets
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¹⁰If UNDP is one of the Recipient Agencies, specific information shall be included on whether the country is benefiting of BCPR Thematic Trust Fund and if yes, the amounts allocated and the funding gaps need to be specified

¹¹ If UNDP is one of the Recipient Agencies, specific information shall be included on whether the country is benefiting of BCPR Thematic Trust Fund and if yes, the amounts allocated and the funding gaps need to be specified

		Baselines	Targets	actually achieved
Outcome 1¹² To contribute to a reduction in competition over scarce resources, implement measures to create economic opportunities and improve access to resources.	Indicator Target communities confirm that the <i>hafirs</i> have eased access to water for their livestock and that this has decreased tension with other water consumers.			
Output 1 Socio-economic assessment and analysis of water harvesting facilities for enhanced impacts on conflict reduction and peace building	Indicator 1.1. Socio economic study on past and present water harvesting interventions undertaken.	0	1 Assessment report	
Output 2 Guidelines developed for effective water harvesting project design and management	Best practice guidebooks developed on four thematic areas	0	- 4 guidebooks produced - Feasibility study guide - NRMC guide ESIA guide - Gender mainstreaming guide	
Output 3 Stakeholders' capacity built for effective planning and implementation of water harvesting project	Indicator 3.1. Training delivered to RSS and state stakeholders on water harvesting best practices	0	Training delivered on 4 thematic areas for 30 participants from RSS and States	
Output 4 Knowledge management on water harvesting enhanced, best practices and lessons learned shared with stakeholders.	Indicator 4.2 Assessment reports and guidebooks published and disseminated	0	-200 copies of socio-economic assessment & -200 copies of each of the four guidebooks disseminated to RSS and State stakeholders	

ANNEX F: TERMS OF REFERENCE FOR FAO/UNEP PBF PROJECT COORDINATORS

Under the general supervision of the FAO and UNEP Representatives in South Sudan, technical support from the County Office and Head Quarters, the Project Coordinators will be responsible for the overall planning and implementation of the PBF project.

More specifically, the Project Coordinator will perform the following duties and responsibilities:

- Prepare a detailed work plan and budget for project implementation;

¹²Either country relevant (from the Priority Plan or Project Document) or PMP specific

- Supervise the field assessment teams implementing the project, including administration, communication, and field operations;
- Provide technical guidance to the technical team;
- Coordinate and mobilize a multi-disciplinary team to ensure the quality and timeliness of technical assistance including FAO & UNEP HQ technical backstopping and deployment of qualified consultants;
- Ensure support to the identification and implementation of training;
- Organize and mobilize inputs required for timely and effective project implementation;
- Establish and maintain effective links PBF Joint Steering Committee and the Secretariat;
- Establish and maintain linkage with relevant government, national and international partners involved in the planning, implementation and monitoring of the project;
- Maintain effective linkage and coordination with other PBF partners implementing projects similar target areas;
- Participate in PBF related coordination meetings;
- Network with public, private, non-governmental, research, and other organization dealing with water harvesting, particularly in South Sudan;
- Monitor progress on implementation in relation to work plan, in particular timeliness, achievement of project objectives and impact, and implement corrective measures when needed;
- Ensure the preparation of reports in line with PBF reporting guideline;
- Ensure proper communication and visibility of the project;
- Perform other related duties as required.