

## **Annex 2: Report**

### **Sustainable Natural Resources Management in Sudan: Lessons and Priorities for Development**

**Held at the World Bank, Washington, D.C May 31, 2018**

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**Adama Coulibaly**, Resident Representative, World Bank Sudan Country Office and **Nicole Klingen**, Sudan Country Program Coordinator in their opening remarks gave an insight into the World Bank supported environment and natural resources (ENR) portfolio in Sudan. They reiterated that natural resources and their sustainable management in a landscape approach is critical to eradicating poverty and promoting shared prosperity and that this sector is strategically important for agricultural productivity, livelihoods, climate resilience, poverty reduction among other development priorities. It is also central agenda in the sub-region as countries develop resilient water resources management. It is pertinent to find best ways to effectively and sustainably use the resources that exist in the country to improve the lives of the people in a sustainable and equitable manner. For this, sharing more ideas and technologies in the regional setting for wider dissemination of experiences and uptake is the ideal way forward.

In his remarks, **H.E Hassan Abdel-Gadir Hilal**, Minister of Environment, Natural Resources and Physical Development added that new technologies and cutting-edge approaches are needed for management of land and water resources to combat desertification and address plethora of issues around livelihood, health and nutrition arising from poor management of drylands. **H.E Abdalla Suleiman Abdalla**, the newly appointed Minister of Agriculture and Forestry reinforced the value of World Bank's partnership on sustainable development and recommended to identify and scale up best practices in integrated agriculture-forest management.

**Paola Agostini**, Lead Environmental Economist and Global Lead for Forest, Landscapes and Ecosystems presented an overview of the World Bank's approach to dryland restoration. She used case studies from China, Ethiopian delegates' visit to China, and The Great Green Wall, examples of restoration through climate change adaptation projects and demonstrated seven interventions to enhance resilience in dryland regions (refer to powerpoint). Food security issues have been also resolved through integrated dryland restoration in Rwanda, where the income of farmers also increased by five times in 5 years through concerted efforts of multiple stakeholders. In sum, the WB projects demonstrate that policy, integrated planning and physical action can help restore the natural wealth of nations even in the most degraded landscapes. Her presentation also showed that silvopastoral systems, using examples from Latin America and Caribbean region, can address the dual goal of landscape restoration and climate change mitigation. While the case studies/examples offer many options that can fit different microclimates and ecosystems, there is a need for more research for finding solutions to systemic, public finance, and to private finance barriers to financing for restoration. Partnership with private sector is very much feasible and can help achieve the twin goals.

**Sayeda Khalil**, Program Coordinator, REDD+ Readiness project in Sudan, in her presentation highlighted the key achievements of the Readiness Project including the National Forest Inventory (NFI) and the National Forest Monitoring System which provide the baseline for funding allocation to forest and pasture, and the REDD+ results based payment. Building the needed capacity through partnerships, Sudan REDD+ Readiness is working with the FAO, the Sudan Conservation Society, and the World Resources Institute, the latter to support development of a landscape restoration framework for the country. Sudan would need to secure additional finance through leveraging private sector and public-sector funds to implement the priority restoration interventions in the three key hotspots. Sudan is a strategic country for piloting and scaling up climate change mitigation approaches through restoration interventions in diverse forest and terrestrial ecosystems including the Gum Arabica, Jabal Mara forest, mangroves and riverine forests.

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**Dora Cudjoe, Senior Environmental Specialist**, ENR GP (co-TTL SSNRMP & Sudan REDD Readiness) highlighted the comprehensive approach adopted for environment and natural resources management in Sudan; priority given to communities as drivers of change; and efforts towards addressing gender barriers through capacity training and enabling access to project benefits.

**Tracy Hart**, Senior Environmental Specialist (co-TTL SSNRMP & Sudan REDD Readiness) added that community-led management of buffer areas is as effective as Protected Areas (PAs) management if they have secured ownership of buffer resources to support their livelihood and feed their livestock. Experience with Environmental Impact Assessments on health, nutrition, displacements projects show 'landscape restoration' is a key element in most interventions. Weaving the project agenda into the overall landscape in an inclusive manner ensures long-term effectiveness. Sudan, like other Sahelian countries, is rich in resources, despite the common perception. It is important to take stock of what is working and not working, in terms of technology and in partnerships with development organizations, with private sector, civil society, farmers; and to identify and introduce new technologies including for water harvesting, among others.

