

# **RAISE PLUS-LIMITED SCOPE OF WORK**

## **FINAL REPORT**

### **EVALUATION OF USAID/AGRICULTURE AND NATURAL RESOURCES MANAGEMENT PROGRAM “WULA NAFAA”**



**USAID**  
FROM THE AMERICAN PEOPLE

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**EVALUATION OF USAID/AGRICULTURE AND NATURAL RESOURCES  
MANAGEMENT PROGRAM “WULA NAFAA”  
FINAL REPORT**

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## LIST OF ACRONYMS

AG/NR	Agricultural and Natural Resources (USAID/Senegal name for Wula Nafaa project)
BDS	Business Development Services
BFC	Baobab Fruit Company
BIC	Bureau Inventaire et Cartographie
CBO	Community Based Organization
CF	Classified Forest
CIVD	Inter-Village Development Council and Inter-Village Development and Management Council (Comite Inter Villageois de Development)
CLUSA	Cooperative League of the United States of America
CMS	Credit Mutuel du Senegal
ComF	Community Forest
CPA	Controlled Production Areas
CR	Communauté rurale and rural council
CVD	Village Development Council and Village Development and Management Council
CVGD	Same as CVD
CSE	Centre de Suivi Ecologique (Ecological Monitoring Center)
EIG	Economic Interest Groups
EROS	Earth Resources Observation Satellite
FAO	United Nations Food and Agriculture Organization
<i>feux précoces</i>	Controlled burns early in the season to reduce risk of major forest fires
FFN	National Forestry Fund (Fonds Forestier National)
FS	Forest Service of the Government of Senegal (Direction des Eaux et Forets, Chasse et Conservation des sols)
GERME	Better Manage Your Enterprise (Gérer Mieux Votre Entreprise)
GIE	Economic Interest Group or Producer Group (Groupement d'Interet Economique)
GIS	Geographic Information System
GOS	Government of Senegal
GPF	Groupement de producteurs feminins = women producer group
GPL	Groupement de producteurs de laalo = Karaya gum producers group
HACCP	Hazard Analysis and Critical Control Point (food safety system)
IREF	Regional Inspection of the Forestry Department (Inspection Regionales des Eaux et Forets)
IRG	International Resources Group
LC	Local Convention (Convention Locale)
M&E	Monitoring and Evaluation
MEPN	Ministère de l'Environnement et de la Protection de la Nature (Ministry for the Environment and Protection of Nature)
MERA	Monitoring, Evaluation, Restitution and Analysis
NR	Natural Resources
NRM	Natural Resources Management
NTA	Non-Traditional Agriculture
PG	Producer Groups
PMP	Progress Monitoring Plan
RC	Rural Community or Rural Council (Conseil Rurale or Communaute Rurale)

RegC	Regional Council
R&R	Rights and Responsibilities project component
SAGIC	USAID/Senegal project: Support for Accelerated Growth and Increased Competitiveness for Trade
USAID	United States Agency for International Development
USFS	United States Forest Service
WG	Women's Group
WN	Wula Nafaa (Programme AG/GRN)

## ACKNOWLEDGEMENTS

The evaluation team was provided with excellent support prior to and during the team's three weeks of meetings and interviews in Dakar and across a wide swath of rural Senegal. We would like to thank Peter Trenchard and Aminata Badiane of USAID/Senegal for providing us with background materials prior to our field work in Senegal, briefings and basic orientation in Dakar regarding Wula Nafaa and its importance within the USAID/Senegal portfolio, suggestions regarding our itinerary and list of interviews, and finally hosting a de-briefing presentation for USAID, Wula Nafaa and Government of Senegal officials at USAID/Senegal.

In addition, the team would like to thank IRG Chief of Party, John Heermans, Deputy Project Director, Abdou Sene, and the entire Wula Nafaa project implementation team for organizing our meeting and travel schedules, and for making themselves available for lengthy evaluation team interviews and informal discussions. The Wula Nafaa team also provided logistic support, especially transportation, to the evaluation team in Dakar and in the field. The evaluation team would like to commend the three drivers who demonstrated excellent driving skills over very difficult roads (and tracks) while always remaining courteous and willing to answer questions about local landmarks and cultures posed by the evaluation team.

Finally, the team would like to provide special thanks to Wula Nafaa National Coordinator, Baidy Ba, who took primary responsibility for the team's schedule, traveled with the team and made himself available as needed for the full three weeks of the teams' work in Senegal. Mr. Ba's energy, in-depth knowledge of the project and the operations of the Government of Senegal, along with his good humor, made him a perfect companion and resource for the evaluation team's work. The team would also like to thank economist Mactar Gueye of the Ministry of Environment and Nature Protection who participated in the fieldwork of the evaluation.

John Pielemeier – Team leader  
Jeff Dorsey-Agricultural Economist  
Ousseynou Diop – Natural Resource Specialist

## ***Evaluation methodology***

USAID/Senegal requested a non-traditional approach to evaluating the results of the Wula Nafaa project in Senegal. Instead of reviewing and verifying reported project results and assessing project management strengths and weaknesses, USAID asked the evaluation team to focus on answering a list of “key questions”. The answers to these questions, as a whole, lead to conclusions on whether the Nature-Wealth-Power paradigm is being implemented successfully in Senegal and recommendations on how this approach can be improved, both for any future project activities in Senegal.

“The main objective of the evaluation will be to validate the hypothesis that if interested communities can effectively exercise their rights to natural resources, and if there was an increase in community benefits from those resources at local levels closest to those who actually use them, then there would be more sustainable, local management and use of natural resources. This approach is more commonly known as “Nature, Wealth and Power” where each of the three components creates a synergy and impetus for growth among the others. This evaluation is intended to assess the validity of this hypothesis and gauge the project impact in terms of:

- Improving natural resource management and biodiversity;
- Increasing revenues of enterprises and local governments; and
- Improving decentralized governance of natural resources.

Therefore, the evaluation team structured its interview, visit and reading priorities to find information to address the “key questions”. The team gathered evidence via reading, direct observation and rapid appraisals that included key informant interviews and customer focus group meetings. The heart of this report is Section V which provide answers to the “key questions” and Section VII which attempts to respond to broad, more macro questions regarding the possible improvements in the Nature-Wealth-Power approach. The team did not, for example, spend time reviewing the specific results of individual technical studies, the use of the small grant program, the details of the monitoring and evaluation system, nor the contractor’s (or USAID’s) management of the project.

The methodology used to gather the needed evidence included the following steps: Review of project documents prior to initiation of work in Senegal. Initial briefings in Dakar with USAID/Senegal and the Wula Nafaa headquarters office. An extensive eleven day field trip to visit project activities in eastern and southern Senegal and in all regions where Wula Nafaa is active. The field trip included an initial day of briefings at the Wula Nafaa field office in Tambacoumba, two days of interviews in/around Kedougou, three additional days in/around Tambacoumba, three days in/around Kolda, and two days in/around Ziguinchor, the newest project area. The evaluation team was able to visit a representative sample of activities linked to two components (*volets*) of the program: Community Benefits (Wealth) and Rights and Responsibilities (Nature and governance). Return to Dakar for meetings regarding the Policy component of the project, as well as meetings with private sector organizations linked to Wula Nafaa producer groups and product networks. A debriefing (Power Point) prior to departure at the USAID/Senegal office with the presence of USAID, Wula Nafaa and Government of Senegal

officials. The evaluation team presented its summary conclusions and recommendations and benefited from questions and comments from the invited guests.

In structuring the answers to the key questions in this report, the evaluation team has used the standard methodological approach of Findings leading to Conclusions which lead to Recommendations.

The team interviewed a wide variety of individuals and groups knowledgeable about the projects activities, strengths and weaknesses. The included representatives of USAID/Senegal, International Resources Group and the Wula Nafaa project team, the GOS Forestry Service, Ministry of Environment and Nature Protection, local administrative authorities in targeted localities, regional and departmental forest inspectors, members of local communities, businesses, and civil society. In addition the team made a special effort to meet with “independent interlocutors”, persons who are neither project beneficiaries nor project implementers, but who are knowledgeable about the environment and economic sectors in Senegal and can discuss how Wula Nafaa fits into and has impact within a more macro context.

However, the reader should be aware that, given that Wula Nafaa is in its last year of activities under the present USAID contract, most of the evaluation team’s recommendations focus on future USAID strategy and programming.

The members of the evaluation team were: Team leader: John Pielemeier, Economist: Jeff Dorsey, Natural Resources Specialist: Ousseynou Diop and GOS representative: Moctar Gueye, Ministry of Environment.



## ***Executive Summary***

USAID/Senegal has a long history of supporting the environment and natural resource sector. In the new century, the mission decided to move away from a traditional one-sector model (focusing on reforestation, tree nurseries and fire breaks) and requested contractor bids for a more broadly focused new program in the relatively poor south and southeastern regions of Senegal that would stimulate economic growth while simultaneously encouraging the conservation of the region's natural resource base, including its forests. This would be done within the context of Senegal's relatively new decentralization policy which, in theory, transferred many natural resource management functions back to local communities and local government institutions.

The winning bid proposed to use a three-pronged Nature-Wealth-Power paradigm to achieve the desired USAID objectives. The underlying hypothesis was that if interested communities can effectively exercise their rights to natural resources and if there was an increase in community benefits from those resources at local levels closest to those who actually use them, then there would be more sustainable local management and use of natural resources.

The \$11.75 million project, led by IRG, was initiated in January 2003 with contract termination scheduled for January, 2008. This evaluation was commissioned to help the USAID mission answer a set of "key questions" regarding the impact of the Wula Nafaa project to date and whether (and how) the NWP paradigm could be continued and expanded at greater scale elsewhere in Senegal. The evaluation's non-traditional terms of reference did not call for a review of project history, project results or project management.

Progress to date: The project faced some initial problems with acceptance of the new NWP concept and acceptance of the cooperative arrangements between the project and the GOS Forest Service. These problems were gradually overcome and the project gained momentum as markets were identified. Community-based facilitators (32) were hired to provide daily support for clusters of targeted villages and for newly formed producer groups and producer networks. Sales increased for most of the ten natural resource-based products and non-traditional agricultural products prioritized by the project and revenues now have nearly doubled for participating producer groups. Villagers quickly grasped the nexus between this new-found wealth and the need to conserve the community forests and lands where these products are collected or land where they are grown. The project encouraged the local government (Rural Council) and rural communities to decide the contents of two "tools" or legal agreements – Local Conventions and Forest Management Plans – that would codify the rules that would control the use and the management structures for their "commons". Twelve local conventions and one forest management plan have been completed and formally approved to date covering more than 2.5 million hectares and others are in the final planning stages. Finally, a series of policy analyses combined with the practical experience gained from project activities have identified a substantial list of policy reforms that are needed to: a) reduce fraud, excessive taxation and other disincentives for the production and marketing of forest products; and b) enable communities and their elected officials to efficiently and legally manage their community forests and to benefit from the revenues derived from them. Progress towards meeting project targets has been very good. Wula Nafaa is viewed positively by local communities, local government authorities and by the Ministry of Environment.

Challenges for the future: Four key challenges face USAID and the project team for the remainder of the contract period and beyond:

1) Policy reform is uncertain: Key policy issues have been identified and reforms identified, but the degree of political support and the timeframe for enactment of these reforms is not yet clear. This support ideally should come from Senegalese ‘champions’ of the NWP approach and of effective decentralization, both within and outside of government. To garner this support, Wula Nafaa should place more attention on communicating the NWP approach and the results of the project to a variety of carefully targeted audiences within Senegal.

2) Local institutions are not financially secure. It is not yet clear whether sufficient revenues will be generated from fees, levies and fines to finance the operations of the management institutions (village development/management committees and others) created by local conventions and forest management plans. Similarly, Rural Councils (the equivalent of an elected county council) have not been delegated the revenues and authorities needed to enable them to carry out their newly delegated responsibilities. Progress towards effective decentralization may be linked to the willingness of the central government, and the Senegalese President elected in early 2007, to accelerate the decentralization process. The positive results from the Wula Nafaa experience (increased incomes, local resolution of land use issues) could provide a practical example of why decentralization should be accelerated.

3) There is little experience as yet with implementation of local conventions and forest management plans. Despite very good village participation in the development of local conventions and forest management plans, these agreements have not yet been tested by the realities of implementation. Some elements of the agreements may be difficult to execute, especially the enforcement mechanisms related to surveillance of “common” forests and lands.

4) Local institutions are not yet ready to function without outside support. Although excellent progress has been made in establishing producer groups, producer networks, and community/forest development management committees, these institutions remain weak and will require continued support and strengthening for several more years. This support can come from the project facilitators and from carefully designed training and exchange visits and should include management training that ensures transparency in decision making and financial management. Similarly, Rural Councils have a series of institutional weaknesses that impact on the environment sector. Cost effective ways to address these weaknesses will hopefully be clearly defined by pilot activities in the project’s final year.

Recommendations for the final project year: Since the project will terminate in less than twelve months (and has an already approved annual work plan), major evaluation recommendations for the final year are limited to: a) ensure a very careful design of the three pilot Rural Council interventions to clearly identify what is to be learned from these pilots and how to provide cost-efficient support to RCs in order to achieve NRM goals; and b) place strong focus on the Policy component of the project to achieve enough tangible progress to justify further USAID/Senegal support for sectoral activities.

Recommendations for future USAID programming: The Wula Nafaa project activities have been, in general, quite successful. However, most elements of the program are just now moving into the implementation phase and the young institutions fostered by the project are not yet sustainable. The evaluation team strongly recommends that USAID continue support for this program.

Preferred Option: A 2<sup>nd</sup> Phase project: The evaluation team unanimously believes that another five years of support will be necessary to bring the new institutions and initiatives to a point that they can then be continued without outside donor support. Development specialists estimate that a total of 7-8 years will be needed before facilitators will no longer be needed in project villagers to support economic groups and the implementation of local conventions and forest management plans (e.g. an additional 3 years for the oldest Wula Nafaa region and five years in the youngest region).

Project area: Phase II would continue to work in all existing project areas, but should consider adding Rural Councils adjacent to a major resource (community forests) or perhaps all of the RCs in a particular arrondissement. The project should consider expansion to the forest zones between Kaolack and Tambacoumba and/or perhaps in Fatik.

Other elements and ideas suggested for Phase II:

- Consider expansion into the mangrove forests in Ziguinchor region, where it is likely that the W.N approach can be successful working with a fishermen and coastal zone economic products such as shellfish and mangrove products. If population pressure is a major “threat” to conserving mangrove and coastal resources, adding a family planning component to this project component might be considered;
- Consider adding new products such as wood for construction and furniture making (bois d’oeuvres);
- The credit component will need to receive priority to support producer groups, processors and exporters;
- Find ways to ensure greater GOS financing for project activities, especially for Forest Service field offices (i.e. debt forgiveness monies or Forestry Fund resources);
- Encourage closer, practical linkages between SAGIC and the Phase II project, perhaps a new task order to support Wula Nafaa products at the federation/société (phase 3) level and for export;
- Test the Forest Service’s capacity to take the lead in preparing and executing at least one community and one classified forest management plan. This should give them the model and confidence that will encourage other planning efforts;
- Encourage dissemination of project models (e.g. economic groups) for adoption by other donor projects in Senegal; and
- If DG funds are available, consider a concentrated effort to broadly support Rural Councils in selected project regions.

Roads not suggested: Although the evaluation team did not have the time or resources to thoroughly explore other design options, at this point we do not recommend two options:

1. Work in Hunting Zones: New hunting concessions are about to be licensed for 5-10 years. There has been little/no reform in the hunting concession process despite strong

recommendations for change. Once the new concessions are in place, there will be even less opportunity for Wula Nafaa to play a catalytic role in these zones.

2. **Work in National Parks and Protected Areas (PAs):** It appears that the PGIES project, which is extremely well funded, is already present and working in the communities within a 5-10 kilometer radius of most national parks and protected areas. They certainly have a strong presence around the Niokolo National Park. PGIES, at present, does not encourage the exploitation of forest resources, but instead encourages alternative income generating activities (poultry, bee-keeping). The role of Wula Nafaa II in these zones might be to work with PGIES on a pilot basis to test whether forest products can be successfully exploited in zones near PAs without leading to similar exploitation within the PAs themselves.

A discussion of possible Phase II objectives is provided in the Recommendations section of this report and a broader list of “wealth component” recommendations is found in Annex V.

#### Major points from answers to “Key NWP questions”

##### **1. Increasing revenues of enterprises and local governments (Wealth)**

The overall economic impact is highly positive with substantial direct and indirect benefits, due to factors such as improved quality, expanding markets, better price negotiations and a higher portion of the final price captured by producers. Processing groups have benefited from the broader availability of processing technologies which has contributed to improved product quality and helped with new product development.

Beneficiaries, communities and buyers all report major injections of cash into the local economy and substantially increased incomes for producers and processors which has, among other things, improved security against the effects of drought.

The welfare impact is positive but still small due to the newness of the program and much reinvestment of profits in other business activities. Lower income groups, especially women, youth and the elderly, appear to have benefited since they have less access to land and other sources of income and are more dependent on collection of forest products for their livelihoods. Employment opportunities in the forest may reduce youth emigration.

Most of the ten products have found good markets, although their long-term potential for generating revenue is still uncertain. Production of charcoal and sale of wood products is just starting now but is believed to have good potential. Several new producer networks are functioning and are developing long-term relationships with buyers.

Heavy taxation, fraud and policy barriers act as disincentives to production and marketing and need to be reformed or removed if full potential benefits are to be realized.

##### **2. Improving natural resources management and biodiversity (Nature)**

Rural populations have quickly realized the nexus between increased economic benefits and protection of their natural resource base. Many communities have taken actions to reduce the number of bush fires, establish harvesting schedules appropriate for product sustainability, and patrol forests and other commons to prevent incursions and illegal harvesting.

Local Conventions and Forest Management Plans, when approved by government authorities, have confirmed community willingness to take stringent steps and necessary actions to regulate and protect their natural resources against depredation. Although it is too early to identify major physical changes in forest size or forest health, villagers report rapid improvements in productivity, forest regeneration and the return of species not seen in years. Anecdotal evidence indicates that fauna and insects what had been gradually disappearing are now making a comeback. Improved harvesting methods introduced for karaya gum (*mbep*) and madd are being widely utilized with the anticipated improvements in productivity.

Most local conventions are just moving into the implementation phase. Several problems are already evident, including an almost unworkable system of community surveillance that must rely on the Forest Service for enforcement, fines and penalties.

### **3. Improving decentralized governance of natural resources (Power)**

Although the project had no explicit institutional strengthening objectives, it has done a good job of creating, fostering and strengthening the capacities of new economic organization such as producer groups, processing groups and producer networks with well focused and well sequenced training along with facilitator support. Exporters also have benefited.

The needs and objectives of new environmental organizations (village development/management committees, inter-village committees, surveillance committees) were not clearly defined, thus it is difficult to measure progress. Most of the project's focus has been on village level institutions with good results.

There has been very widespread community participation in deciding the contents of local conventions and forest management plans. There is a good deal of community willingness to execute these agreed-upon rules and to provide volunteer time for local organizations created or strengthened by the local conventions and forest management plans.

Evidence that the local government (Rural Council) has taken on NRM management responsibilities is mixed. Some members have played key roles in the design and approval of local conventions; however it is not yet clear if they will allocate their un-earmarked funds for conservation needs or resolve NRM problems efficiently and fairly.

To date, very little revenue has been generated by local convention and forest plan rules. There are no clear estimates of how much revenue is required for the functioning of newly-created local institutions or how much is likely to be generated for them from implementation of local conventions. Very significant revenues are likely to be generated by charcoal sales, primarily from community managed forests, and revenue from fees and charges for collection of other products will also rise.

#### Major points from answers to “Programmatic questions”

1. Does the Nature, Wealth and Power approach work in Senegal? If so, why?

Yes, NWP is working in Senegal. The Wealth and Nature nexus is providing economic benefits to poor communities who, in turn, have realized the value of protecting their resources base. There is good initial progress with the community participation and community empowerment aspects of

the Power or Governance element of the paradigm. The success to date, however, could be derailed by lack of progress on policy reform and devolution of financial responsibilities.

Why is the NWP approach working? A number of contributing factors are present:

- There is strong market demand for products chosen by the project;
- Entrepreneurial spirit is alive and well, even in the remote villages of rural Senegal and villagers are responding enthusiastically to market demands;
- The Decentralization law exists even though the GOS seems hesitant about how fast it should be put into effect and tentative about how far it should go;
- After a shaky start, the Forest Service has provided recent strong support for the project;
- Wula Nafaa has done an excellent job of including local elected leaders and senior FS officers in the design and implementation of the project.

## **2. Are all three necessary for economic growth in the Senegal context?**

Yes, all three elements appear to be necessary in the Senegal context. Increased economic revenues (W) has been the driving force behind project success, with substantial improvement in community-level natural resource management (N) recognized as a needed second step to ensure long-term income.

Is the Power component really needed? Most work thus far has been at the “g” level, where tools for community governance of local resources (local conventions and forest management plans) have been put in place after lengthy periods of analysis and negotiation. If these natural resources were privately owned, rather than common community property, local conventions might not have been needed. Land owners theoretically could manage and protect their own forest, land and water resource, calling in the Gendarme or Village Chief to resolve problems of trespassing or stealing. But, where “the commons” are concerned, as in rural Senegal, the “g” component of WNP has been essential.

The issue presently confronting Wula Nafaa is how necessary is it for the project to work more extensively with the “G” institutions, the Rural Councils, to ensure project sustainability? Must the project “take on” wholesale institutional strengthening of the Rural Council (including its nine competencies – that include education, health, youth, etc, as well as environment) in order to promote improvements in planning, budgeting, financial management and transparency that would be useful to forward Wula Nafaa’s environment agenda? Should it strive to complete the work of the DGL Felo, the prior USAID democracy/governance project that terminated in 2004 and has not been replaced by USAID/Senegal? The evaluation team hopes that WN’s work in three pilot Rural Councils during Year 5 will suggest specific interventions with Rural Councils that clearly support environment program objectives and are cost- and time-efficient. Transparent and effective management and control of local government revenues will be crucial to program sustainability.

## **3. How can the Nature, Wealth and Power approach be sustained in the long term?**

The report outlines a number of specific targets for program sustainability (too lengthy to repeat here). However, the key steps to sustainability are:

- Proper application and reform of the Forestry Code;
- Reduction of fraud, excess taxation and other disincentives to the production and sale of forest and non-traditional products;
- The Forest Service acceptance of its new role and responsibilities within the context of decentralization;
- Adequate funds available (from the *Fonds Forestière*, perhaps) to finance aggressive Forest Service field activities such as forest management planning;
- Transfer of sufficient revenues to community-level natural resource management institutions (VDCs, etc) and Rural Councils to enable them to carry out their new responsibilities, or more importantly, decentralize revenue sources (as well as responsibilities) giving rural councils the authority to generate needed funds through charges, fees and local taxes on forest products.

#### **4. How can the Ministry of Environment achieve the shared results on a wider scale?**

Sharing the results of Wula Nafaa's NWP approach may be more complicated than moving to scale with more traditional projects. Several approaches are possible;

a. Ministry of Environment: The NWP approach is much more expansive than the traditional responsibilities of the Ministry of Environment. While MEPN and its Forest Service field agents could and should be very helpful in expanding the use of local conventions and forest management plans, the Ministry has no real capacity to help form producer groups, processing groups and producer networks. It is therefore unlikely that the ministry can help scale up NWP without partnering with another government institution or another donor. One possible partner is ANCAR which has reportedly helped form and support agricultural producer groups, but using a more traditional cooperative approach. The Ministry could also endeavor to scale up the model by encouraging other donor-funded projects to use it in other regions of Senegal.

b. Community-level expansion: On a different scale, expanded use of the model could also be fostered by local communities. Rural Council Presidents from Sakar and other successful project areas could be encouraged to present the model at meetings of the Association of Rural Council Presidents. Visits to successful project sites by RC presidents and other community members could be funded by Wula Nafaa. Hypothetically, neighboring villages could copy/adapt the Wula Nafaa process (11 steps) for developing a local convention. Similarly producer groups could form based on the experience of neighboring villages and could link to producer networks.

c. Future expansion possibilities: The NWP paradigm is not appropriate everywhere in Senegal. Factors that should be carefully weighed in deciding where to expand the WNP paradigm in Senegal include:

- a) determining in which locations it has NOT worked well in the Wula Nafaa project area and what factors limited success;
- b) a careful review of where CBNRM projects, more generally, have worked well (e.g. cohesive areas, manageable size, absence of major jurisdictional disputes);
- c) determine where economic opportunities exist. Thus far Wula Nafaa correctly has chosen to work in communities where significant economic opportunities had been identified and whose areas coincided with forests and other natural resources that needed protection. The project

chose NOT to work in areas where natural resources were degraded, but where such economic opportunities were absent;

d) estimates of the aggregate demand for forest and non-traditional agricultural products. The domestic and international demand for products such as karaya gum, baobab fruit, fonio, may be limited and need careful study. Additional markets or new products are emerging for charcoal, and there are good possibilities for wood products, all of which need to be investigated.

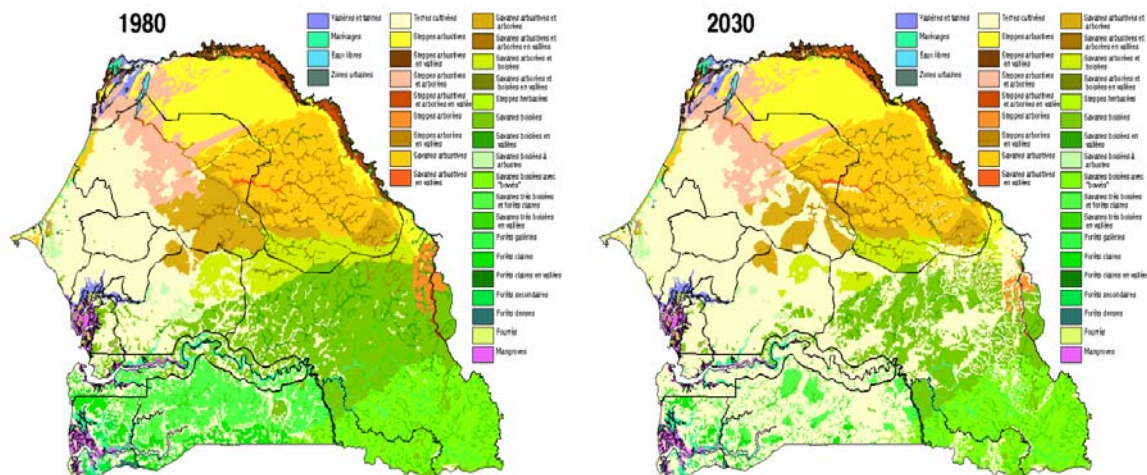


## Background and Project Setting

USAID/Senegal has a long history of supporting the environmental and natural resource sectors. In late 1999, USAID commissioned a retrospective analysis of agricultural and natural resource management programs in Senegal to identify issues and lessons learned. This study drew from numerous previous agriculture and natural resource analyses, and was based on extensive consultations with local partners and field observations. Some of the study's conclusions were that:

**Natural resources were deteriorating:** The resources necessary to create wealth and income for Senegalese households and communities—soils, forests, grazing lands, water—had been deteriorating in quality or disappearing. Marginal soils of the Sine-Saloum have been abandoned as migrants head towards the southeast. The impact of longer-term natural changes in rainfall patterns that had rendered a good portion of the country’s agricultural regions less productive had also exacerbated the human-induced degradation of the natural resource base. Exhibit 1 shows a two-map series that projects the process of degradation underway in Senegal from 1980 to 2030.

As competition for grazing land intensified, women-owned or -managed livestock



**Exhibit 1:: Comparison of Vegetation and Land Use in Senegal (1980 and 2030).** This two-map series begins with the vegetation and land use of Senegal as it was in 1980. Note that agricultural areas are represented in pale yellow.

The second map presents a projection of agricultural expansion to the year 2030, based upon the current rate of expansion, the map of arable lands, and the map of protected areas. Note the rapid loss of the southern woodlands, especially in the Casamance.

(typically sheep and goats) often got the poorer grazing. When household incomes declined, women and young people frequently faced decreased resources for production, and village land allocation often awarded the young the most marginal lands. As wood fuels became scarcer, women had to search longer to supply the energy necessary to cook for the family.

Most rural Senegalese depended on agriculture: Rural Senegalese are heavily dependent on agriculture and forest products for their income. The baseline survey of the Tambacounda region found that millet, peanuts, sorghum and maize were the crops most

commonly planted. Most rural Senegalese have, of necessity, diversified their sources of income and most households reported 7-8 occupations. The average income of rural households in this project region ranged from a low of \$120/year to a high of \$600/year in Kousinnar.<sup>1</sup>

Decentralization provides an opportunity to transfer legal and regulatory responsibilities for natural resources management to rural communities. The government of Senegal has endorsed decentralization, including decentralized control of most natural resources, but local communities have not yet been given or have not taken over effective control over natural resources nor have they benefited from natural resource-based opportunities.

At the time of project initiation Senegal's legal and regulatory context for improved, decentralized NRM was viewed as one of the most advanced in Africa and it represented an important opportunity although some legal and regulatory obstacles needed to be resolved for resource management authority to be devolved in a true and lasting sense. Most rural households and communities were scarcely aware of the devolution of powers they have already been granted for forest management and, more generally, decisions concerning resource use in their vicinity. One previous USAID democracy/governance project, DGLFelo, had begun to help establish institutional structures and know-how to take advantage of the decentralization policy, but detailed application of general resource management decentralization laws, which are of immediate interest to rural households, was lacking. Key provisions had not fully been implemented for women's land ownership. Households and communities wanted to know how they could use the existing laws and regulations to transfer a forest to their management, regulate the use of grazing land by herders from outside the immediate area, or regulate the use of water from wells or rivers in their vicinity. They did not have *step-by-step tools* and practical procedures for understanding these legal *processes* and acting upon them to secure their rights to control natural resource use.

As a result of the USAID study, USAID/Senegal's developed a new program to address natural resource management and related agricultural (Ag/NRM) issues. The Ag/NRM program was meant to help the Government of Senegal (GOS) in its efforts to improve natural resource management and raise incomes in rural areas. This Ag/NRM program, later named Wula Nafaa<sup>2</sup> ("Benefits of Nature"), was designed to contribute to two strategic objectives under USAID/Senegal's 1998-2006 plan: SO1, *Sustainable increases in private sector income generating activities in selected sectors*; and SO2, *Improved local delivery of services and sustainable use of resources in targeted areas*. The program addressed one intermediate result under each of the strategic objectives:

- Increased Commercialization of Non-Traditional Agricultural (NTA) and Natural Products: Activities to achieve this result included efforts to expand and make profitable new and existing enterprises based on sustainable NTA production and improved NRM, among other things, to increase revenues for small enterprises and rural producers. In addition, support was provided to make the policy

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<sup>1</sup> Cited in Wula Naffa baseline study, Tambacoumba Region

<sup>2</sup> Although USAID/Senegal continues to use the generic name of Ag/NRM, for the purposes of this report, the name, Wula Nafaa, will be used.

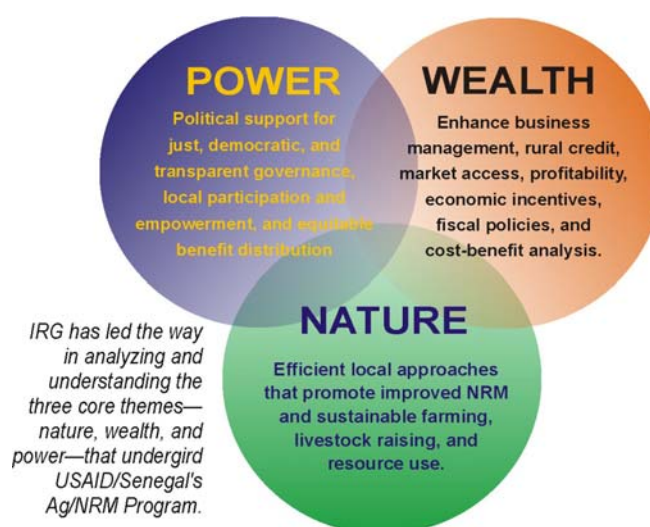
environment more conducive to the expansion of market access and increased profitability for local enterprises and associations.

- More effective implementation of policies and regulations related to Decentralization: Activities to achieve this result included efforts to promote the transfer of legal rights, management authorities and relevant capacities to local authorities that would lead to better, sustainable and decentralized community management of natural resources. The reduction of policy and regulatory barriers was deemed critical to make this transfer more effective.

In January 2003, USAID/Senegal awarded a five-year \$11.75 million contract (685-C-00-03-00008-00) to International Resources Group (IRG) to provide long- and short-term technical assistance and other services designed to support the achievement of the Ag/NRM program objective and results. IRG's key partners include sub-contractors (CLUSA/Cooperative League of USA, Winrock International, and Earth Resources Observation Satellite Data Center)/USGS; some private sector organizations; and a few non governmental organizations (Orange Bleue and local associations).

## ***Project Approach***

The IRG bid proposed a new approach to dealing with the problems of natural resource management in Senegal: a Nature-Wealth-Power approach that was being tested elsewhere in Africa. The paradigm was built upon the understanding that environmental practices, economic incentives, and good governance (Nature-Wealth and Power) were interdependent. This paradigm rejected previous approaches that provide rural communities with information about improved "environmental" practices or, alternatively, provided an exclusive focus on income generation and enterprise development or on improved governance at the national and regional levels. The N-W-P model was anticipated to be an improvement on previous 1 or 2-sector models that had rarely been successful in bringing about sustainable resource-use patterns and improved socio-economic well-being for the rural poor. The new approach would be to take measures to address the inter-dependency of:



**Exhibit 2: Interrelationship between Nature, Wealth, and Power**

**Nature**<sup>3</sup>—more efficient and locally adapted approaches to promoting improved NRM and more sustainable patterns of farming, livestock raising and resource use which would

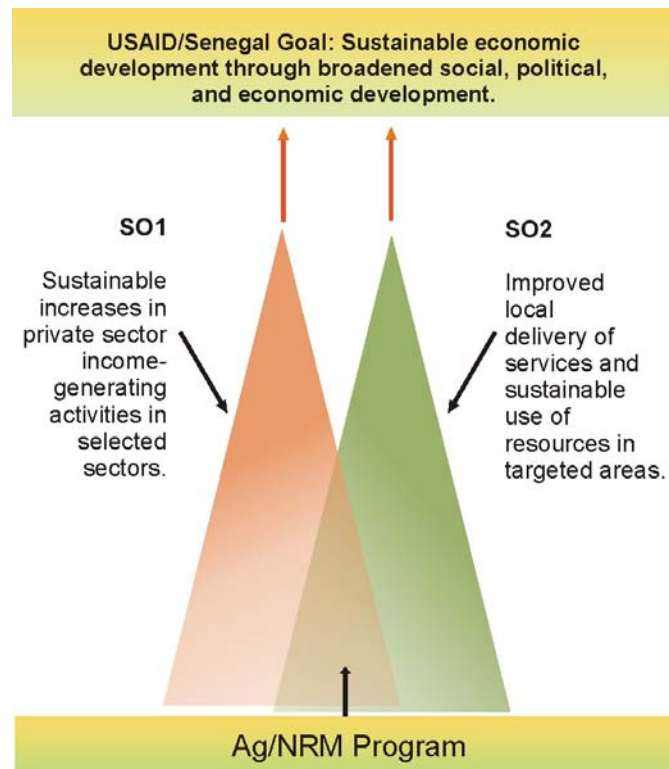
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<sup>3</sup> This description and exhibit are taken from the IRG technical proposal submitted to USAID/Senegal.

lead to increasing productivity of the resources base and to biodiversity conservation (the improved management of Nature);

**Wealth**—increased attention to business management skills, rural credit, market access, profitability, economic incentives, fiscal policies, and cost-benefit analysis which would result in significant economic growth, beneficial to local communities and to national accounts (increased Wealth as an incentive to sound resource management); and,

**Power**—greater political support for the effective devolution of rights, responsibilities, and enforcement authority to participatory, democratically organized, decentralized structures, that operate with greater transparency, accountability and more attention to empowerment and local decision-making, gender, equitable benefit distribution. This would contribute to making rural community members into citizens rather than project-dependent subjects, thus leading to a more democratic, more decentralized, and more vibrant society (strengthening of Power and of good governance so as to ensure transparent decision-making and fair and equitable distribution of benefits).



**Exhibit 3: A/NRM Program—  
Overlap of SO 1 and SO 2.**

In plain terms, the desired impact of the program, and the change foreseen at its inception, was the sustained use, conservation and management of natural and agricultural resources by local populations and an increase of businesses based on sustainable resource use. The key hypothesis underlying this activity was that if interested communities can effectively exercise their rights to natural resources, and if there was an increase in community benefits from those resources at local levels closest to those who actually use them, then there would be more sustainable, local management and use of natural resources.

The program's overall objective is to contribute to poverty reduction and to sustainable local development by increasing the income of rural producers and of local communities

through the empowerment of local authorities and the promotion of integrated, decentralized, participatory resource management.<sup>4</sup>

The IRG proposal included three major project components (Economic Benefits, Rights and Responsibilities and Policy) and some crosscutting activities (monitoring and evaluation, small grants, training, management).

Economic Benefits component: The main goal of the Economic Benefits component was to help generate cumulative revenues for small enterprises and rural producer groups. These benefits were to be achieved by improved marketing of non-traditional natural-resource-based and agricultural products and better margins for producers leading to increases in their production and greater profits for rural producers. The success of the component would be measured by quantifying the increase in profits of existing and new enterprises, as evidenced by their production levels and their improvement in natural resource management practices. During the life of the program, the Economic Benefits team would strive to reduce constraints on opportunities for profit by reinforcing the market chains for the products of Eastern Senegal and Casamance; these include 1) a non-wood forest products, 2) non-traditional annual cash crops and tree crops (cashews & palm oil), and 3) wood and charcoal.

Producers and targeted enterprise group members would be organized, would benefit from training on demand and capacity-building, and would take on a larger role in the management of agricultural and resource management which they use and on which they depend for life and well-being. In the process, the program would identify and support the most dynamic and enterprising of the rural producer groups as well as private sector players in the product marketing chains selected for WN zones. This would permit the producer groups to evolve into long-lasting and well-managed enterprises and to band together into networks to increase their volumes, to take advantage of economies of scale in marketing and to strengthen their market power for negotiating better prices and other conditions for their members. Wula Nafaa also worked with selected private sector traders and processors to establish long-term mutually advantageous ties with producer groups and their networks.

Activities for the Economic Benefits Component of WN are based on nine Contractual Results, whose indicators correspond to the following:

- 1) Number of new or existing NR-based enterprises that show increased, measurable revenues in areas targeted by the AG/NRM program (50% of group enterprises assisted),
- 2) Number of new or existing non-traditional agriculture (NTA) based enterprises that show increased, measurable revenues in areas targeted by the AG/NRM program (50% of group enterprises assisted),

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<sup>1</sup> This overall objective was formulated by the National Coordinator for the AG/NRM program and presented during the launching workshop in May 2003.

- 3) Number of enterprises based on NR or non-traditional agriculture that can show a measurable increase in revenues in WN zones, AND that have done at least one of the following: applied training in business plans and marketing strategies; adopted improved production, harvest, and value-adding techniques; or negotiated with external partners,
- 4) Number of enterprise groups receiving initial training given by WN facilitators,
- 5) Number of groups assisted by WN in various capacities,
- 6) Number of market surveys and studies to identify potentially marketable AG/NRM products,
- 7) Number of grading schemes and value-added processes developed to increase revenue and profitability of producers,
- 8) Level of revenues per enterprise group assisted, and
- 9) Volume / number of products marketed by enterprise group assisted.