The additional funding for these projects is meant to ensure all approaches and national strategies work together. Private sector is open to taking risks if there is some support from public sector. The risk-taking appetite of private sector interested to pilot new approaches and technologies is evident in Sudan's recent project funded by public sector. Sudan remains open for business with growing opportunities for the private sector to learn and capitalize on.

**H.E Ibrahim El-Dukheri**, Director General, Arab Organization for Agricultural Development stressed the key issues for Sudan as preservation of environment and the reversal of degradation. There is hope, environmental restoration is doable if the right triggers are pulled: these are the involvement and alignment of community priorities, development partners and technical specialists. In Sudan, there is a clear roadmap, which could make it an example throughout the broader Arab region. On the ground, the question remains on how to move from pilots to investments at scale, unlocking the profit-environment-degradation nexus. In the global efforts to achieve the SDGs, the value added that the AOAD can contribute is to enhance profitability of the indigenous knowledge.

**Mohamed Bakarr, Lead Environmental Specialist, Global Environmental Facility** informed that in 2014, the GEF was working on the vision of the Great Green Wall, exploring the opportunity to participate in such an endeavor. At the core was the thought that desertification can affect all ecosystems, hence the need to combining global environment and livelihoods in one joint strategy. Contrary to the mainstream representation of the program as a sort of 'tree-centered biological effort', the vision remains people-centered, namely transforming the land to allow land users to keep managing it for multiple benefits activities in a sustainable manner. Results to date including from Sudan certify that it was a good decision to join. The experience in Sudan has shown that WB partnership must be scaled up to reach more beneficiaries: a mix of financing is needed to connect all successful pilots, beyond GEF financing, by bringing together other partners and investors.

**Tarek Ahmed**, Program Manager, International Fund for Agricultural Development informed that as strong partner of Sudan since 1979, IFAD has implemented over 20 projects serving over 1,600,000 rural households addressing issues of sustainable resource management, community resilience, livestock and strong capacity building. Sudan's strategy is built on two main pillars: agriculture and livestock, but natural resources management (NRM) is built in both pillars. Currently there are 5 ongoing projects, and all have natural resource management components, encompassing afforestation, reforestation, demarcation, agroforestry, capacity building, technical training and more. A new project is under preparation aiming to map all NRM activities of

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ongoing projects and scale them up in the same areas, targeting specifically women and youth. The final size of the operation yet to be defined, it is likely to have a program (rather than project) scope, with a focus on community organizations and at the cluster level. To maximize the efforts, it is crucial to maintain and expand partnerships with the WB and the other Rome-based agencies (FAO, WFP), leveraging mutual expertise to deliver better and bigger results.

**Dennis Garrity**, World Agroforestry Center advised that in setting up its ambitious national restoration plan, Sudan can learn greatly from Niger's experience in the transforming its landscape, given similar agro-ecological condition. In Niger, 2 million people restored degraded farmlands and community lands through farmer-managed natural regeneration. Given the very scarce resources available, low-cost solutions were essential for success, and these proved to be effective due to the community – based approach adopted. IFAD was instrumental to mobilizing a 'viral' approach in Niger, whereby a million hectares were regenerated using both indigenous tree species and acacia species. For Sudan, the question is what types of interventions can build the same community mobilization as seen in Niger? The conversation has already started across ministries, and the common vision such as being advocated in a national landscape restoration framework could be a starting point.

**Dr. Abdelmagid Abdelgadir**, Export Chamber of Sudan (representing Chair Mr. Mahgoub) informed that private sector has planted over 30 million acacia (seyal) trees in partnership with the Forest National Corporation, Sudan. However, private sector's role is still very small due to the lack of support, regulations and policies that support sustained private investments. The WB's proactive support in creating the enabling environment, secured land tenure for gum Arabic tree plantation, provision and access to new technology to improve tree productivity and harvesting techniques would be crucial. As a result of the embargo, farmers in Sudan are mainly using traditional tools and transport systems like donkeys and camels, greatly limiting the production capacity of the country Gum Arabic sector. He flagged the issue of crop loss to migratory birds. Every year, Sudan farmers lose about 20% of produce, an issue that would require support from international community to help vulnerable farmers in Sudan.

**Session on Sudan's Gum Arabic Treasure and Implications for Sustainable Development.** The agenda also covered commercial aspects of landscape restoration, especially Gum Arabic due to its strategic relevance for exports and foreign exchange earnings. **Mark Cackler**, Practice Manager, Agriculture Global Practice, World Bank moderated the session and emphasized the importance of Gum Arabic as a food product, which is widely used but least known/heard of by the consumers. He mentioned the Bank's multi donor trust funded project for this sector that closed in 2013.