Wula Nafaa chose to work with the following ten products:

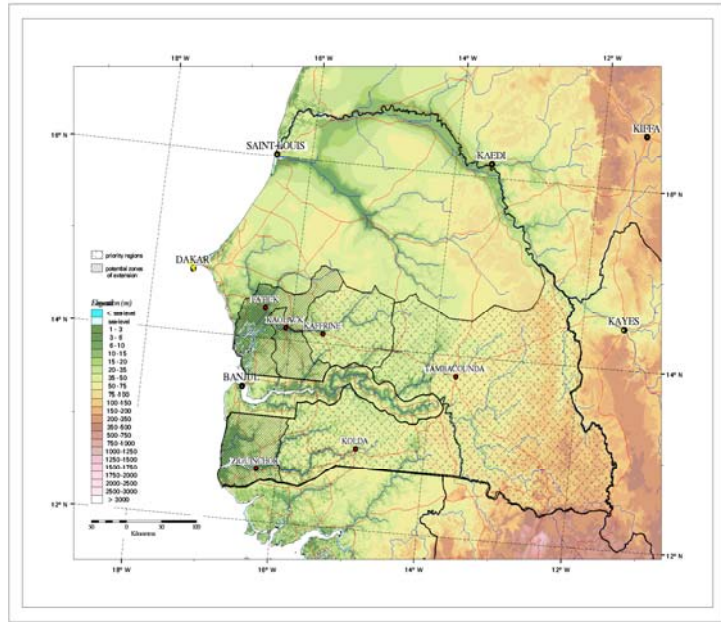
<div> <div></div> <div> <div></div> <div>Non-Traditional Agricultural Products (NTA)</div> </div> </div>		<div> <div></div> <div> <div></div> <div>Natural Resource-based Products (NR)</div> </div> </div>	
<div> <div></div> <div>honey/beeswax</div> </div>	<div> <div></div> <div>fonio</div> </div>	<div> <div></div> <div>gum mbepp or laalo</div> </div>	<div> <div></div> <div>jujube</div> </div>
<div> <div></div> <div>palm oil</div> </div>	<div> <div></div> <div>cashew nuts</div> </div>	<div> <div></div> <div>mbep<sup>5</sup></div> </div>	<div> <div></div> <div>madd</div> </div>
		<div> <div></div> <div>baobab/ bouye</div> </div>	<div> <div></div> <div>charcoal</div> </div>
		<div> <div></div> <div>thatch/hay</div> </div>	

<sup>5</sup> Known as “karaya gum” in the international market and often referred to locally simply as “laalo” which is a generic term for lubricant.



The Rights and Responsibilities component planned to promote better, sustainable, and decentralized community management of natural resources by means of the transfer of responsibility as well as by validating legal rights, management authority, and relevant capacities.

The approach was based on territory-wide areas such as the Rural Communities (RC). Key results that are being targeted by the component during the life of the program consist of increases in the elements listed below:



**Exhibit 4 Location of Proposed Intervention Zones in Targeted Regions (cross-hatched areas)**

1. Number of communities/CBOs that have undertaken community-led activities to increase productivity of NR in a sustainable manner;
2. Number of communities/CBOs that have engaged in formal co-management relationships with actors and institutions external to the community to increase productivity of NR;
3. Number of hectares that are under legally recognized, community-based and sustainable NRM plans known as local conventions;
4. Number of hectares that are under legally recognized, community-based and sustainable NRM plans in Community Forests;
5. Number of communities receiving training in NR monitoring, enforcement of local codes, or conflict management;
6. Number of communities or CBOs that develop natural resource management plans that are overseen by the communities; protocols; agreements; or local codes that govern access, use, and protection of NR; and
7. Number of regional units whose skills in mapping and inventory of NR is improved.

Policy Component: The ultimate aim of all the activities of the Policy component of WN was to reduce barriers to sustainable natural resource management. The barriers could be legal, regulatory, or administrative. Reducing their blocking effects would benefit rural communities and local people, especially in economic and ecological terms.

The objectives of the policy component are described by four contract results, as follows:

1. Reduction in the legal, regulatory, and administrative barriers that hamper sustainable natural resource management;

2. Setting up long-term and useful discussion forums among Rural Communities, regional and national government structures, and the private sector;
3. Provision of evaluations, studies, and political analyses to support the national Policy Agenda;
4. Development of tools and information systems to support the policy section, including capacity building in resource valuation and in mapping/GIS at the regional level.

The three technical sections of the program were supported by certain crosscutting activities: coordination and management; small grants; training and literacy classes; and Monitoring-Evaluation-Restitution-Analysis. None of these components directly targeted the contractual results of Wula Nafaa, but they would contribute in a global way to the achievement of these results.

Geographic Focus<sup>6</sup>: The regions of Senegal targeted by Wula Nafaa were:

Beginning in July 2003: Tambacoumba Region

Beginning in July 2004: Kolda Region

Beginning in July 2005: Ziguinchor Region

Household socio-economic surveys, of prospective target areas, regional visits and land use analysis helped the project team determine which community clusters in each department would be covered by the project.

One essential criterion for selection included: the presence of forest products or non-traditional crops that could lead to increased economic benefit. Other factors included the interest of the community and its leadership in taking responsibility for management of their natural resources.

Use of Community-level Facilitators, Following a model used by CLUSA in countries all over Africa for organizing producers around the marketing of profitable products, community level facilitators were hired as the frontline workers to work in a multi-disciplinary way to organize communities around the NWP concepts. Facilitators are generalists, normally high school graduates, who speak the local languages, are comfortable working with members of rural communities, and are chosen only after successful interviews which include representation by the local community. The facilitators (32 hired initially) would live in communities in the program intervention zones, take the lead in facilitating community mobilization and organization, training and capacity-building, helping the community to secure NR rights, and to improving its NRM planning, help form producer organizations and assist them with business development and expanded products marketing. Though some community members attended project courses, most community level training was provided by the facilitators based on a training-of-trainers approach: facilitators themselves received technical training in new subject matters (e.g. sustainable harvest techniques for madd and mbepp) as the project

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<sup>6</sup> See Exhibit 3. The crosshatching on this map, however, does not include the Ziguinchor region that was added in 2005.



progressed and then passed what they had learned on to the communities in which they worked.

### ***Summary of Project Results to Date:***

Background: In its RFP for the project that eventually came to be known as Wula Nafaa, USAID/Senegal required the contractor to report on only six “key results” – 3 for the Community Benefits component, 2 for the Community NRM Rights and Responsibilities component and 1 for the Policy component. These indicators were ALL very quantitative in nature:

- Increased number of new or existing natural resource based enterprises that show increased measurable revenues in areas in which the contractor works;
- Increased number of communities/CBOs that have undertaken community-led activities to increase productivity of natural resources sustainability;
- The number of ‘reduced legal, regulatory, or administrative barriers to local, sustainable management of natural resources.

They appear oriented to measure the breadth of project activities, rather than the depth of policy change, institutional change or the effectiveness of the natural resource management activities in a community.

The winning proposal submitted by the IRG-led team offered some additional milestones that would contribute to the longer-term contract results. These output-oriented milestones, such as “number of market surveys and studies to identify potentially marketable AG/NRM products” were subsequently added “in toto” into their contract with USAID/Senegal. As a result, the project targets and indicators of results became even more output and quantitative in nature. Each of the targets and indicators was specifically identified within one of the three project components.

The contractor was required to show how well the project outputs/results from the various components came together in the USAID mission’s Performance Management Plan to contribute to both of the overlying USAID/Senegal Strategic Objectives which provided overall authorization for the project: (SO 1: Sustainable increases in private sector income generating activities in selected sectors; and SO2: Improved local delivery of services and sustainable use of resources in targeted areas). However the synergies of the three sector NWP approach were not brought together in the project reporting framework nor in the mission’s reporting system.

According to the Wula Nafaa team, this attention to detailed annual outputs and quantitative indicators forced the project team to quickly focus project activities on showing progress towards meeting the numerical targets by component.<sup>7</sup> It also

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<sup>7</sup> USAID/Senegal points out that the targets were revised (and sometimes eliminated) over the course of the project to keep them realistic to what was achievable and desirable.

encouraged the team, to work by component rather than to focus on broader NWP results working as a project team. This accentuated divisions within the team since separate contract partners were responsible for separate components (e.g. CLUSA-economic component, IRG-rights and responsibilities component, Winrock-M&E component).<sup>8</sup> One might conjecture that this M&E approach also encouraged the project to focus more on the quantity rather than the quality of their interventions.<sup>9</sup>

**Project Results to Date:** In any case, project progress in meeting USAID contractual targets at the end of the 4<sup>th</sup> year of the project, September 2006, is very good. The project indicators and progress to date are laid out in the Table I<sup>10</sup> below, divided by project component.

Wula Nafaa is also a successful project from the Government of Senegal perspective. The GOS Ministry of Environment is required to help the GOS meet its annual economic growth target of 7-8%. Wula Nafaa is one of the only Ministry of Environment projects to include a major economic growth element. Reportedly Wula Nafaa's progress is monitored closely in ministerial review meetings and internal evaluations and its very positive results to date are welcomed by high level government officials.

**Table 1 Wula Nafaa Project Targets and Results to Date**

**Community Benefits Output Targets and Indicators**

Contract Result Indicators	Target <sup>11</sup>	Results as of 9/06
1. Number of new or existing NR-based enterprises that show increased, measure-able revenues in areas targeted by the AG/NRM program (50% of group enterprises assisted)	1600	681
2. Number of new or existing non-traditional agriculture based enterprises that show increased, measurable revenues in areas targeted by the AG/NRM program (50% of group enterprises assisted)	1600	2400
3. Number of new or existing NR or NTA based enterprises in areas targeted by the AG/NRM program that show increased, measurable revenues AND have applied training to develop business plans and marketing strategies, adopted improved production, harvesting or value-added processing techniques, or negotiated joint ventures with external partners.	150	95
4. Number of enterprise groups benefiting from initial training by the facilitators.	1400	1700
5. Cumulative number of enterprise groups assisted by the program	3400	3400
6. Number of market surveys and studies to identify potentially marketable AG/NRM products.	20	11
7. No. of grading schemes and value-added processes developed to increase producer revenue/income per unit production.	16	12
8. Level of revenues earned by assisted group enterprises	250%	?
9. Volumes marketed by assisted group enterprises	50%	49.2%

<sup>8</sup> These problems were largely resolved by changes in leadership in the contractor team.

<sup>9</sup> Comment by the Wula Nafaa team: "We have found ...that integration in Wula Nafaa and NWP is generally sequential as illustrated in our introduction to the program. In community forest areas we have found one must start with Power first, then Nature and then Wealth. In common land areas one generally starts with Wealth and then Power and Nature. This leads to integration but via a sequential manner"

<sup>10</sup> A more complete table of project targets and results to date is found in Annex IV

## NRM Rights and Responsibilities Output Targets and Indicators

Contract Result Indicators	Total	Results as of 9/06
1. Increased number of communities/CBOs that have undertaken community-led activities to increase productivity of NR sustain ably	2000	1400
2. Number of communities/CBOs that have engaged in formal co-management relationships (joint ventures, etc.) with actors and institutions external to the community to increase productivity of NR sustain ably	14	15
3. Number of hectares that are covered by legally recognized community managed sustainable NRM plans (Conventions Locales)	3,069,806	2,500,000
4. Number of hectares that are covered by legally recognized Forest Management Plans	99,251	40,000
5. Number of communities receiving training in NR monitoring, enforcement of local codes and conflict management	90	60
6. Number of communities/CBOs that have developed CBNRM plans, protocols, agreements and local codes governing access, use and protection of NR	24	23
7. Resource assessment and Mapping/GIS capabilities strengthened at the regional level	6	2

## Policy Output Targets and Indicators

Contract Result Indicators	Total <sup>12</sup>	Results as of 9/06
Re1. Reduced legal, regulatory or administrative barriers to local, sustainable management of NR	34	37
2. Number of verifiable, sustained processes of consultation between and among Senegalese communities and sub-national / national governmental offices and the private sector	80	98
At the community level	53	73
At the national / sub national levels	27	25
3. Number of assessments, supporting field studies, policy analyses contributing to progress in addressing the policy reform agenda prepared and disseminated	33	35
4. Number of tools & information systems developed in support of the policy component	8	11

## Responses to Key Questions

### Increasing revenues of enterprises and local governments (Wealth):

#### W1. What has been the overall economic impact of Wula Nafaa?

The Wula Nafaa program has had a strongly positive impact on individual and group enterprises and has motivated members of targeted communities to take a greater interest in the natural resources from which increased income is derived. At the same time, it has helped local communities to assume the greater role in the management of natural

<sup>11</sup> Depending on the specific nature of the contract result / output target, the total column may be an additive sum of the targets achieved in each year of the program (e.g. number of enterprises showing increased revenues, number of grading schemes developed, number of communities receiving training in NR monitoring), or the cumulative total achieved during the life of the program (e.g. number of facilitator mobilized, number of CBOs engaged in co-management, number of hectares covered by plans).

resources accorded them by the decentralization process through the establishment of local conventions and forest management plans. It is beginning to help local governments in targeted communities to obtain access the financial resources to which they have a right and which they need to adequately manage the local natural resources in their areas of responsibility.

Impact on enterprises<sup>13</sup> The WN program has focused on communities having significant forest resources in need of better management by local government as a result of provisions of the decentralization process. Its economic component has focused on a relatively small number of non-wood forest products widely found within targeted communities, on charcoal, and on a small number of non-traditional agricultural (NTA) products capable of increasing income through better marketing and improved production technology developed in conjunction with the community with program involvement. The hypothesis behind Wula Nafaa's approach is that the economic interest of the community in increased revenues derived from these products will stimulate better natural resource management and conservation both in the short-term and long into the future.

Background research was conducted on 49 products and 15 value-chain studies were commissioned along with discussions with prospective buyers and the involvement of the community in establishing marketing relationships with private sector partners. Principal and secondary forest products selected were the following: **karaya gum** (*gomme mbepp*), **baobab fruit**, **madd and charcoal** as well as jujube, nététou and thatching grass. Non-forest products (non-traditional agricultural products) selected are: fonio (a tiny non-glutinous grain which has the same function as rice in the Senegalese diet),<sup>14</sup> cashews, palm oil and honey/wax. All products are affected by bush fires, whose control is a major goal of the communities benefiting from income from these crops; even fonio which is grown in fields outside the forest is also affected as fires are not confined to the forest and burn adjacent grasslands and fields as well. Although cashew trees are not consumed by fire and are often used as boundary plantations to protect agricultural fields, raw cashew production is also affected by bush fires. Products selected are grown widely within the project area and increases in their production have been broadly felt within the community. Some additional products which are of significant value but occur in pockets (gum arabic, shea butter, ditax fruit, etc) are also benefiting from project efforts, although they are not directly targeted by Wula Nafaa.

The project's approach has been to work intensively with communities making use of resident staff who speak local languages to work intensively with local producers and to organize them into groups (primary level cooperatives) along product lines, to introduce representatives of these groups to selected product buyers, to bring together quantities of

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<sup>13</sup> A discussion of the economic impact on local governments is included in the answer to a similar question ("To what extent is local government revenue being increased through local conventions and forest management plans...") in section V (C) below.

<sup>14</sup> Fonio consumption is currently low, but it is growing as its nutritional qualities and good taste are increasingly recognized; demand is rising fast both in the domestic and overseas African and "health food" markets.

product sufficient in amount and of standard quality in a single place at a pre-established date to justify a buyer's decision to send a truck to pick up and pay for the assembled load. With support from the facilitators, groups have been encouraged to form *réseaux* (networks or second level cooperatives), to bring together larger product volumes and to work on quality issues with producers, justifying further price increases based on product volume and quality. Facilitators and project staff provide intensive initial support and training to help get groups and *réseaux* established and to set them on a path toward self-sufficient operations. Subsequently, these producer organizations become sufficiently strong and self-confident to handle day-to-day operations on their own, allowing facilitators and other project staff to concentrate on new groups and in some case on product diversification.

The economic impact of this approach has been highly positive in all products chosen for support. Gains are greater in higher value products such as karaya gum as compared with thatching straw which is low value. Production of charcoal is just starting but potential gains are very substantial indeed in this product whose price is high and whose supply is restricted by oligopoly in marketing. Earnings are high enough to encourage participation by the local population including some men in higher social groups (and even some *Fulani* (*Peuls*) who normally concentrate on livestock-raising). Previously gum-tapping and charcoal-making had been left to lower social strata such as workers coming in from Guinea and members of ethnic groups formerly classified as “slaves.”



Wula Nafaa processed products, Wula Nafaa headquarters, Tamaboumba

Many of the products selected are gathered primarily by women, young people and the elderly; these include baobab fruit, palm oil, netetou, fonio and jujube. Women's groups have also been organized, brought into contact with buyers and the main market in Dakar, informed about demand and quality requirements of buyer, taught appropriate processing techniques and assisted with processing equipment, hygienic production facilities and the pre-finance of transport costs with project grants or advances, in lieu of credit facilities which are not yet in place. Madd is more of a male product than a female product but a large number of unemployed youth benefits from its collection and sale.

**Conclusions:** The project's approach with heavy initial involvement of resident facilitators and office-based project staff which declines over time, has been appropriate and has had major impacts on prices obtained, volumes marketed, and total revenues obtained by targeted producers from products supported by the project. Increased income by non-members and by producers in communities not directly focused on are also reported to be very significant. The Wula Nafaa approach and some production and processing technologies are being widely adopted by non-project participants and adapted to non-targeted products. Though difficult to monitor and to estimate with any degree of accuracy, such impacts are clearly widespread.

**W2. What is the projected rate of return on the program's investments in the chosen market chains and how does this compare to other programs?**

Economic analysis is of critical importance in deciding whether or not projects should be financed. However, simply ranking projects by their internal rates of return is not the way this analysis is normally done nor the way it should be done. As Gittinger states<sup>15</sup>, all projects having a rate of return above the cut-off rate, whatever rate an individual donor selects, should be funded. Often the cut-off rate is set as the opportunity cost of capital, what capital could earn if invested in alternative projects. For simplicity's sake, the cut-off rate is often arbitrarily set at 10%. If a donor has sufficient funds available, the donor would fund all projects above its cut-off rate. Since funds are normally not available to fund all such projects, program directors and managers select the better of these projects based on other criteria among competing projects all of which have rates of return higher than the cut-off rate. Sometime total net present worth is the criteria used, whereby projects with larger total net present worth (discounted benefits minus discounted costs) are selected over those having lesser total net present worth. Rates of return achieved by projects managed by other donors or even by USAID itself are less relevant than the satisfaction of knowing that its projects are achieving and leaving behind benefits streams which even after being properly discounted outweigh the cost of the projects. It is also important to be convinced that benefit streams from well-designed projects will be continue long into the future, even if their level may fall somewhat from the level of benefits obtained during the project's implementation phase.

If the economic component of the Wula Nafaa project were a stand-alone project of its own, it would be possible to list all project costs, the points in time at which they occurred, all project benefits for product-1 and the specific times when they occurred from year 1 out to year 20 or so, all benefits from every other product from product-2 to product-n and to aggregate all benefits and costs for all these products, adding in benefits achieved by non-members from floor prices set by producer organizations through marketing agreements with major buyers (indirect effects), and other benefits to both member and non-member producers from non-targeted products. An internal rate of return could then be calculated for the component.

The economic component of the Wula Nafaa project is not designed as a stand-alone project but rather as one pole in the tripod of the project's unified approach of nature-wealth-power. The economic component would not work as a stand-alone project, since without the other two poles; the resource base would rapidly cease to exist through depletion and the tragedy of the commons. Producers would have no interest in collectively conserving the forest resource base, and local government would not be establishing and enforcing rules nor would it be imposing access fees and fines for illegal

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<sup>15</sup> "Internal rate of return: ...Often abbreviated IRR. When using the internal rate of return, the selection criteria is to accept all INDEPENDENT projects with an internal rate of return greater than the CUT-OFF RATE, which is generally the OPPORTUNITY COST OF CAPITAL. May give incorrect ranking among independent projects. Cannot be used directly for choosing among MUTUALLY EXCLUSIVE alternatives."

– J. Price Gittinger, *Economic Analysis of Agricultural Projects*, Second Edition, Johns Hopkins University Press, Baltimore, 1984, pages 480-481.

access to and for abuses affecting the natural resource base. Had managers of the economic component of Wula Nafaa simply been interested in maximizing revenue, they might well have chosen different set of products, picking those with highest total value even if chosen products were not widely distributed within the project area. Products thus chosen would not necessarily have acted as incentives for the bulk of the population to conserve forest resources which would not be producing economic benefits for them nor to push local governments to adopt local conventions and management plans to regulate access to natural resources nor to agree to finance this management by fees and levies on forest products and fines for misdemeanors affecting forest resources.

Therefore, it does not seem useful to model the economic component of Wula Nafaa as if it were a stand-alone project. On the other hand, it may be useful to do partial financial analysis to decide which additional localized forest products might be supported by a second phase of the Wula Nafaa project.

It might be useful at some point in time to build an economic model of the entire project, including costs and benefits of all three poles of the tripod: nature and power as well as wealth. The modeling of individual crops and benefits accruing directly to organized groups of producers is well understood and straight forward. However, the floor price effect is more difficult to model in Senegal since accurate product volume figures on some products are difficult to obtain. E&F figures are based on tax data. These figures are suspect and probably underestimate product volumes due to fraud and substantial evasion of taxes on heavily taxed products like karaya gum and due to a generalized tendency to understate product volumes to reduce official taxes and “unofficial taxes” collected at control points. Unregistered cross-border trade may also be a factor given significant differences between forestry product tax rates and duties on imported products. A sample survey methodology would probably be necessary to establish real product volumes and then to estimate indirect benefits; such surveys are difficult and expensive if they are to achieve reasonable levels of accuracy. Non-targeted products (not included in Wula Nafaa’s analysis of indirect benefits in its 2005-2006 annual report) are also providing benefits as producers adopt similar organizational and marketing strategies to those used for supported products; furthermore, even non-targeted producers may benefit from increased production and better marketing of these unsupported products. Multiplier effects within the communities and the region of increased income accruing to the poorest households would also have to be calculated and included; some value would also have to be assigned to income obtained by youth allowing them to remain in and to contribute to the development of their communities instead of emigrating to Europe and beyond. Case studies and surveys would be needed to establish the extent that these benefits are occurring and what products are involved.

Values would also have to be assigned to the benefits which spill over from improvements in governance with respect to management of natural resources and which then go on to yield improvements in the way local government entities manage other responsibilities unrelated to natural resources. Analysis of the overall economic benefits of the Wula Nafaa project might best be achieved by a combination of expertise including international consultants with experience in the economic evaluation of similar projects

in other countries and Senegalese consultants familiar with the local economies of forest communities. A concerted effort should be made to involve the FS and its economists in this analysis and to stimulate their efforts to make collection of information needed to quantify benefits from better local management of natural resources part of the regular program of work of the Forest Service.

Case studies and surveys would be needed to establish the extent that these benefits are occurring and what products are involved. Analysis of the overall economic benefits of the Wula Nafaa project might best be achieved by a combination of expertise including international consultants with experience in the economic evaluation of similar projects in other countries and Senegalese consultants familiar with the local economies of forest communities.

Many of the natural resource benefits depend on assumptions which would be risky to make at this point in time where project impacts are just beginning to be felt and are occurring on a slow-growing domain like nature where they are difficult to perceive and hard to quantify accurately. Will short-term reductions in bush fires continue? Will natural regeneration of forest species occur and, if so, at what rate? Will bio-diversity increase and to what degree, and what value should be put on this diversity? Will fauna long extinct in Senegalese forests return and, if so, in what numbers? What value should be assigned to their return? Will controls put on adverse impacts of transhumance be sustained in the long-term, and what impact will these controls have on forest regeneration, and what price tag can be put on the value of increased bio-mass resulting from regeneration? How much charcoal can be harvested per year from managed forests? What value should be put on this charcoal, given that the charcoal market is likely to become more competitive and prices are likely to fall as the oligopoly of charcoal suppliers is broken? What value should be placed on the consolidation of producer organizations and on the capacity they have developed based on work on WN-targeted products to respond appropriately and to take advantage of the production and marketing of attractive new products which may emerge in the future? Measuring and predicting project impact on slow to develop changes in the natural resource base will be difficult. However, the discussion around it could stimulate focus on those elements of the program most likely to contribute to larger future benefits from forest resources.

The project will of necessity have to improve local government management both of natural resources and of the financial resources it obtains as a result of this improved management if project benefits are to be sustainable. In economic models, taxes are considered benefits. What value can be put these revenues? How much will really be collected? Will control systems, external audits and the greater sophistication of local populations keep losses from fraud in local government down to negligible amounts? Or will rampant fraud cause the whole NWP system to fall apart as soon as the Wula Nafaa project ends?

All these questions (and many others) would have to be answered to calculate the benefits of the overall Wula Nafaa project. Asking these questions and working through them to “best case” and “most likely case” solutions and determining the costs of achieving them



could be a useful exercise for Wula Nafaa and for USAID to reflect upon and to analyze. Given the conclusion of this evaluation that the NWP model is successful and worth expanding it might be worthwhile for USAID to invest more heavily than it otherwise might in quantifying benefits derived from or likely to accrue to this model of development which may be applicable to other regions or other countries with significant forest resources.

### **W3. What has been the impact on poverty reduction?**

Although poverty reduction is not a main focus of the Wula Nafaa project, fieldwork in connection with this evaluation indicates clearly that the project is having the effect of reducing poverty in targeted communities and in particular of increasing income available to low income community members. The project has not generated the kind of data (baseline and follow up household income and expenditure studies) that could be used to measure the project's impact on poverty reduction.



Weaving bee hive baskets, Kolda Region

Nevertheless it is clear that if the project achieves its income benefit targets and if these benefits are widely spread among various elements within the community, substantial poverty reduction will be achieved whether targeted directly or not. In fact, the poorest members of communities, the youth without land or jobs, women, and the elderly target the opportunities opened up to them by project-fostered forest product collection activities which provide income to those willing to engage in the hard work and

difficult working conditions this activity involves. One village (Wourohama in the Tambacounda region) reported income of the order of nearly FCFA 15 million (US\$30,000) from karaya gum production, and were planning on investing in a warehouse to house the growing stocks of gum held while waiting for pickup. Residents of another village (Bala) also reported payments for karaya gum of FCFA 2-3 million (US\$4000-5000). These are amounts of cash which they had never seen before, not even from their main cash crops of cotton and peanuts. The representative of an association present at the field visit to Koulor village made the point that young people lacking employment or remunerative activities in their zones of origin are forced to migrate overseas; income-making opportunities derived from the activities of Wula Nafaa will help to stem the tide of emigration and young people will find sources of income which allow them to remain and to work productively within their communities. The partner company which purchases most karaya gum produced by groups and *réseaux* organized by Wula Nafaa (Setexpfarm) reported sending hundreds of millions of CFA francs (hundreds of thousands of dollars) into the eastern region of the country, noting the positive impact that this volume of cash injection must have on the local economy.

These changes are relatively recent and have occurred within the past year or two. They are being largely reinvested either in the same business producing these revenues or in other investments such as goats, bicycles, working capital for buying and selling products, etc. Thus, the standard of living of most families involved with forest and agricultural products supported by Wula Nafaa have improved only modestly so far but can be expected to improve markedly in future years as families come to believe that the annual income stream derived from these products is permanent and not simply a one-time windfall. Milton Friedman posited in 1957 that people make spending decisions based on their permanent income and do not adjust consumption patterns to income changes unless and until such increases in income are perceived to be permanent rather than temporary.<sup>16</sup> Women's groups in particular reinvested most of their income in their main or allied business activities, but also pointedly referred to the importance of income from collecting forest products such as madd or distribution of profits from their group processing businesses during the hungry season (*période de soudure*) as critical to addressing family food and other urgent needs during a time of the year when they had no income from agriculture.<sup>17</sup> Thus, the timing of income from forest-related activities which is countercyclical may be as critical to addressing the most negative impacts of poverty as is the amount of income actually received.

**Conclusions:** Without specifically targeting poverty, it is clear from fieldwork that many of the forest-product collection activities, charcoal production and other wood-based forest activities allow poorer members of local society to self-target their involvement in these activities. Revenues from all of the activities inject varying amounts of money into communities which, through multiplier effects, then generate additional activity within the local economies, creating jobs for the poor in the process. As local governments become more involved in managing local forest resources, Wula Nafaa should encourage rural councils to make sure that exploitation fees and other charges are set in a way which do not discourage or preclude low income members from entry into these activities.

Wula Nafaa should also assist buyers like Setexpharm to access marketing loans. (Karaya gum is not currently targeted by SAGIC but probably should be; SAGIC should be able to assist companies like Setex that work with Wula Nafaa in areas that go beyond Wula Nafaa's capacity and scope, including their improved access to credit through DCA or from other sources.) Delays in payment affect all producers, but the poor can least afford to wait and are often forced to sell their products fast and to accept prices no matter how unfavorable offered to them by bana-bana traders.

**W4. What are the costs and barriers to expanding the economic benefit component on an increasingly larger scale? Is the current approach (in terms of staffing and technical methodology) sufficient to insure the most rapid growth possible for the targeted products?**

**a. The Approach**

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<sup>16</sup> <http://www.economyprofessor.com/economictheories/permanent-income-hypothesis.php>

<sup>17</sup> The effects of drought can be devastating in the project regions. The Wula Nafaa baseline survey of Tambacoumba Region found that most families received revenues from traditional agriculture as low as \$36 in 2001 (a year of substantial drought in eastern Senegal) compared to an average of \$100 to \$400 in non-drought years.

The current approach in terms of the economic benefit component is an adaptation of CLUSA's approach developed over many years in Mali and then replicated with appropriate changes depending on overall project goals in Mozambique, Zambia, Guinea Conakry and elsewhere in Africa. The method involves heavy interaction with communities from the start where communities are offered the possibility to participate if they meet selection criteria established for overall project goals and if also have significant production potential. Communities which then choose to participate (and not all communities initially choose to do so) then receive active and intensive support from the project including the presence of resident facilitators (generalists who speak the local languages) to form producer groups of willing participants around a single or limited number of products chosen to meet general project criteria and for their income-generating potential and wide distribution over the project area. The approach does not specifically target the poor but generally does bring in large numbers of poor producers including women. Wula Nafaa choose non-wood forest products, charcoal and non-traditional agricultural products. By this choice, Wula Nafaa guaranteed that project benefits would reach the poorer segments of the communities; women, young people and the elderly are involved in the collection of non-wood forest products, the young in the production of charcoal and other wood products, and women in the transformation and marketing of non-traditional agricultural products.

Intensive work by facilitators starts with group formation and training in group principles and cohesion, minimum quality standards, and basic product marketing. It is followed by meetings and exchange visits connecting organized producers to buyers screened for their size and for the seriousness of commitment to working with producers to obtain significant volumes of product of acceptable quality, with a price premium paid for meeting volume and quality goals. As producers become familiar with market demands and are motivated by higher prices, they move on to improved production technology to increase volume and further improve quality. Individual producer groups are made aware of the advantages of organizing into higher level cooperatives and are assisted to do form such organizations (called *réseaux* and federations in Senegal). These organizations need training in business development services (BDS) and good governance which facilitators and other project staff provide. As organizations mature, the need for hand-holding and direct intervention by facilitators in standard marketing operations progressively declines and facilitators though still available should they be needed, gradually reduce their level of involvement in day-to-day operations and concentrate on helping groups to take advantage of additional new opportunities which arise (such as diversifying into other products) or to move on to form new groups concentrating on minor products of local economic importance in targeted communities. Wula Nafaa also assists producer organizations to improve their market information communications through brokering deals and encouraging groups to get cell phones to take advantage of the rapid expansion of cell phone network coverage which now covers many parts of rural Senegal, including many areas visited by the team during fieldwork.

Producers in nearby communities who were not initially interested in the project have become extremely motivated when they see the highly positive financial results in communities served by the project and demand project services. Facilitators and other

project staff respond by providing similar services to groups newly formed in these communities to those provided in originally targeted communities. Fieldwork by the team indicated strong demand for expansion into neighboring communities and regions adjacent to the project as well as to new areas, some of which had already been considered as possible expansion areas in the past.

As groups handle larger product volumes, the need for financing for transit warehouses to store the products and for credit for working capital to pay member and non-member farmers for their products looms high among group needs. Outside support from the project in terms of grants for capital investments and credit facilitation for working capital for buying products is required. Donor support for credit guarantee schemes such as the USAID Development Credit Authority (DCA) may also be necessary at this point in the development of organizations.

The project also works with groups of collector/processors in project areas to make them aware of market demands in terms of volumes and quality of products, provides organizational support along the same lines as for producer groups, and technical and financial support (small grants) to produce products of a quality product and in amounts demanded by the increasing sophisticated Dakar and overseas African markets. The small grants facility financing hygienic premises, minor processing equipment (such as dehullers for fonio), and pre-financing of transport costs for getting product to market has been instrumental in initial success of processing groups. Its support to facilitate credit will be crucial in consolidating their initial success.

Wula Nafaa also works with major buyers to upgrade their products and to improve their ability to market them in the large Dakar market and to the overseas African market and to the international market for specific products. This support has included training (HACCP, website design, etc) study tours (Setexpharm representative to India on tapping and other quality-related technologies), small grants for quality-related production equipment, etc. Enterprises have encountered constraints in terms of working capital for purchasing products from producer organizations and for financing raw material inventories acquired during short buying seasons and in terms of capital investments. For example, despite having agreements with Setexpharm, affiliated producer organizations sold only 32% of their karaya gum production to Setexpharm and sold the remaining 68% to bana-bana or to the competition (Socogomme), due in large part to lack of working capital to pay cash for gum which producers had assembled and to its failure to meet pick up schedules on time. Failure to show up for scheduled pick ups is often due to poor communication; these difficulties being addressed with Manobi (a marketing communication company). The failure to show up also seems to be related to the lack of working capital to pay for the gum. Companies processing cashews also need large amounts of working capital to buy cashews during the relatively short marketing seasons in order to maintain a stock of raw cashews for processing throughout the year. Marketing credit is clearly an issue for sustaining and increasing benefits from the approach Wula Nafaa has helped create.

## **b. Overcoming constraints and barriers**

A number of constraints and limiting factors will have to be overcome during the final year of the Wula Nafaa project to maximize benefits from its economic component. These constraints would still need to be addressed in any extension or second phase of the project.

1. Credit: Credit has become a constraint at two levels: 1) producer/small processor group and *réseau* level and 2) at large buyer/industrial processor exporter level. Wula Nafaa's initial response given the short horizon for project activities has been to use its US\$ 1 million small grants facility (of which \$400,000 remains). The small grants facility should be used during the final year of the Wula Nafaa project or during any extension period for financing 1) experimental activities such as the introduction of new products, 2) small capital investments (hygienic premises for product quality, small processing machines, etc.), and 3) start-up capital for high-risk innovative activities for new forest or NTA products. A small grants facility is a supplement to (and not as a substitute for) credit arrangements described below which focus mostly on working capital and are short-term in nature.

Wula Nafaa needs to facilitate producer organizations' access to credit for working capital to buy products from their members and from non-member producers and to finance holding this product long enough to arrange for pick up of the product by partner buyers who negotiated to pay premium prices. Some small processors (particularly those dealing with cashews) need working capital to finance product inventory acquired during the buying season and consumed gradually over the remainder of the year in processing into finished product. Wula Nafaa has already negotiated a protocol with Crédit Mutuel du Sénégal (CMS) and was working on procedures to implement credit operations at the time of fieldwork for this mission.<sup>18</sup> If possible, agreements should be sought with multiple microfinance institutions so that groups are able to negotiate the best terms possible based on agreements sharing risk; portability of guarantee schemes would encourage competition. If possible, DCA support to assume some of the risks born by microfinance organizations should be sought; program design should take account of the fact that these institutions are in direct competition with commercial banks in Senegal for the same customers.

The need for major marketing finance for large buyers, processors and exporters has been noted elsewhere in this report. Marketing finance to a single or small number of firms is an extremely efficient and low cost way of getting credit out to rural producers. Thanks to the efforts of Wula Nafaa, partner firms already have well established marketing links with producer organizations, know the volumes and qualities of product they are capable of producing and the amount of pre-finance they can be trusted to manage to buy product from their members and from non-member producers. Buyers are in a position to recover advances through marketing offsets; this is a highly effective means of loan recovery where producers and buyers have a long-term relationship which both are interested in preserving.

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<sup>18</sup> However, the credit consultant was not available to meet the team during this mission due to his schedule and the teams own tight schedule.

A credit person would have to be hired to establish and to manage credit facilitation work.<sup>19</sup> Outside consultants might be needed periodically to design guarantee systems or to improve credit systems used in this activity.

2. Economic Analysis: A staff economist should be hired to monitor world, regional and national markets for targeted products and niche markets for minor products locally important in one or more regions served by the project. A product such as karaya gum which is extremely important in large areas covered by the project is a clear candidate for a study on expanding opportunities in the world market beyond those currently available within Senegal, as well as to deal with the issue of over taxation and possible cross-border trade in gum.

Other products like cashews also need study. Partner firms are largely targeting the local market whose capacity to absorb Senegal processed cashew production is believed to be 1 MT per month (12 MT per year) whereas FAO gives 2004 raw cashew production as 4,500 MT.<sup>20</sup> No processing firm is yet well-established in the international trade in raw cashew kernels which is the main outlet for the growing volumes of raw cashews nuts beginning to come out of Senegal and neighboring countries. Encouragement for the establishment or entry of firms capable of transforming monthly container loads of kernels for export might be encouraged. In view of the recent dramatic reduction in world cashew prices (in excess of 40%), a study of the world market is also urgently needed before more resources are dedicated to encouraging this product despite its environmentally favorable qualities for a project such as Wula Nafaa's (tree crop, natural fire-break, etc). Other products like baobab are also facing fluctuating international prices as exporters and the producers they buy from determine appropriate product quality and sales prices; such products might also benefit from further study of their markets. Minor products locally important within current or new project regions would also require studies commissioned by the project even if carried out by consultants. Some cooperation with SAGIC can be expected, but given that project's mandate, much work in economics and marketing of the kinds of products of interest to Wula Nafaa will have to be done by the project itself and thus it will require a staff economist to carry out and manage this work should a second Phase of the project be carried out; in the meantime, short-term assistance from consultants in this field could suffice for the remainder of the current Wula Nafaa project.

3. Financial Management and Audit Function: The kind of training in BDS services and hands-on support for some time by project facilitators is essential to developing financial systems and management and control skills of both producer organizations and local governments. The WN Annual Report for 2005-2006 shows dramatic increases in revenue for producer groups assisted by the project, reported to be 102% higher than for

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<sup>19</sup> WN has a staff member who has considerable experience in credit; however, she is fully engaged by her duties in providing BDS services; in a second phase of the project, there would be a need for a full-time staff member dedicated exclusively to bolstering access to credit on the part of producers, their organizations and the companies buying major products supported by the project.

<sup>20</sup> <http://faostat.fao.org/site/340/DesktopDefault.aspx?PageID=340>

the previous year with total revenues exceeding FCFA 300 million (over US\$ 600,000).<sup>21</sup> Local governments are just now beginning to tap into very substantial financial resources derived from forest products; in some cases these revenues are measured in the tens of millions of CFA francs (tens of thousands of dollars). Resources at this level require the establishment of well-functioning control systems, supervision by external staff for a period of time, training of staff and the community in general in financial management and control, transparent reporting, and annual external audits. Unless such measures are well-established by the time the project ends, long-term sustainability cannot be assured since fraudulent management of organization or local government funds can undo the effort of the project to promote cooperation in economic activities and local government's control over and management of forest resources. No local ownership of organizations or local government institutions will be permanent unless resources are well and transparently managed and accounted for. As producer organizations and local governments become more powerful and managed more funds, investment will have to be made to assure that officers and local government representatives are well trained and members are aware of how their money is being spent and hold officers and local governments accountable for their management.

4. General Expansion of Economic Activities: The Wula Nafaa approach is by now generally accepted to be moving communities in the right direction they want to go in terms of increased earnings from forest and non-traditional agricultural products. There is a strong demand among neighboring communities for project services and to the extent that its staff and financial resources allow, the project is responding by providing at least limited services such as training in improved production technology. The MEPN is also extremely pleased with project results to date (based on a highly positive recent internal evaluation which the Ministry carried out) and would like to see the project expand to other regions.

Should a second phase of the project be determined a priority for USAID, a logical way of increasing economic benefits would be to expand into neighboring communities (which would also make the natural resource management more efficient particularly in shared forests). Part of this expansion could come with existing levels of staff as facilitators and staff reduce involvement in older areas (except for financial management) and concentrate efforts in new areas where reasonable economic potential for the types of products WN is working with; part of an expansion would require hiring new staff with similar skills (and some additional support and administrative staff). If new regions are taken on, additional staff and support staff would be required, as would new regional offices and some decentralization of project activities.