**Fatima Ramly, National Coordinator for Gum Arabic Producers Associations (GAPAs).** Small producers form a core of the supply chain and as chair she works with over 3,000 GAPAs. Sudan currently accounts for 52% of global gum Arabic market, a drop from over 70% in 2009. Fatima outlined some factors accounting for the reduction – desertification, land degradation, prolonged drought, fires; access to market, poor technology. Water is a big problem in the gum belt. Women travel as far as 10 kilometers away from the Gum Arabic forest sites to fetch water. Drought and fire pose major risk to Gum Arabic trees, which further affects the supply of fodder and ground water. The region is becoming increasingly vulnerable to climate change and new technologies and measures to reduce the vulnerability of the Gum Arabic sector and the communities dependent on its production.

As recommendations: (i) Identify and align corporate social responsibility (CSR activities) of Gum Arabic sourcing companies with programs that alleviate poor living standards (access to water) of producer farmers. Migration of men to other income generating activities means that women play a major role in gum production cycle,

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tapping and collection, seedling production, etc. (ii) Improving the skills of women and equipping them as risk managers is key to sustaining productivity of this commodity for Sudan. (iii) Review the entire supply chain and enable policy reforms and other interventions such as certification of organic Gum Arabic, to increase the value to producers and tappers.

**Nora Behhramouni, Senior Forest Officer (Drylands), FAO** strongly recommended to factor in issues of land tenure; holistically look at the agro-silvopastoral systems, products and services as opposed to just propagating the Gum tree (Acacia Senegal) to support and build resilient community livelihoods; and enhance local value addition to Gum Arabic. She outlined FAO's active role in supporting producer gum countries notably:

- Italian Cooperation-funded Acacia operation project (2003-2007) benefiting 6 countries including Sudan. In Sudan, the project supported the restoration of 4700 ha of A. Senegal and A. seyal using mechanized and traditional water harvesting techniques
- support to NGARA (the Network of Natural Gums and Resins in Africa) involving 15 countries, and capacity enhancement of national gum producer associations in the 6 countries
- support to restore the Acacia based agrosilvopastoral systems through the Action Against Desertification project in support of the Great Green Wall Initiative
- currently developing jointly with the FNC and partners, the GAMS – “Gum for Adaptation and Mitigation in Sudan: Enhancing adaptive capacity of local communities and restoring carbon sink potential of the Gum Arabic belt, expanding Africa's Great Green Wall”, for submission to the Green Climate Fund

She further provided the following highlights for restoring the Gum Arabic landscape

- technology and innovation: mechanized water harvesting technique (Delfino, Vallerani)
- mobilization, training and social protection: organization of national GAPAs and training on gum tapping and quality control benefiting men and women gum harvesters (modules available for the training building on the national expertise)
- policies and framework: the NGARA Framework of Priorities 2017-2030 takes into account all the issues that need to be addressed from restoration, sustainable production of gum and resins resources, processing, gum quality and value addition in gum producing countries, links to markets, marketing and increasing investment, enabling policies and legal frameworks, Research, coordination, etc.
- assessment and monitoring: FAO devised a method for assessing and monitoring (see the methodology explained)
- large scale restoration model: developed through FAO's work on the Great Green Wall, in similar areas, looks at restoration: from seed/land to end product/market: quality seed (use and traceability of quality and diversity of seeds from local species (trees, shrubs and fodder species) for building resilience of habitats and livelihoods; looking at pastoral and agriculture development; and
- diversification: developing small scale enterprises on Non-wood forest products

**Mathieu Dondain, Director of Business Development, Nexira, France** informed that the true value-addition of any intervention in Gum Arabic forest of Sudan is to ensure that the right trade value to go to the producers. This would require building capacities at various levels in the supply chain to take this work to scale. Gum Arabic is part of all sorts of diets and food products across the globe and the demand for this product as a natural, organic and healthy ingredient is here to stay. It is important to provide more support to farmers to improve land management and to develop sustainable agriculture thereby improving incomes by better processing and selling their production outputs. Access to water is certainly also a priority intervention to be integrated into support activities for Gum Arabic farmers. These efforts could be supported and coordinated by NGO experts,

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such as SOS Sahel for example. A very important part to guarantee the business sustainability of the Gum Arabic industry is to improve the application of trade regulations between Sudan and the rest of the world which remain difficult, despite the embargo lift.

Lastly, it would be essential to loop in consumer awareness in deriving lasting solutions to sustainable sourcing of Gum Arabic.