After a second phase of such a project, if experience in Mozambique is any indication,<sup>22</sup> other donors can be expected to come in with their own financing and replicate the same model in other regions with similar good results. Results achieved to date or those which may be achieved by the end of 2007 are unlikely to be sufficiently robust to encourage

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<sup>21</sup> Wula Nafaa Annual Report 2005-2006, pp. 20.

<sup>22</sup> Jeff Dorsey and Sergio Muchanga, Best Practices in Farmer Organization Promotion and Support, Maputo, Mozambique December 1999 for USAID; [pdf.dec.org/pdf\\_docs/PNACJ642.pdf](http://pdf.dec.org/pdf_docs/PNACJ642.pdf).

support by other donors nor to encourage MEPN to dedicate more of its own resources to replicating Wula Nafaa's approach in other regions of the country where it would be appropriate. It might also be possible to adapt the methodology to suit the slightly different situation faced in coastal management zones.

**Conclusions:** The approach adopted by the Wula Nafaa project had been well-tested prior to its adaptation in Senegal to the goals and purposes of the project. The project is achieving the results expected and the staff and organization have been appropriate to achieving project objectives. It should be noted that benefits to non-targeted producers in all likelihood exceed those accruing to those directly targeted by the program.

Since the approach is working, the main constraints to greater achievement lie in addressing constraints which have been identified as the following:

- Credit (working capital for producer organizations and market season loans for partner firms engaged in buying, processing and exporting their production);
- Economic analysis of existing and new products and market;
- Financial Management, Control and Audit System Support for both producer organizations and local governments;

**W5. To what extent does the local population benefit from the revenues generated by forests?**

The local population benefits significantly from forest revenues. Major increases are reported to have occurred during the time that the project has been in operation and in ways directly related to project activities. As discussed in the response to question W3 above, these increases have occurred to a greater or a lesser extent in all products targeted by the project. In addition to direct increases measured based on sales reported by groups working with Wula Nafaa, the project has been able to estimate indirect benefits achieved by non-participating producers based on increased prices obtained by all producers as a result of prices negotiated by Wula Nafaa *réseaux* becoming established as floor prices for entire regions. For methodological reasons estimates for products covered understate revenue impacts and products not covered may also be benefiting as well. Indirect benefits appear in fact to far outweigh direct benefits to targeted producers.

The Wula Nafaa project has stimulated interest in forest products by allowing those engaged in collecting them based on higher average prices and a higher percentage of final product price obtained by producers as a result of project efforts to organize producers to bulk up products, to improve product quality, and to follow production technologies which encourage buyer loyalty and durable harvesting of targeted products. In some cases value has been added by improved drying and processing; in one case by harvesting baobab fruit and leaving the fruit in the pod to dry instead of processing it (dehusking and drying). In the case of baobab, producers have also benefited from a reduction in the tax on dried baobab fruit (from FCFA 25 to FCFA 15 per kg) which has allowed buyers to pay a higher price and has encouraged women to take their product directly to market in Dakar; fraud has decreased to such an extent that tax revenues have actually increased despite the reduction in the tax rate.



**Conclusions:** The local population has received substantial benefit from revenues derived from the forest. These benefits have stimulated increased interest among the community to protect forest resources and community members are taking measures to participate in the surveillance necessary to assure continued and improved access to resources and to the benefits derived from them. Bush fires have decreased dramatically and revenue from fines has also fallen dramatically as people see it being in their interest to follow local rules, now being embodied in local conventions. Economic success in communities targeted by the project has stimulated demand in adjacent communities, to which Wula Nafaa is responding to the extent that its resources permit. Success with targeted products has encouraged producers to propose additional products of local importance for support by Wula Nafaa, and the project has given some limited support to these products at least at facilitator level. Success in the economic sphere has been the key factor to stimulating interest in the other two legs of the nature-wealth-power tripod.

**W6. What has been the economic impact of the Wula Nafaa program on villager's living conditions? Does the program impact differently the village population segments, including women, youth, and adults?**

Living conditions are only now beginning to improve modestly as a result of increased confidence that improvements in revenue are likely to be permanent rather than one-time or, at best, only temporary. Producers are less likely to spend increased income which is perceived to be transitory than income increases which are perceived to be permanent. Food availability during the hungry season (*période de soudure*) is reported to have been improved since some products like madd provide revenue during the worst of time of shortage and some women's groups distribute advances to their members which are used mostly for increasing the availability of food for the family, particularly for children, during the time of scarcity. Much of the increased income so far, however, has been reinvested in the same businesses which producers are engaged in or used as working capital or invested in other business, including buying small ruminants, which constitutes a form of savings and investment. Some bicycles are also purchased, and are used mostly for transportation related to business activities.

In communities in two different regions (Kolda and Ziguinchor), respondents interviewed in the course of fieldwork, pointed out that the availability of income-generating activities related to the forest was providing an outlet to the energies of young people, a source of income for them, and an alternative to emigration. The elderly no longer strong enough to engage in rigorous agricultural activities, are able to earn some money from collection of forest products, including tapping/karaya gum collection.

Women were the major beneficiaries of many of the processing activities supported by the project and appear to have received a share of project grants disproportionate to their numbers. Many of the processing activities (making jujube cakes, producing good-quality baobab powder, etc) require enclosed workspaces housed in well-constructed buildings with tiled surfaces on which to work (in order to keep out wind-blown dust and sand and to maintain a high level of product hygiene). Without the investment in these premises, product of a consistent and acceptable quality cannot be produced and women would be precluded from the revenues they derive from these activities. Wula Nafaa has also

invested in the purchase of 8 fonio dehulling machines which are shared by producer groups; prior to the acquisition of these machines, women dehulled fonio 2 kgs at a time by pounding it for an hour in a mortar and pestle. The expenditure of women's time and effort on this laborious process was the major bottleneck to expanding production, which has been a major benefit to women involved in processing fonio into a pre-cooked ready-to-eat product with an expanding and profitable market. Wula Nafaa may be required to make additional investments in both premises and machinery in the absence of medium-term credit systems, in order to provide the necessary conditions for the expansion of these profitable activities for women's groups. Wula Nafaa had a credit consultant working at the time of the evaluation team was in country; his task was to help set up a system to allow producer groups and *réseaux* to gain access to credit; however, the credit program was not in operation at the time of the evaluation team's mission in Senegal.

Karaya gum production rose rapidly during the early 1990s and was estimated at between 2000 and 2500 metric tons (MT). More recently E&F reports production to have fallen below 1000 MT in the late 1990s and to range between 1000 and 1500 MT from the year 2000 to the present; however, the tax rate also doubled from FCFA 50 to 100 per kgs, and the reduction may simply be a statistical fluke representing very significant evasion in response to this dramatic tax increase. (Data from buyers, if they could be obtained, might help determine production trends for this product; in any case, the importance of this product over a wide geographical range is well established.)

Karaya gum production was traditionally a male occupation in *Fulani* villages in the past, where men owned the trees grow in their fields within the forest; most was performed by Guinean workers who came into Senegal for the specific purpose of carrying out this task, sponsored by a tutor whom they paid for food and lodging and for his introduction to the village chief who gave his permission to carry out this activity. Among the Mandinke, trees are not owned but use rights are conferred annually on whoever first taps them; women have a much larger role than in *Fulani* villages. The average price of gum increased in response to Wula Nafaa's success in organizing producers, helping them to negotiate better prices with Setexpharm, and to improve average quality of rainy season gum through improved tapping technique and reduction in contamination. Outsiders (foreigners and people from outside the community) have been largely displaced by the local population.<sup>23</sup> Higher average prices and a guaranteed market have stimulated interest in the product, for which Setexpharm is the major purchaser (buying perhaps 70% of production for Norgine (France) for the production of a laxative called Normacol. Most of the remainder is sold to Socogomme and a small quantity to an independent trader. Total exports amount to about 1,000 MT; domestic consumption (mostly for couscous) accounts for another 500 MT; exports from India are approximately 3,500 MT and product quality is generally superior to that of Senegal. With good prices and growing demand, interest in some communities has grown to the point that the entire community is involved in gum production, meaning that benefits of increased revenue are being shared also by women, young people and the elderly. Karaya gum is taxed more heavily than any other forest product on a per kg basis: FCFA 100 (US\$0.20) forest tax," illegal taxes" extorted at road blocks of FCFA10-15 (2-3%), and municipal market tax of

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<sup>23</sup> FRAME, Étude de Cas sur les Produits Naturels: le Laalo Mbepp au Sénégal, November 2005, p. 25.

FCFA 100-150 (US\$0.20-0.30) for gum sold locally for couscous.<sup>24</sup> A communal tax of FCFA 72 (US\$0.15) was also collected at Bargny but this tax has reportedly been eliminated with recent effect. Prices paid to producers would rise substantially if taxes were reduced.

**Conclusions:** Substantial improvements in revenue as a result of economic activities organized around improved marketing, better quality and value-added processing as a result of the Wula Nafaa program are a relatively recent phenomenon. Average yearly revenue per producer is very high and was estimated at FCFA 268,000. (US\$541)<sup>25</sup> Part of the additional revenue is going to improved nutrition for the family, particularly for the children, and to meet other needs during the time of the year characterized by scarcity. Major accumulation of assets has not yet occurred due to the newness of these changes, the investment of a significant part of proceeds in the same or other income-generating activities, and uncertainty among the population that revenue increases will be long-lasting. Once activities have expanded as a result of Wula Nafaa and have been carried out successful over a number of years, it is reasonable to expect communities to make use of a larger proportion of these revenues to improve their standards of living.

Revenues are being shared widely within the communities. If anything, many of the activities supported by Wula Nafaa disproportionately benefit women, the elderly and young people. Young people derive significant revenue from the harvesting of madd, particularly in Kedougou and Ziguinchor. Women are the main the primary producers for jujube, palm oil, netetou, fonio and baobab. Women also tend to be most heavily involved in activities involving value-added processing; Wula Nafaa investments using its small grants facility have been instrumental in making many of these businesses viable by providing premises or processing technology necessary to achieve a high-quality product as demanded by the increasingly sophisticated Dakar market and overseas African markets.

## **Improving natural resources management and biodiversity (Nature)**

### **N1: How effective is the control and oversight of local collectives on forest use, including both forest reserves and community forests**

The interviews carried out with councils as well as with forestry services have highlighted the insufficiency of local government initiatives in monitoring and managing forests prior to the Wula Nafaa project. Various reasons have been raised but among the most stated are: the lack of knowledge of the forest code at the community level; the absence of technical and financial means to better organise and control forest lands; the absence of a relatively long term vision; and the poor communication between communities and the Forest Service (FS).

Due in part to the inexistence of collaboration mechanisms with the communities, the FS had become lethargic in the exercise and fulfilment of their responsibilities in forests resources management. Their role was thus confined to administrative tasks such as issuing permits required for any forest exploitation (in traditional areas as well as

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<sup>24</sup> FRAME, Étude de Cas sur les Produits Naturels: le Laalo Mbeppe au Sénégal, November 2005, p. 10.

<sup>25</sup> FRAME, Étude de Cas sur les Produits Naturels: le Laalo Mbeppe au Sénégal, November 2005, p. 1.

monitored production areas); and expressing their views on land clearing, quota distribution and hunting rights issues. Paradoxically local governments and communities were not even involved in the monitoring and surveillance of forest operators who have received hunting and felling permits within their lands. They could thus see forest resources being destroyed by those operators whose activities were beyond their control and apparently beyond the control of the FS. This created a feeling of frustration in the communities that did not encourage their involvement in the conservation of their forest asset base.

It is within this background that WN program has undertaken support activities in favour of the communities in terms of clarification of procedures required for the preparation and effective implementation of management plans approved by the Forest and Water services. These procedures also allow a more important community involvement in the use and development of forest reserves and community forests.

Between 2003 and 2006, WN has facilitated the development of 24 local conventions (16 in implementation stage and 8 in approval stage) and four forest management plans (one has been completed and approved, three are underway). The whole area covered by the rural councils that have developed natural resources management plans now encompasses 3,069,806 ha.

These local conventions and forest management plans represent important land management tools which help provide a vision for the future and contribute to bridging the gap between local government institutions and the communities. Indeed, the communities, organized in village management and development committees (VDC or VMDC)<sup>26</sup> under these codes, are now responsible for the monitoring and controlling activities of the forests use with the support of the FS and Rural Councils. As an institution, the VDC is under the tutorship of the Rural Council that supervises the surveillance activities<sup>27</sup>.

In almost all the Rural Councils where local conventions and codes are beginning to be implemented, the community efforts in the organization, surveillance and control of products that are gathered from community lands and forests are under the direction of

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<sup>26</sup> The terms used for village committees established to help execute local conventions and forest management plans are not consistent. Therefore, to simplify these differences for the reader, the term Village Development Committee (VDC) will be used for all community management committees. The term IVDC (Inter-Village Development Committee) will be used for all inter-village development and management committees. The term Surveillance Committee will be used for all committees responsible for surveillance. The French term “surveillant” will be used for a person who serves in a surveillance function.

<sup>27</sup> USAID comment: Local Conventions are legally recognized documents that really haven’t withstood many legal tests. There is no central registry (at the central or regional level) for local conventions so there is a risk they may be forgotten in time or contradict a new, future convention. Some work needs to be done to make sure the local convention can live up to the tests of time. This could be as easy as assisting the regional council to set up a repository for local conventions or assisting government to standardize the process for developing and approving conventions.

the VDCs. VDCs are also responsible for the fight against forest fires, cattle wandering, and cattle theft. As an incentive, the VDCs receive a portion of the revenues generated by the fines paid by offenders. These portions may vary widely from one area to the other (40% in Sinthiou Malem, 15 % in Goudiry).



Villagers discussing surveillance problems, Kolda Region

The difficulties that these committees face in the performance of their duties are mainly related to the lack of means of transportation (for surveillance and travel to meetings) and communication, and the inexistence of uniforms and badges. Moreover, the *surveillants* have not yet gotten the legitimacy they should have through delegation of authority from the RCs which are responsible for resources management under the decentralization law. They must work in close collaboration with the FS agent who is the only person authorized to issuing “*proces verbal*”. They have no authority in enforcing rules stated in the

conventions. In spite of these difficulties, the committees are functioning and are, above all, motivated by the visible impacts of their efforts in the enhancement of forest production, as they take advantage of this improved situation themselves.

Among the RCs visited, those of Sare Bidji and Sakar are the ones with the most encouraging performance in terms of their NRM activities. In Sakar, after just one year in operation, the committees have achieved the following:

- The opening of firebreaks in 11 village within the RC;
- Delimitation of cattle tracks and grazing areas in Sakar and the identification of 7 other tracks for delimitation;
- Fines amounting up to 350 000 FCFA (approximately US\$700) of which 47 000 CFA (US\$94) was granted to the *surveillants*.

**Conclusions:** It must be realized that the control and monitoring system is just at its beginning (only one year or less in operation) but has been widely approved by the rural communities and the populations who can see it is in their interests (as demonstrated by the importance of the revenues drawn from the forest over the last years). However, the CVD who have been granted powers by the Rural Council are facing various constraints: lack of transportation and communication; lack of legitimacy and insufficient knowledge of the Forestry Code, lack of training in administrative and financial management. These committees still need a lot of support so they can fulfill their mandates.

In that respect, the rural councils, the village chiefs, the FS and all the other rural development technical services (livestock, farming and fisheries) should provide more support in terms and motivation and advice. Fortunately, WN is aware of these concerns and has planned for 2007 various training sessions aiming at building these committees’ technical capacities

**N2 : Are there any physical or socioeconomic impacts brought about by the project in terms of resource harvesting methods (such as karaya gum)**

The producers active in organizations involved in the harvest of forest products have been trained and sensitized in the practices of sustainable harvesting of forest fruits (gum, madd, etc).

In the particular case of gum whose harvesting requires incisions, the adoption of good practices has been established as a general rule in the various local conventions under which the use of fire (to encourage heavier gum flow) is banned, harvesting is authorized exclusively by the Village Committee and incisions follow practices recommended by Wula Nafaa.

It is still too early to assess the benefits derived from following such practices. However, better tapping combined with the reduction in the use of fire will have a positive impact on the health and productivity of the trees. This would be far from the heartbreaking picture depicted by Susan Gannon of her May 2003 field trip in the Tambacounda area: “we can see that lots of dead *Sterculia* (Karaya gum trees), on account of over-exploitation; those trees carry deep holes and there are evidences of forest fire under them; almost 3 trees out of 10 are in that case.” The use of the newly disseminated techniques will definitely reduce the death rate among the trees. Regulation of the activities of *transhumants* and restrictions on wholesale cutting of branches and young *Sterculia* trees will promote increased production and increase the pace of regeneration of the stock of these trees. The use of enhanced harvesting practices, the selection of trees and the specification of the harvesting season will definitely contribute in improving the quality of the gum harvested, the hygiene of the product and its preservation during storage and transit. This will help producers to target more discriminating buyers and to increase their revenues.

At the socio-economic level, changes in behavior are already evident as village committees enforce rules they have established in Local Conventions and as village populations see that these changes are to their benefit and they comply with the new rules. The evaluation team was told by several village groups that local compliance was very strong and any problems in enforcement of LC rules were due to incursions by non-residents. As discussed in more detail above, some of the lower socio-economic strata of the community – women, the elderly and youth – appear to be beneficiaries of the NWP approach and may receive disproportionately larger shares of the economic benefits of sustainable harvesting of forest products.

**Conclusions:** The forest products harvesting techniques presently disseminated by WN are very much appreciated by the producers because they offer opportunities for the preservation of the physical state of the trees and help ensure production quality. With respect to the harvesting technique for karaya gum, which is more complex than for other products, it is necessary to train the producers networks on the most sophisticated harvesting techniques. In that respect, the implementation of the results of the exchange trip carried out to India has become a priority. Moreover, the program should set up, in

collaboration with research institutes, an arrangement that would help to monitor the behavior and productivity of the gatherers and their families in the harvesting zones.

### **N3. What are the effects of local conventions and management plans on forest and biodiversity conservation?**

The implementation of local conventions and forest management plans has just started in most of the rural communities. However, in collaboration with the actors, it has been possible to ascertain the likely direct and indirect impacts of the preparation and implementation of these plans.

Indirect impacts can be seen in the acceptance of community responsibility for biodiversity conservation. As for the direct impacts, they are mostly related to the enhancement of the natural regeneration process of the vegetal and animal species, and the preservation of the ecosystem.

**Indirect impacts:** The development of local conventions has been a process marked by intense activities of information, training, dialogue, and awareness raising of the communities and other actors (technical services agent, local governments and administrative authorities). The communication focus has been on the factors that contribute to the loss of the biodiversity in the various locations, as well as the forest code and decentralization texts provisions applicable to the management of natural resources (estate law). The objective is to bring about a thorough change of behavior by encouraging both a personal and a collective commitment for the preservation of their natural resources...

In that respect, the evaluation team was pleased to hear about the already significant impacts related to the communities commitment in: (i) the tightening of the protective measures of forest species with the listing of forest species to protect ; (ii) the organization of joint action meetings on the management of forest fires (twice a year) ; and (iii) the funding of activities related to the development of forest tree nurseries and surveillance committees funded from the revenue generated by the enforcement of the conventions (fines, exploitation).

Clearly the use of exchange visits has raised the awareness of the limited lifetime of the natural resources. This has led some communities who visited other regions of Senegal to develop stronger natural resource preservation and management reactions, in order to avoid the alarming situation prevailing in the Northern and Central regions of Senegal where there are no more forests.

It is above all necessary to highlight the important project impacts in the enhancement of the equipment and operations of the Forest Services in terms of technical means reinforcement and scientific capacity building for the staff on cartography and forest resources inventory. Indeed, the equipment provided to the FS by WN has made FS more operational in the delineation of forest lands, the knowledge of the forest's biological opportunities and the planning of their exploitation. With these tools the FS has participated in developing a simple community forest working and management plan that

is being implemented in Koulor. This participatory management plan is a real decision helping tool in so far as its consensus building process favors the resort to collective effort for the sustainable management of the targeted forests (Saré Bidji, Balmadou, etc). The strategy being put in place is to develop land-use plans for each rural community whereby forests with high potential for management are identified by the community and earmarked for management. Farming is forbidden in the forests and grazing is controlled in forest covered by management plans.

**Direct impacts:** The direct impacts on biodiversity are not yet noticeable in the field after only 2 years of application of the first conventions. However, the actors involved in the conservation activities can see some indicators and trends towards a return to better land and forest conditions. The enforcement of the conventions has already had positive impacts on the improving harvesting practices, reducing the frequency of forest fires, and reducing illegal logging and overgrazing.

The most noticed impacts related to enforcement of the local conventions are:

***Enhancement of the habitats and vegetal species preservation.***

The adoption of “feu precoc” (controlled burning) practices, the enhancement of fruit harvesting techniques, and the significant reduction of forests fire frequency (by at least 50%) have contributed in the preservation of habitats of forest and agro-forestal species. The species that have most profited from these measures are: *Saba senegalensis* (madd) ; *Landolphia heudeloti* (tol), *Parkia biglobosa* (nééré), *Butyrospermum parkii* (karite), *Oxyanthra abyssinica* (bambou), *Borassus aethiopium* (rônier), *Manguifera indica*.

Moreover, with the reduction of forest fires, the populations of various locations in the project area have started to develop orchards for the plantation of mango trees, citrus fruits trees and other arboriculture species.

***Enhancement of animal and vegetal species regeneration process***

The above impacts result from the combined effects of the reduction of forest fires and the increased opportunities of dissemination of ripe fruits by men and animal species. The development of an effective regeneration process has been recorded for species such as the *Saba Segalensis*, *Oxytenanthera abyssinica*, and *Borassus aethiopium*. As for animal species these conservation dynamics may favor the expansion of fauna population - antelope, the warthog and monkey- and probably other species from the border area with Guinea. PGIES project staff working with communities that border the Niokolo National Park already report increased numbers of fauna circulating in these regions.

***The reduction of the pressure on the forests***

The enforcement of local conventions and forest management plans in the nearly 3.1 million hectares already covered by the Wula Nafaa project have helped mitigate the pressures on the forests. These parceled out forests represent a strong barrier to farming and grazing expansion and thus contribute to the preservation of biodiversity in the concerned forest lands.



**Conclusion:** The various testimonies stated have highlighted positive change in the state of biodiversity and habitats, as a result of the control and surveillance activities that have contributed in the reduction of forest fire frequency, poor gathering practices and ranching pressures. These are regarded by the actors as the most significant indicator of biodiversity and of the quality of forest management in the various locations. These forests are getting more and more productive, the revenues drawn from their exploitation is increasing and there is a revival of the local economy.

Knowledge of these impacts should be widely diffused so that forest resources can be used sustainably in most rural communities where forests are threatened on account of encroachment and land claimed for farming, where overgrazing and forest fires prevent trees' natural regeneration, and where logging for charcoal exploitation and firewood leads to land degradation and the loss of woodlands.

However, the actors enforcing the local conventions and forest management plans should be more motivated and should have their capacities developed to address the issues in terms of decentralization of natural resources management.

**N4: How do current policies on natural resource management and biodiversity, including the local institutional resource framework, affect Wula Nafaa's impact?**

Issues related to the impacts of NRM policies and the institutional framework for implementing those policies have been recently addressed in detailed surveys which have culminated in a summary of desired policy reforms.<sup>28</sup> A consultant has diagnosed the situation and proposed remedial measures which are being submitted to a Task Force that includes representatives from the Department of Waters, Classified Forests Conservation, and Hunting (DEFCCS). The most quoted limiting policy factors identified during evaluation team interviews and group meetings are:

**A. Policies**

**Shortcomings of the forest products taxation system;** With the development of the forest products chain, new products such as unshelled baobab fruit (*bouye*) and the powder of the same fruit are in high demand by processors. These products are not found on the list of gathering products and therefore their level of taxation is presently a matter of negotiation with each local forest service agent. Specific inclusion of these products in the list of taxed products with appropriate associated tax rates will facilitate their marketing and sale.

**Control of generated revenues by the State:** Strenuous efforts by VDCs and other community organizations to control and manage access to forest resources have resulted in the reduction of fraud and in the increase of the revenues. However, these revenues are largely controlled by the Forest Service and have yet to benefit the rural communities in any substantial way. Changes are necessary that will provide financial support and will act as incentives for further VDC activities.

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<sup>28</sup> Axes d'Orientation pour l'Elaboration des Textes sur la Fiscalité Forestière, Alpha Seybatou Djigo, Nov. 2006.

**Difficulties in the planning of early forest fires:** The procedures that the local conventions must follow when determining the timing of early controlled burning; current procedures to get permits for controlled burning are lengthy and complex. Their full application sometimes means that burning cannot be done when it is needed.

#### Institutional level

**Delays in the transfer of revenues generated by Local Conventions and Forest Management plans to the rural council, VDCs and *surveillants*:** According to the latest Forestry Code, 70% of fines are to be returned to the local communities but the system is slow and lacks transparency. Time and again, the VDCs brought up their concern over delays in the return of revenues to local government. There should be no significant delay (no more than one month in their view) between the time that revenues from fines, fees and permits are provided to the Forest Service and then to the local government Treasurer and the time when pre-designated percentages of these revenues are passed back to community institutions (VDCs, IVCDs, Surveillance Committees). Better still would be for local authorities to retain their share of revenue and only forward the balance to central government.

**Limited transport facilities available the forest service agents:** The FS still needs to be properly equipped to address the development issues raised by Wula Nafaa. The existence of strong forest inspections with appropriate transport and operating budgets is essential to facilitate the implementation of forest management plans and for the conservation of forest and natural resources within the region. Indeed, because of the lack of transport, the field control and verification of the relevance of the complaints addressed to forest services are rarely carried out. This can result in arbitrary enforcement.

**Limited powers and capacity of VDC and “*Surveillants*”:** The absence of institutional legitimacy for the surveillance committees that work on a voluntary basis and who often must negotiate regulations with trespassers regarding the application of the rules of local conventions is likely to quickly discourage them and to compromise the full application of the local convention rules. Reinforcing the power of these committees and *surveillants* should be a high priority if the credibility of the local conventions and forest management plans is to be retained.

**Weakness of the institutional capacities and lack of commitment from the Local Councils:** The proper execution and enforcement of a local convention requires a strong commitment from the Rural Council, especially from the commissions’ chairmen for environment and estate. The Council is ultimately responsible for the coordination of the local convention, the implementation of the convention, and the supervision of surveillance committees. In that respect, they have not yet shown that they have the capacity to carry out their responsibilities based on a thorough understanding of the basic texts of the forest code and local conventions’ regulations and popularizing the basic texts and convention regulations.

**The weak emergence of a dynamic local civil society:** There is presently a paucity of local organizations able to build up a dialogue with the RC and FS and willing to close promote community-based natural resource management issues fostered by Wula Nafaa. At present in the absence of CBOs, the VDCs present the best opportunity to play this catalyst and consultative role at the community level. Building these committees' capacities in terms of advocacy and decision making would help them to fulfill the missions expected from a civil society.

Some observers feel that Senegalese central government actors continue to oppose effective decentralization. Ribot<sup>29</sup> argues that in Senegal and elsewhere central government ministries often transfer insufficient and/or inappropriate powers, and make policy and implementation choices that serve to preserve their own interests and powers. These researchers also point out that even when powers are devolved, local organizations and institutions are not immune from misusing them and they may be captured by local elites or political brokers who may receive "rents" from non-enforcement of regulations.

These problems, identified in countries even where decentralization is relatively well advanced, can be countered by the presence of an active media, an attentive civil society, effective judiciary and structures that require both upward and downward accountability.

**Conclusions:** Addressing the political and institutional shortcomings likely to affect the outcomes of WN program activities would also address the issues related to the responsibility of the rural communities and to the decentralization of the State's powers and means. To meet these challenges, the government's will to decentralize the management of natural resources should be patent at all levels. This will be given effect through:

- The institution of an active dialogue between Local Governments and village committees ; capacity building of the various actors in terms of advocacy, organizational skills, decision making, planning and implementation;
- The legal recognition of the local management structures (VDCs, IVDCs);
- Government provision to the Rural Councils and Forest Service with the material and financial means to carry out their missions and competencies.

## **Improving decentralized governance of natural resources (Power)**

### **P1. To what extent has Wula Nafaa built capacity of targeted local institutions including local governments, village development committees, commodity-based committees, and producer federations?**

Wula Nafaa is not designed specifically as an institution-building project. The project did not choose to prepare a comprehensive plan for strengthening the four key institutions listed in the question above, however it has continued to address the needs of those institutions as key elements of the Economic Benefits strategy and the Rights and Responsibilities strategy. The project did not carry out institutional strengthening

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<sup>29</sup> These points and others in the following paragraph are found in several publications by Jesse Ribot (see Annex III) and most recently in the November 2006 issue of World Development which is a special issue devoted to "Rescaling Governance and the Impacts of Political and Environmental Decentralization".

analyses comparing the initial skill levels of local institutions with the increased skill levels needed for the institutions to carry out their projected tasks. This makes it difficult to evaluate how much institutional strengthening has been accomplished to date. However given the broader results of the project to date, it is clear that a great deal of institutional strengthening has been accomplished. At the same time, it is evident that all of the local institutions will continue to need support for several more years before they can function without outside support.

Institutional capacity has been increased via a variety of inputs from the Wula Nafaa project team: a) the day-to-day counsel and training provided by facilitators; b) formal training sessions; and c) execution of the steps needed to accomplish project goals (i.e. design and execution of local conventions, forest management plans, improved management of local resources, increased access to markets).

Economic institutions: In the case of the economic component of the project, although the needs for institutions working with each of the ten products are somewhat different, there have been clear steps carried out in strengthening local producer groups. These include literacy training as needed, value-added training, training in group organization and management, improved crop harvesting and production techniques, negotiating and marketing skills training, quality control and finally business skills training, use of the web to market products, and improved knowledge on how to access and manage credit.

Producer networks have also been strengthened as part of a component-wide strategy. Support for these new organizations has focused on improved techniques in transforming and providing value added to targeted crops, marketing and negotiation skills, sustainable production techniques, and recently bio-production techniques. Future training for both producer groups and producer federations will need to focus on issues of institutional governance (periodic election of leaders, transparency in decision making and financial management, etc.). In addition to training, producer federations, networks and groups are being put into contact with large traders and processors actively engaged in buying Senegalese non-wood forest products; this type of networking is expected to continue as an important activity during the time remaining for the Wula Nafaa project.

In its reporting showing progress towards contract indicators of achievement, Wula Nafaa reports that 3327 economic enterprises have received some forms of training or assistance from the project thus far, almost reaching the end-of-project target of 3400.

Village level committees and local governments The Rights and Responsibilities project component has focused primarily on strengthening three village and inter-village level organizations: 1) Village Development or Management Committees (VDCs); 2) Inter-Village Development Committees (IVDCs) that consist of members of several VDCs, and; 3) Community Surveillance or Surveillance Committees. These groups are responsible for the effective execution of the Local Conventions that have been elaborated by local communities over the course of a year. Once again, the project has provided support to these usually young institutions via facilitator support, formal

training and the joint accomplishment of shared goals such as elaboration of the Local Convention or a forest management plan.

Initial training for community leaders has been provided, region by region, in a comprehensive two-day training course targeting village chiefs, mayors, Rural Council environment committee members and other elected officials and leaders. This initial training, which appears from the syllabus to be very participatory, includes discussion of decentralization, community responsibilities under the “texts” of the decentralization and forestry codes, sustainable community exploitation of forest and other natural resources, protection of plants and animals, how to reduce and fight bush fires and forest management. Additional training has later been provided for forest surveillance, cutting/gathering techniques and tree nursery planting and management techniques.

The Rural Council is the local government institution that Wula Nafaa has targeted for support. As part of the decentralization law of 1996, these councils have officially been delegated increased responsibility for nine “competencies” including health, education and environment. Most of Wula Nafaa’s interactions to date with the councils have focused on their environment sector responsibilities: especially involving them in the development and especially in the RC approval of each Local Convention or forest management plan. In addition, Wula Nafaa has provided training for understanding the “texts” of the decentralization and forestry codes, the sustainable management of natural resources (211 trained), and how to set up and run council committees (285 trained to date). A few of these councils had previously benefited from broader institutional support and training provided by USAID’s now terminated DGL Felo democracy/governance project.

Wula Nafaa project leadership has recently discussed using the final year of the project to provide broader DGL Felo-like support to three pilot Rural Councils, chosen because of their relatively good institutional strength and leadership. The project has identified RC weaknesses in:

a) financial management, b) transparent decision making, c) budgeting; d) planning, and e) effective use of committees by the RC. However, until the project carries out more formal institutional assessments of RC capacity in comparison to its designated responsibilities, it will be difficult to assess the costs and relative benefits of future WN attention to the across-the-board strengthening of Rural Councils.



Meeting of Rural Council, Kolda Region

### **Conclusions:**

- Wula Nafaa is not designed as an institutional strengthening project, but carries out these tasks as a means of achieving broader project objectives;
- A great deal of institutional strengthening has been accomplished but all of the local institutions will continue to need some additional facilitator guidance and training for several more years before they can function without outside support.

- Institutional strengthening for economic institutions (local producer groups and producer federations) has been well focused and well timed and good progress has been made strengthening these young organizations.
- Institutional strengthening needs for governance institutions (VDCs, IVDCs, RCs) have not been carefully assessed; thus it is hard to measure progress to date; however most of the focus has been appropriately on community-level rather than local government institutions.

**P2. Is there evidence that local governments have actively taken on management responsibility for local forests and resources?**

Rural Council: Wula Nafaa has worked with the major local government structure, the Rural Council, to encourage their increased responsibility in managing local natural resources. The roles of the Rural Councils are linked closely to Local Conventions and village/community –level management units, such as Village Management and Development Committees (VDC). The ability of Rural Councils to carry out their environment-related responsibilities is a function, in part, of their level of education (some members are functionally illiterate) and their level of training.

What would be the major indicators that Rural Councils are actively taking on management responsibilities? Several indicators, discussed below, were discussed by the evaluation team with project staff. Although there are no statistics available to measure progress towards these indicators, some evidence was gathered from visits to project sites and interviews with facilitators and project technical officers.

- a. RC participation in the development and approval of Local Conventions: 16 Local Conventions have been approved to date and 8 are in final stages of development approval. Rural Council members have normally played an active role in the design of these documents; and have always been required to approve them. In some cases, council members, unsure of their newly delegated responsibilities, reported that this process “gave them something to do” and provided a model on how they could work jointly with local communities on some of their other “competencies” such as education and health.
- b. Rural Council funds allocated to environment activities and to ensure the functioning of the local conventions. As discussed in more detail below (Power question 5), very little revenue has been generated to date from new local conventions or forest management plans; therefore it is too soon to know how well the RC will manage their portions of these funds in support of environmental activities. Funding provided to the Rural Councils from central government sources (Fond de Dotation) has not been used for environment activities, according to the presidents of Rural Councils interviewed, but has been used to build school classrooms, wells and health facilities.
- c. Rapid and just Rural Council resolution of natural resource problems that have brought to them by communities There is no evidence to date on whether Rural Councils will be able to resolve community-level issues or issues between a community and the Forest Service in an efficient and equitable

manner. In most cases, Rural Councils have established environment sub-committees, but the roles and responsibilities of these sub-committees are not clear in relation to conflict resolution, budget planning or spending.

### **Conclusions:**

- It is too early to determine if Rural Councils have actively taken on management responsibility for management of natural resources;
- One positive sign is their significant participation in the Local Convention planning and approval process;
- Other indicators of their responsibility will be: a) their willingness to allocate un-earmarked funds for environment activities; b) their willingness to quickly and fairly resolve local community and regional environment/conservation problems that come to their attention and c) their success in implementing the local conventions and forest management plans which have only recently gone into effect.

### **P3: Have community members achieved an appreciation of the concept of community ownership of the sustainable management of their natural resources?**

In broad terms, the answer to this question is clearly “yes”. Although Wula Nafaa has not developed specific indicators that measure increased community ownership, these might include: a) level of participation in development of Local Conventions; b) participation in village level committees established to implement the LCs; and c) behavioral changes related to natural resource management.

Level of participation in development of Local Conventions: Wula Nafaa’s approach to the design and approval of Local Conventions has been a deliberate step-by-step approach with a great deal of local participation. This 11-step process typically has taken 12 months. Communities have been actively involved in assessing the biophysical state of their natural resources and analysis of how these resources have been used by the local populations. Communities are also involved in deciding how to divide their land into zones, and especially in decisions on the rules for control and use of the natural resources. In the larger communities found in the Ziguinchor region, between 200-300 people would attend community meetings to discuss these issues. These meetings were also used by Wula Nafaa to explain the “texts” of the Decentralization and Forestry Codes to villagers so they would know their rights and responsibilities. Although this process includes the local chief (and eventually the *sous-prefet*), it was a clear move away from traditional hierarchical decision-making process in rural Senegal.

Village and inter-village committees: Each Local Convention and Forest Management Plan establishes, at least on paper, a number of committees responsible for execution of the agreement.<sup>30</sup> Project baseline surveys indicate that environment committees existed in many communities prior to Wula Nafaa, but were often

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<sup>30</sup> Unfortunately, most Local Conventions have not yet been translated into local languages and distributed to literate community members.

dormant. For local conventions which might encompass the land of many small villages (31 for Sakar), village committees for management and development of natural resources (VDCs) are established in each village with 10-15 members. Elected rural leaders (rural counselors) and village chiefs are always included in the VDCs. A cluster of village VDCs are linked together into IVDCs (Inter-Village Committees for Management and Development<sup>31</sup>). Also in most villages, a Surveillance Committee is established to ensure that poaching or illegal harvesting does not occur.

The functions of these committees are clearly spelled out in the Local Conventions (e.g. application of the rules, communication of the rules to the community, mobilization of people to prevent and fight bush fires, control of cattle, establishment of tree nurseries, collaboration with the Forest Service, mediation of disputes etc.). The presence of a written document, approved by the Rural Council and Sous Prefet, reportedly gives villagers much more confidence in their ability to approach and sanction non-villagers who do not obey rules now codified in local conventions.<sup>32</sup>

Even in Tambacoumba region where Wula Nafaa began its work 3 years ago, most approved Local Conventions have been in place for less than one year. Therefore there is little quantitative evidence that these new local responsibilities are being effectively implemented, although energy levels are high. The village committees' ability to effectively control trespassing, illegal harvesting and bush fires set by outsiders (charcoal-makers and wood cutters, product collectors, hunters, and transhumants) is severely limited by: a) the absence of "means" (funds and tools) to pay guard salaries, to buy bicycles or motorcycles to patrol their regions; b) the unwieldiness of procedures to bring violators of the rules to justice and c) the lack of statutory authority to back up locally appointed guards. For Forestry Code infractions, any fines must be officially sanctioned by the Forest Service, whose nearest office is often physically distant from the point of the infraction. Local guards have no means of transporting the offenders to the Forestry office nor do they have a phone to request that a Forestry officer come to the location where the infraction occurred. Even if the Forestry Service could somehow be alerted, it is extremely unlikely that an officer would have the means (vehicle and fuel) available to come to the village to apprehend or fine with culprit.

Wula Nafaa is planning to push to change the status of the "surveillants" by training them in the basics of forestry, forest control and issuing fines. Although the new Forestry Code (Article L 57) states that Village Foresters may be recruited by Rural Councils and would have the same power as State Forest Agents, the idea is being resisted by the Forest Service. This change appears essential to providing effective surveillance and control powers on a decentralized basis. It would also appear to save the Forest Service time and money (although perhaps at the cost of prestige). Ways to

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<sup>31</sup> Where community forest plans have been established, these committees are named CVGF (Village Committee for Forest Management), and CIVGF (Inter-Village Committee for Forest Management).

<sup>32</sup> In many villages, rules existed before but were not written down in an orderly fashion and nor officially agreed upon by the local government authorities, the sous préfet and the Forest Service.



resolve the present standoff should be explored, including testing the new approach with 1-2 Rural Councils in each project region.

The lack of funding also affects the functioning of Inter-Village Committees since members need some money to pay for travel to committee meetings and to deliberations of the Rural Council.

Behavioral changes related to natural resource management: Interviews with community members and facilitators provide strong anecdotal evidence that the Wula Nafaa approach has often led to rapid changes in awareness of the importance of natural resources and has led to behavioral changes. Part of the change is clearly related to increased revenues flowing from the economic benefits component of Wula Nafaa (WN estimates that approximately 15-20% of a typical village population participates in WN economic activities). Another factor encouraging change is the community's better understanding of their rights to control their resources (especially via discussion of the texts of the laws and increased literacy). As stated by one community leader talking about his community members: "now they begin to see".

Physical changes are already occurring. Village committees and facilitators report that the following changes are widespread in the older project regions:

- Bush fires have been reduced and are strictly forbidden. "Feu precoce" (early season controlled burning) is often employed to reduce biomass and to minimize the danger of massive uncontrolled fires later in the season when the forest is tinder-dry.<sup>33</sup>
- Sustainable harvesting schedules have been established and are being respected for many crops that are gathered. (allowing plants to mature)
- Villagers are planting fruit trees (mango and orange) and village nurseries are being established.

**Conclusions:** Generally, the answer is "yes" there has been a major improvement in community member acceptance of NRM ownership as indicated by strong participation in LC planning, participation in the management committees established by the LCs, and significant behavior change that indicates that the NRM "reflex" has improved dramatically; However there remain many problems in executing the LCs, especially the lack of material and financial resources and an almost unworkable system for punishing/fining law breakers. Delegation of surveillance and control responsibilities to Rural Councils and their "surveillants" appears essential and needs to be approved, or at least tested, quickly.

**P4: How can Wula Nafaa assist in increasing the speed in which forest management plans are developed and implemented – even in forests not targeted by the program?**

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<sup>33</sup> One community reported that the prohibition of bush fires had been preached in the village mosque.

To date, Wula Nafaa has completed one community forest management plan – Koulor in Tambacounda Region – only in the 4<sup>th</sup> year of the project. Two more are in the planning process ( Sare Bidji and Missirah) while in the classified forest of Blmadou, Wlua Nafaa is helping develop a local code. . One co-managed classified forest management plan - Paniates - is in the planning process. While these numbers are low and the pace of planning appears to be slow, Wula Nafaa’s record in forest management planning is already better than other donors working in Senegal. GTZ’s major forest management plan reportedly took 3 years to complete.<sup>34</sup>

Wula Nafaa staff believes that this process can be speeded up to a minimum of 8 months per plan, but that any further acceleration would be unlikely unless community participation was significantly limited. Initial steps are especially slow if community leaders are not literate and need to be taught basic literacy. The planning process is especially lengthy for large forests – for example, 22 villages and 6 temporary villages (“camps”) have needed to be included in planning for Koulor. The project and the FS have identified and resolved some of the issues which slowed down the elaboration of initial forest management plans meaning that an agreed upon process has been developed; nevertheless, undue haste could short-circuit community understanding, involvement and full acceptance of plans and must be avoided. Successful implementation of approved plans is expected to lead to tangible improvements in the natural resource base and in higher income for the community. These successes should encourage continued involvement by communities which have approved plans and encourage other communities to follow their example.

Forest Management Plans have two main parts: 1) an analysis of ecological, social-economic and administrative conditions that affect the park; and 2) a management plan for dividing the forest into units of management (blocks) and a calendar and plan for exploiting forest resources, such as charcoal. Wula Nafaa’s Guide for elaborating and executing community forest plans includes twelve planning steps culminating in plan approval by the Rural Council, Forest Service and *Sous-Prefet*. Two additional steps after approval are design of an annual work plan (which itself includes several steps) and a plan for administrative and financial management of the forest. A plan for a classified forest is similar except that the legal tool used for transferring management responsibilities to villages is a “*Protocole de Cogestion*” between the Forest Service and the Rural Councils involved.

Wula Nafaa staff, with help from the U.S. Forest Service, has identified several ways in which the forest management planning process can be accelerated to perhaps eight months:

- Utilize rapid inventory techniques devised by the U.S. Forest Service;

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<sup>34</sup> Wula Nafaa comment: “It should be noted that the program experienced some difficulties in the beginning of the program in the elaboration of a forest management plans. This was due to the fact that the program was attempting an innovative approach that promoted simplicity, reduction of costs and the participation of local populations. It should also be said that the collaboration with the forest service experienced certain difficulties in the beginning due to different perceptions of how to best achieve our goals”.

- Begin the process with a joint meeting with all concerned government technical services (versus meeting with them separately);
- Utilize improved and more efficient methods for estimating forest value;
- Increase the capacity of BICs to play a broader role in supporting forest planning;
- Set up community visits to successful forest management areas early in the planning process;
- Reduce the complexity of the final plan
- Encourage the FS to take a leadership role in developing forest management plans which are now carried out totally by projects.

For forests not targeted by the project these same procedures could be used. The forest service would need to contract out some of these steps, especially the inventory and socio-economic survey, and would need to have increased levels of funding to enable them to fund the costs of community meetings/consultations and travel to the communities and forests.

Local Conventions: The Wula Nafaa guide lays out a twelve-step process that includes a great deal of community participation in developing LCs and their appropriation of ownership. Local Conventions have required approximately twelve months until their approval by the Rural Council and *Sous-Prefet*. When a population is largely literate and the rural council has received some training, such as in Sakar, the convention was completed in only six months. In villages where most community members are illiterate, there is little likelihood that the pace of developing local conventions can be accelerated or that the populace could assimilate its content if the process were accelerated.

### **Conclusions:**

- Development of forest management plans can be speeded up to perhaps 8 months under certain circumstances (literacy) and using improved tools.
- Non-project plans can be accelerated if BICs can increase their involvement in the planning process, the Forest Service has adequate funding, exchanges take place between villages working on forest management plans and those already having them in place, and where techniques already employed successfully by Wula Nafaa are utilized. .
- Local conventions can be prepared in as little as six months if the community is literate, benefits from good leadership, and enjoys internal cohesion.

### **P5: To what extent is local government revenue being increased through local conventions and forest management plans and how can Wula Nafaa assist local governments in the management of these funds?**

Under decentralization, the GOS has devolved nine competencies to local government. Environment is one of these competencies but is somewhat unique. Unlike other sectors such as education and health, which require financial resources to meet community needs but do not generate them, the environment itself can generate significant revenues which can be used for encouraging good management and conservation of the natural resources at the local level. At present these revenues are captured largely by the central

Government and a significant part of the potential revenues are lost to Government through significant fraud by government staff acting for their personal gain. The environmental sector is heavily taxed and is generating significant financial resources for the Government of Senegal (GOS); high tax rates encourage evasion and 40% is believed to be lost to fraud.

The Wula Nafaa project is changing this situation and making more resources available to local government for use in better managing the natural resource based from which revenues both for the local populace and for local Government is derived. The project has anticipated that the costs of carrying out local conventions and forest management plans would be significantly, if not fully, funded from revenues generated from: a) exploitation and sale of charcoal, b) exploitation permit fees for other forest products, and c) fines. A portion of the costs of these fees, fines and permits would be returned to VDCs, IVDCs, Surveillance Committees and to the Rural Council.

In drafting the local conventions, Wula Nafaa encouraged the rural councils to develop product collection fees, local taxes and fines for violations to be paid to the CR directly and to serve as the main source of funding for the VDC and IVDC. Present statutory authority only provides for the restitution to the Rural Council of a certain percentage of fines for forest code violations occurring within its area<sup>35</sup>.

In practice, the statutory authority to levy these fees, taxes and fines was found to be lacking by higher government authorities (*sousprefet* and Forest Service) and the local conventions were not approved until well-intentioned mistakes could be corrected. The resubmission of draft conventions caused delays in their entry into effect. These missteps which caused the process to take somewhat longer than might otherwise be needed have now been corrected and the process of establishing revised Local Conventions has been expedited.

Except for the Koulor Forest Management Plan, the evaluation team found no estimates of how much funding would be needed for Local Convention and Forest Management Plan institutions to carry out their responsibilities. Also there were no estimates of how much revenue was likely to be generated for these purposes by the implementation of the plans. When asked how much money would be needed for VDCs, IVDCs and Surveillance Committees to function, Wula Nafaa staff responses were always “we don’t know”, implying that they would find out when the local conventions began to function.<sup>36</sup>

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<sup>35</sup> Legislation also provides for 20% of the national Forestry Fund to be provided to the local communities and the remainder to be retained by the Forest Service. However as in most African countries, this fund is managed by the Minister of Environment and the Director of the Forest Service and has traditionally been used to fund headquarters expenses, the running costs (electricity, phone, gasoline) of the forest service offices, and “special projects”.

<sup>36</sup> Information was, and is, available. The Wula Nafaa project area is not the only region of Senegal where Local Conventions have been put into operation. An IRG team that visited Senegal prior to preparing their RFP bid looked carefully at donor projects where LCs were already operating, especially a GTZ-funded forest management project. Current donor projects (PGIES, PROGEDE) also have helped communities prepare LCs which are now being implemented.

Very little revenue has been generated to date from local conventions since even approved conventions are at the initial stages of “mis en oeuvre” or execution. Some Rural Council presidents and community leaders anticipate that the revenue would be minimal (especially, they said, if villagers and their neighbors obeyed the LC rules as expected and no fines needed to be assessed). If funds are generated, the allocations of those revenues vary somewhat by LC, but in the example of Sakar are: Rural Council 25%; VDC/IVDC members and operations 40%, Village Chief 10% and contribution to village development 25%.

The major source of revenue is likely to come in community managed forests from fees and permits associated with exploitation of community-managed natural resources. For these forests charcoal is anticipated to be the major source of revenue. Wula Nafaa staff repeatedly cites the example of Missirah where illegal charcoal was confiscated and sold by the Forestry Department which then placed the \$44,000 in proceeds in the account of the Rural Council. Furthermore, the Missirah council has now negotiated a fee, or informal tax, with outside charcoal producers based on a payment of US\$0.40 per 50 kg sack of charcoal (farmgate price Missirah = US\$1.85), equal to US\$121 for each truck (300 sacks each) leaving the CR. These taxes are in addition to Forest Service taxes. These funds will nourish the bank accounts of the Rural Council (10%), paying Eco-Guards (10%), and the VDC and IVDC (approximately 20%) with most of the revenue allocated to the Forest Management Fund (60%). WN is pushing for an elimination of these informal taxes and that 80% of cutting permits and others taxes currently collected by Forest Service be returned to the Local Community. Under either circumstance, it is clear that charcoal exploitation is likely to be the main source of revenue for local organizations participating in forest management plans.

How can Wula Nafaa help improve the management of these revenues? This will differ by local institution. For community level institutions executing local conventions, the project should be able to provide support via:

- Ensuring that bank accounts and a basic form of financial record keeping (debits and credits) are in place with at least one trained village treasurer;
- Ensuring that the receipt and use of funds is transparent (including multiple signatures), with periodic reports to the community;
- Ensure that periodic external audits are conducted;
- Helping VDCs, IVDCs and Surveillance Committees determine their operational costs;
- Helping these organizations determine their “investment budget” needs and methods to request funding for these needs from the Rural Council or other entities.

For Rural Councils: As part of its work with the three “pilot” rural councils, Wula Nafaa can:

- Design a system for improving the financial management of environmental revenues/expenses flowing into and out of these Rural Councils;

- Ensure that financial management is transparent, with periodic reports available to the full council, to the *sous-prefet* and to environmental committee members.

#### Revenue Generation:

- Work with the Forest Service and the local Treasurer to ensure that revenues generated from the villages are returned to the villages (as appropriate under LCs) in a timely fashion;
- Work with the Agency for Rural Development (ARD) and other organizations associated with the RC annual planning process to determine how best to help RC staff or members prepare realistic plans and budgets with input from sectoral committees and community leaders.

**Conclusions:** Revenues from local fees and levies on forest products are beginning to generate some revenue and can be expected to generate substantially more revenues in the future for local government, especially from forest management plans. As more and more such agreements are negotiated with outside producers or with community-based producer groups and more funds are derived from local fees and taxes on forest products, RCs will have at their disposition substantial resources. If well managed, such resources can provide funds on a continuous basis for sustainable use and conservation of forest resources in the future.

There is little analysis of how much revenue is likely to be generated: possibly a great deal from FMPs especially from charcoal sales but probably very little revenue generated from LCs. Surprisingly there are also no clear estimates of how much money is needed for VDCs, IVDCs and Surveillance Committees to function effectively. WN can help with basic planning of needs and likely availability of revenues for each institution and encourage transparency in the receipt and use of funds. The optimum ways to assist RCs in funds management and budgeting should be learned from Year 5 work with the 5 pilot Rural Councils.

The basic issues for the future are:

- a) to provide local government with the tax, fee-setting, permit issuing and regulatory authorities commensurate with the responsibilities it has been assigned by decentralization; and
- b) To establish systems for controlling the collection and use of these resource at the local government level and to assure transparent accounting which can satisfy the community that revenues from forest resources are being used wisely and fairly.

### ***Programmatic Questions***

#### **Does the Nature, Wealth and Power approach work in Senegal? If so, why?**

Yes, the N-W-P approach embraced by Wula Nafaa is “working in Senegal” in the sense that there is good progress towards achieving the project objectives in all three “sectors” Wula Nafaa is viewed as a successful project by Senegalese elected officials and by much of the Forest Service. Some of these now claim that they were among the ‘fathers’ of the

project. The project is also seen as a success at the community level and villages neighboring Wula Nafaa target areas are asking to be included in the project.

The driving impulse behind the project's success thus far has been the rapid expansion of markets for natural resource-based and non-traditional agricultural products. Sales and profits from the initial ten products chosen by Wula Nafaa have increased exponentially, in many cases providing villages with more revenue than they had ever received including the days when the peanut and cotton markets were strong.

Communities have quickly realized the importance of the wealth-nature nexus and have instituted measures to protect the natural resource base for their products – thus far mostly via local conventions and rules regarding harvesting established by the economic groups. The first conservation measures taken have consistently been rules to avoid bush fires and rules for when and how to gather forest products or grow non-traditional products. Villagers say that both measures have yielded quick and positive improvements in the quantity and quality of their products.

The need for rules and regulations to protect the natural resource base has readily been translated into the development of 24 local conventions – a process that has required literacy, improved knowledge of the Forestry and Decentralization Laws, and often has required lengthy and detailed discussions among community-level interest groups and between neighboring villages as well as transhumant herdsman. This process has also required the participation of the village chief, the community's elected representative to the Rural Council, usually the substantive involvement of the President of the Rural Council and, finally, the approval of the sous-prefet. The local convention model typically involves the creation of 2-3 local committees to manage the convention, with villagers volunteering to participate on these committees. A similar, but more detailed, process is required for the elaboration of forest management plans, but to date only one plan has been completed.

Thus, the Power aspect of the paradigm has made significant progress, at what we call the small “g” or community level. At this stage, Wula Nafaa has had much less impact on the larger “G” institution, the Rural Council.

Finally, Wula Nafaa, through studies and feedback from project sites, has identified a large number of policy reforms that are needed to ensure: a) fuller and more permanent economic benefits to local producers; and b) more efficient community management of their forests and other natural resources.

In sum, the NWP approach is clearly working thus far. Two major obstacles that must be overcome before the approach can be sustained and expanded are: a) successful enactment of most of the proposed policy reforms; and b) true decentralization of financial resources to enable the Rural (and Regional) Councils and the local offices of the Forest Service to carry out their new responsibilities.

Why has the NWP paradigm worked thus far in Senegal? Several contributing factors are:

- There is strong market demand for products chosen by the project;
- A strong entrepreneurial spirit is alive and well, even in the most remote villages of rural Senegal and villagers are responding to the market demands;
- The Decentralization law exists even though the GOS seems hesitant about how fast it should be put into effect;
- After a shaky start, the Forest Service has provided recent strong support for the project;
- Wula Nafaa has done an excellent job of including local elected leaders and senior FS officers in the design and implementation of the project.

### **Are all three necessary for economic growth in the Senegal context?**

At this stage, clearly all three components are needed to ensure long-term economic growth in the Senegal context. As noted above, increased economic revenues (W) has been the driving force behind project success, with substantial improvement in community-level natural resource management (N) recognized as a needed second step to ensure long-term income.

Is the Power component really needed? As noted above, most work thus far has been at the “g” level, where tools for community governance of local resources (local conventions and forest management plans) have been put in place after lengthy periods of analysis and negotiation. If these natural resources were privately owned, rather than common community property, local conventions might not have been needed. Land owners theoretically could manage and protect their own forest, land and water resource, calling in the Gendarme or Village Chief to resolve problems of trespassing or stealing. But, where “the commons” are concerned, as in rural Senegal, the “g” component of WNP has been essential.

The issue presently confronting Wula Nafaa is how necessary is it for the project to work more extensively with the “G” institutions, the Rural Councils, to ensure project sustainability? The Rural Councils have legal responsibility for decentralized NRM management, for preparing local development plans, and for making decisions related to agriculture and livestock that will affect communal lands. But, must the project take on wholesale institutional strengthening of the Rural Council (including its nine competencies – that include education, health, youth, etc, as well as environment) in order to promote improvements in planning, budgeting, financial management and transparency that would be useful to forward Wula Nafaa’s environment agenda? Should it strive to complete the work of the DGL Felo, the prior USAID democracy/governance project that terminated in 2004 and has not been replaced by USAID/Senegal ? The evaluation team hopes that WN’s work in three pilot Rural Councils during Year 5 will suggest specific interventions with Rural Councils that clearly support environment program objectives and are cost- and time-efficient.



## How can the Nature, Wealth and Power approach be sustained in the long term?

This is a critical question for any development project, but especially for a project that is testing a new development paradigm, such as Nature-Wealth-Power. Sustainability is not a feature added to development projects as part of a final year close-down or exit strategy. Rather sustainability has to be built into the project approach and implemented as part of overall project strategy from day one. A first step at addressing the question will be to outline the functions/activities that need to be in place for the objectives of Wula Nafaa to be achieved. The Wula Nafaa team has identified one overarching indicator per sector<sup>37</sup> (identified below with an asterix \*). The evaluation team has added other more detailed indicators. The status of the project in achieving these indicators is then discussed.

### A. Indicators of sustainability:

#### Wealth:

- \*Strengthened networks of organized producers who can function autonomously as they work to increase their revenues, and whose activities respect the rules and principles established by the community to rationally manage the resources they harvest;
- Producer and processing organizations and producer networks have the capacity to manage their businesses with gradual reduction of WN involvement;
- Credit is Available: Producers & Processors Linked with Banks and Microfinance Institutions;
- Producer organizations and networks have the ability to respond to market changes and new opportunities;
- The membership of producer and processing organizations and networks understands & supervises management;
- Good governance & transparency are assured as part of producer organization and network management;
- Producer organization managers and staff are held responsible for results;
- New leaders are periodically elected & trained to replace old ones;
- Federations (tertiary level institutions) are not needed for most products, but, if needed, would be fostered by SAGIC.

#### Nature

- \*Natural resource tools such a local conventions and management plans drafted, implemented and managed collectively and correctly;
- Proper application of key elements in the present Forestry Code; approval and application of Forestry Code reforms;
- Forest Service activities focus more on support for community management of natural resources working closely with Rural Councils (and less on policing product sales);
- At least one functioning community forest management plan and one classified forest co-management plan in place and being implemented;

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<sup>37</sup> These indicators are identified in the 2005-2006 Annual Report as part of a discussion of “Exit Strategy”.

- Forest management plans and local conventions are serving as models for other plans and conventions developed without Wula Nafaa support;
- The Forest Service has the technical capacity and financial resources to develop new forest management plans in timely fashion;
- Rural Councils are organized to: a) resolve NRM problems in timely fashion; b) plan and finance investments to support community NRM efforts; c) manage resources effectively;
- Communities are aware of their rights and responsibilities under decentralization and see the link between economic benefits and NRM.

#### Power:

- \*Rural Councils and their sub organizations that are aware of their powers in the natural resource management domain, skilled in the use of those powers, and responsible in the sense that they respect democratic rules and govern well;
- Local Conventions are being implemented (and modified as appropriate) in a transparent fashion;
- Village Committees and Rural Councils can function without facilitators (or consultants);
- Adequate financial resources are available for the functioning of village and Rural Council environmental institutions, with increasing local revenues generated in part from Local Conventions and Forest Management Plans;
- Constituency groups (CBOs, Rural Councils, and Economic Networks) are continuing advocates for policy reforms that support the N-W-P approach.

#### B. Project status:

##### 1. Economic Benefits

- Strengthened networks of organized producers who can function autonomously as they work to increase their revenues, and whose activities respect the rules and principles established by the community to rationally manage the resources they harvest.

The approach described in section V involves heavy initial involvement of on-the-ground facilitators and other project staff. The interventions by Wula Nafaa staff in day-to-day marketing and production operations of producer groups gradually decline over time. Staff shifts its attention to providing business development services to help producer organizations to consolidate their operations and to run them in an efficient, open and transparent way. Staff efforts are designed to leave behind functional organizations able to continue marketing member production successfully, to maintain forest resources on which their increased revenue is dependent, and to provide on-going support for local government management of resource access. It trains producers to understand the need for controlling access to and use of resources and for local governments to levy reasonable charges to finance the costs of surveillance and natural resource management.

Wula Nafaa is attempting to help organizations develop the financial base of support which they will need to maintain their services by encouraging the adoption of charges levied on the volume of product members market through their organizations. For the

most part, these levies are under discussion but have not yet been put into effect; Wula Nafaa needs to work intensively with organizations in this issue during its final year of operation.

- Producer and processing organizations and producer networks have the capacity to manage their businesses with gradual reduction of WN involvement

The Wula Nafaa approach has succeeded in establishing village-level producer groups and *réseaux* (“networks” or second-level cooperatives). These groups are able to assemble quantities of product of a sufficient volume and agreed upon quality to meet buyer specifications. They recognize the need for group solidarity and for consolidating sales to a single buyer to maintain price and other concessions negotiated earlier. Involvement of Wula Nafaa facilitators and staff in these customary day-to-day sales operations becomes less necessary as time goes on, and staff time and energy is then freed up to concentrate on developing the business acumen of the producer organization and of its leaders and any hired staff. Organizations quickly learn how to manage repeat marketing operations on their own and, with project help, to take advantage of favorable opportunities to modify their sales strategy and to analyzing new marketing opportunities as they emerge. Their increasing competency bodes well for the sustainability of their operations in the future. At the same time it allows project staff to concentrate on higher level organizational needs and on providing services to other communities demanding support in order to get in on the benefits offered by the economic model supported by Wula Nafaa.

- Credit is Available: Producers & Processors Linked with Banks and Microfinance Institutions

The Wula Nafaa project is also endeavoring to facilitate the connection of producer organizations, businesses and processors to financial institutions capable of financing their marketing operations and perhaps of also providing longer-term loans for the capital investments some of these organizations will need in the future. This connection will have to be carried out at two levels: 1) producer and small processing organizations with microfinance institutions and 2) larger buyers, major processors and exporters with commercial banks. Because of the relative newness of most organizations and businesses assisted by the project and their lack of collateral, outside guarantee funds will have to be put in place as a necessary step toward the eventual financial independence of targeted businesses and other organizations. These credit linkages had, for the most part, not yet been implemented at the time of fieldwork for the evaluation mission. Unless financial backing from formal credit institutions is assured, most organizations and other businesses will find it hard to keep member loyalty for group sales and to acquire additional product volumes needed to expand their operations; expansion is something which they must do now and must continue to do after support from the project ends.

- Producer organizations and networks have the ability to respond to market changes and new opportunities

Producer groups and networks are already considering opportunities to diversify into new products and occasionally are forced to seek alternative marketing channels when preferred buyers fail to meet pick up or payment schedules. Most of these organizations have only been established or have only begun to operate on a commercial basis over the past three years, with the support of the Wula Nafaa project; some are even newer and just starting commercial operation now. Wula Nafaa has carried out the necessary market research both nationally and internationally for products selected for project support and for others which it decided not to support (at least not initially). It has helped organizations to develop marketing relationships with selected buyers and to consolidate partnerships with which both sides are generally satisfied.

The capacity of these organizations at present to respond to any rupture in established commercial relationships or to take advantage of new opportunities in their main product or for new products available in their locality, is limited. The additional time and hands-on experience that a second phase of the Wula Nafaa project would offer, would help to consolidate existing commercial relationships, increase organizational knowledge of main markets for currently marketed products, and help leaders to learn techniques for investigating new markets within Senegal. After a few years of additional support, most of these organizations and businesses will be able to continue long into the future in their current lines of business, and businesses will learn how to adapt to changing market situations. New producer organizations and other business are likely to develop even in unassisted communities or for products not supported by Wula Nafaa, and organizations, given sufficient time for the example of assisted organizations and businesses to be absorbed and then followed by others.

Outside support from other projects such as SAGIC will still be required to take advantage of international market opportunities afforded by new products or for substantially different ways of marketing existing products.

- The membership of producer and processing organizations and networks understands & supervises management

Organizations are formed voluntarily by individual producers coming together to obtain as a group financial rewards that they cannot attain by selling their products individually. The continued participation of existing members and the affiliation of new member will only happen if members fully understand what their organization is doing and how it is being run. Any hint of financial impropriety can doom an otherwise successful organization to failure and will cause members to abandon it in short order and *en masse*. Hence it is essential that members be fully informed about their organizations operations, how much more money they make by being organized as compared to dealing with the market individually, and how the organization's funds are used for their benefit. Accounts should be posted in easy-to-ready form on flip-chart sized paper at meeting locations.

Most of the producers are illiterate; this is particularly true in the case of members of women's groups. Literate members should help those who are not to understand what is

happening in the organization; those who want to, should be helped to attain literacy, not as a goal in itself, but as an essential part of making sure those organizations are run democratically.

Leaders should be held accountable for their actions and for the results that they obtain. Members should be actively involved through participation in open meetings of general members and being allowed to attend, if not necessarily to participate in, meetings of the organization's board. Elections should be frequent, terms should be kept short, and rotation in leadership frequent, including making provision for special meetings when major issues arise or when membership is dissatisfied with how the organization is being managed.

Representatives of producer groups attending meetings held outside of their villages with networks or attending training sessions should be required to report back to members on what issues have arisen and what decisions have been made which affect their organization. Issues of importance to the organization should be debated generally as they arise and all members should participate. Decisions should not simply be made by the board and then not reported on until much later when the next general meeting is held. Fieldwork indicated some degree of dissatisfaction on the part of the general membership with the reporting and debriefing by leaders and people trained by Wula Nafaa. Ordinary members feel left out when leaders or those invited to training session who fail to share what they have learned with their fellow members. Wula Nafaa managers and facilitators need be aware of this concern and to see that it is addressed as part of the development of strong, democratically governed organizations.

- Good governance & transparency are assured as part of producer organization and network management

A major issue for sustainability is good governance, transparent accounting and member confidence in the ability of their producer organizations to continue putting money in their pockets in the future. Leaders have to learn their roles and responsibilities, basic business management and simple accounting skills and the importance of presenting the results of each transaction in a clear and simple way understandable by all members. Members have to understand organization business and to learn that they have a right and responsibility to bring up their concerns if they do not understand what is going on or if they do understand it and are not satisfied with how the organization is being managed.

Good governance and financial transparency is also essential at local government level and also requires a high level of community involvement in government decisions.

- Producer organization managers and staff are held responsible for results

The books should always be open to all members. Annual accounts should be produced with the help of Wula Nafaa facilitators initially and results should be posted on the walls of organization offices or warehouses for all to see. As soon as their finances permit it, outside book keepers should be hired and assisted, at least initially, by facilitators. The

accounts they keep should be subject to review and audit by Wula Nafaa staff or outside accountants engaged specifically for this purpose. Some of the networks may become large enough and do a sufficient volume of business to justify the hiring of professional managers. Managers need to be supervised by organization leaders and to provide a clear accounting of all their operations and keep leadership informed concerning business transacted by the organization and on forth-coming issues needing leaders' attention.

- New leaders are periodically elected & trained to replace old ones

Provision has to be made for the rotation of leaders. Given the high level of illiteracy, particularly among women, some support for literacy training for potential replacement leaders is essential. Perpetuation of the same leaders in office for long periods of time does not lead to democratically run organizations. None of the organizations interviewed during fieldwork had changed leadership since the organization started although in some case three years had intervened since organizations were founded. The Wula Nafaa project needs to focus on making sure that current leadership is providing good management for their organizations and that a new generation of leaders is being trained and will be ready to take over when current leaders need to be replaced due to age, reduced level of interest, or their failure to produce desired results. More efforts in this area will be required in a second phase of the project.

- Federations are not needed for most products, but, if needed, would be fostered by SAGIC

Within a reasonable planning horizon for USAID (five years or so), support based on the nature-wealth-power model probably will not include the development of third-level producer organizations during the remainder of the Wula Nafaa project or in a second phase of the project (if USAID decides one is needed). Product marketing can continue to expand at a reasonable rate though probably slower than the phenomenal rates being achieved at present while it is being supported by the project. Continued use can be made of existing marketing channels. New channels can be opened by networks and producer organizations which organizations can find on their own or with the help of a second phase of the project. These channels will continue to provide producers with better prices for their products and marketing outlets able to handle the higher volume and improved quality which producer organizations are able to supply.

The joint Forest Service-Wula Nafaa task force is now analyzing many of the tax and regulatory issues which are hampering the development of the forest and NTA products which Wula Nafaa is supporting. A role for federations would be advocacy work to bring these same issues up for public consideration. However, if the political will is there, many of the tax and other issues which are inhibiting development of the marketing of the kinds of forest and NTA products can be resolved in the time remaining to Wula Nafaa or in a second phase of the project. The Wula Nafaa project has other goals than simply maximizing income from selected products. That being the case, the effort and expense that would be required to establish and develop federations with the goal of achieving modest additional economic benefits and promoting policy and regulatory

reform, would probably better be expended in other areas of concern to the project. Among these concerns are improvements in accountability and local governance which will be fundamental to achieving better long-term use, management and conservation of forest resources.

Some processor groups have already set up organizations which they call federations; these organizations are loosely organized and do not at present have major financial or marketing functions at this point in time. SAGIC may want to work with some of these organizations to consolidate them in roles which are appropriate to the products they are dealing with. Where producers groups could achieve significant additional economic gains either through marketing at a level higher than second-level networks permit or where advocacy for policy or regulatory reform is deemed crucial to the financial viability of their operations, SAGIC may want to provide support to development of such federations. It is too early in the development of most primary and secondary level producer organizations to believe that third-level organizations are a viable solution at this stage. Lower level organizations currently being developed with the support of Wula Nafaa are adequate for meeting the most immediate needs producers face in marketing their products.

## 2. Nature

**Rural Council and populations fulfill responsibilities:** The achievement of this goal will require those involved to have a better mastery of their role in the enforcement of the local conventions and in the exercise of transferred competencies in general. Skills improvement in terms of decision-making, planning, organization and implementation will help RCs to set up a productive dialogue with the forest administration, the VDCs and the private sector. As far as the financial means required to carry out these duties are concerned, the local elected representatives should be imaginative and creative enough to enlarge the endogenous resource generating opportunities and specially those created by WN in the framework of the forest resources upgrading.

**Close Collaboration between Forest Service and Rural Councils:** The collaboration set up in the development of local conventions and joint management and forest management plans could be nurtured and maintained with the material support of the Regional Council. That latter is the body entitled to develop a framework for concerted action in charge of the planning and harmonization of natural resources management policies within the limits of the regional perimeter.

**Operational and adopted community management models:** The ownership process of the current local conventions at the actors' level (RCs and VDC) could be strengthened through a strategy including : regular animation of the structures responsible for the implementation of local conventions and forest working plans (holding self-appraisal monthly meetings on a regular basis); the regular control and monitoring of the committees' activities by the state partners; the synergy of efforts among FS, WN, PROGEDE, PAEFK, and the NGOs.

**Approval and implementation of the draft legal material on the forest code and forest taxation:** Clearing some imprecision in the forest code and in the forest taxation would contribute into giving more responsibilities to the actors (RC and VDC) whose mission requires not only financial means, but decision making powers as well, at both the legal and political levels. Moreover, the enforcement of these provisions would bring to affect the political will to decentralize the responsibilities in natural resources management.

**Further means to enhance the operations of FS and local institutions:** Enhancing the forest services' material and technical intervention capacities, would help them ensure an advisory support and monitoring to the rural councils and surveillance committees. In that respect WN's support in terms of equipment and capacity building for the Regional Water and Forestry Inspection services should be strengthened and decentralized to the forest sector and local forest ranger units. These latter should be equipped with laptop computers and GPS equipment that would help them to collect data related to exploited and circulated forest productions, reforestation and forest fire fighting activities.

#### C. Steps to sustainability:

- Proper application and reform of the Forestry Code
- Reduction of fraud and disincentives to the production and sale of forest and non-traditional products
- The Forest Service accepts its new role and responsibilities within the context of decentralization.
- Adequate funds available (from the *Fonds Forestière*, perhaps) to finance aggressive Forest Service field activities such as forest management planning;
- Transfer of sufficient revenues to community-level natural resource management institutions (VDCs, etc) and Rural Councils to enable them to carry out their new responsibilities or give them the authority to generate these funds through charges, fees and local taxes on forest products.

### **How can the Ministry of Environment achieve the shared results on a wider scale?**

Sharing the results of Wula Nafaa's NWP approach may be more complicated than moving to scale with more traditional projects. Several approaches are discussed below.

a. Ministry of Environment: The NWP approach is much more expansive than the traditional responsibilities of the Ministry of Environment. While MEPN and its Forest Service field agents could and should be very helpful in expanding the use of local conventions and forest management plans, the Ministry has no real capacity to help form producer groups, processing groups and producer networks. It is therefore unlikely that the ministry can help scale up NWP without partnering with another government institution or another donor. One possible partner is ANCAR which has reportedly helped form and support agricultural producer groups, but using a more traditional cooperative approach. In any case, under a World Bank recommended re-alignment of rural



development institutions, ANCAR will soon be absorbed into a much larger organization, the National Program for Local Development (PNDL).

The Ministry could also endeavor to scale up the model by encouraging other donor-funded projects to use it in other regions of Senegal. One current project, the PGIES, supports integrated development activities in the villages bordering national parks and other protected areas. However, the PGIES does not encourage exploitation of forest resources, at least at present, but rather encourages communities to develop alternative livelihoods such as poultry raising, beekeeping and eco-tourism. This very traditional Integrated Conservation and Development Project (ICDP) approach seems shortsighted. Perhaps the MEPN could encourage PGIES to test the Wula Nafaa approach in some project sites, especially in the buffer zone around Niakolo National Park, itself adjacent to an area where Wula Nafaa already has project activities.

b. Community-level expansion: On a different scale, expanded use of the model could also be fostered by local communities. Rural Council Presidents from Sakar and other successful project areas, could be encouraged to present the model at meetings of the Association of Rural Council Presidents. Visits to successful project sites by RC presidents and other community members could be funded by Wula Nafaa. Hypothetically, neighboring villages could copy/adapt the Wula Nafaa process (11 steps) for developing a local convention. Similarly producer groups could form based on the experience of neighboring villages and could link to producer networks. In practice, this informal and unfunded replication process in neighboring communities assumes a combination of technical skill, leadership, literacy and entrepreneurship that may not be often found.

c. Possible limits to expansion: The opportunities to eventually scale up Wula Nafaa may be limited by another important factor: the breadth of demand for forest and non-traditional agricultural products. Wula Nafaa chose to work where there economic opportunities had been identified (and, consequently, where those areas coincided with forests and other natural resources that needed protection). The project chose NOT to work in areas where natural resources were degraded, but there were no economic opportunities.

The domestic and international demand for products such as fonio, baobab fruit, etc is presently limited (e.g. Wula Nafaa has already decided not to foster, at least temporarily, additional producer groups making baobab powder). . Therefore, Wula Nafaa needs to continue to search for new markets for existing products (including charcoal) and to help producers move into new products (such as wood products) in order to take full advantage of the success of the NWP approach and to scale up and expand its coverage to adjacent and other regions. WN's economics section needs to research national and international markets more thoroughly, perhaps using consultants, perhaps also in concert with SAGIC whose mandate includes some of the same products

## **Recommendations**

### **Suggestions for 5<sup>th</sup> Year Activities**

The Terms of Reference for this evaluation has focused on learning how well Wula Nafaa and the N-W-P paradigm have functioned in Senegal. Since the Wula Nafaa project terminates in December, 2007 the TOR did not ask the evaluation team to provide recommendations or suggestions for changes during the final year of the present contract.

The Wula Nafaa team has already prepared (and has had approved) a detailed work plan for 2006-2007. Nevertheless, the evaluation team would like to make a few suggestions for year 5 priorities and activities that are not in the work plan:

- Carefully design work with the three pilot Rural Councils to ensure that WN can determine the most cost-effective way of achieving NRM goals. Thus far, the IRG team has not been clear exactly what is to be learned from these “pilots” and what various approaches will be tested in the pilots. A careful approach to working with these pilot RCs would ideally involve designing and testing several different approaches or sets of interventions, establishing indicators of improvement in Council performance and capacity, and then measuring positive change by the end of the project.
- Place strong focus on the Policy component of the project in order to achieve tangible movement towards reform in Year 5. WN has produced excellent technical analyses of weaknesses in the forestry code, application of the present forestry code and fraud associated with application of the code. A document that details desired changes has been drafted and will be reviewed and hopefully approved by an inter-ministerial working group in early 2007. At this point, the reform process moves into the Senegalese political arena where a different set of skills is needed to ensure progress towards formal legislative changes. This support ideally should come from Senegalese ‘champions’ of the NWP approach and of effective decentralization, both within and outside of government. To garner this support, Wula Nafaa should place more attention on communicating the NWP approach and the results of the project to a variety of carefully targeted audiences within Senegal. The Wula Nafaa project may also need to draw on consultants who are experienced in this stage of the policy reform process. Sufficient progress should be achieved to convince USAID/Senegal that the reforms have enough political and institutional support that a 2<sup>nd</sup> phase project might be considered<sup>38</sup>.

### **Recommendations for future USAID programming**

Wula Nafaa has introduced a series of new economic, political and conservation initiatives: producer groups and producer networks, and village development and inter-village development committees that are beginning to implement the regulations established by local conventions and forest management plans. A number of policy reforms have been identified that are crucial for long-term program success, but these

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<sup>38</sup> Progress on implementing certain articles in existing Forest Code legislation is also an important indicator of GOS willingness to effectively decentralize NRM management responsibilities.

reforms are not yet enacted. Despite the good progress made thus far by Wula Nafaa, project gains risk being lost without continued outside (USAID) support. The evaluation team focused its attention on assessing the impacts of the Wula Nafaa and did not have time to carry out additional analyses and interviews that would be appropriate for future project design. However, based on the evaluation conclusions, the following recommendations are provided for USAID and GOS consideration and further study.

I. Preferred Option: A 2<sup>nd</sup> Phase project: The evaluation team unanimously believes that another five years of support will be necessary to bring the new institutions and initiatives to a point that they can then be continued without outside donor support. Development specialists estimate that a total of 7-8 years will be needed before facilitators will no longer be needed in project villages to support economic groups and the implementation of local conventions and forest management plans (e.g. an additional 3 years for the oldest Wula Nafaa region- Tambacoumba and 5 years for the youngest region- Ziguinchor).

Project area: Phase II would continue to work in all existing project areas, but should consider adding Rural Councils adjacent to a major resource (community forests) or perhaps all of the RCs in a particular arrondissement. The project should consider expansion to the forest zones between Kaolack and Tambacoumba and/or perhaps in Fatik.

Other elements and ideas suggested for Phase II:

- Consider expansion into the mangrove forests in Ziguinchor region, where it is likely that the W.N approach can be successful working with a fishermen and coastal zone economic products such as shellfish and mangrove products. If population pressure is a major “threat” to conserving mangrove and coastal resources, adding a family planning component to this project component might be considered<sup>39</sup>;
- Consider adding new products such as wood for construction and furniture making (bois d’oeuvres);
- The credit component will need to receive priority to support producer groups, processors and exporters;
- Find ways to ensure greater GOS financing for project activities, especially for Forest Service field offices (i.e. debt forgiveness monies Forestry Fund resources);
- Encourage closer, practical linkages between SAGIC and the Phase II project, perhaps a new task order to support Wula Nafaa products at the federation/societe (phase 3) level and for export;

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<sup>39</sup> A recent evaluation of USAID and Packard Foundation Population-Environment projects worldwide indicates where and how these projects have often been successful. SEE “Lessons From the First Generation of Integrated Population, Health, and Environment Projects”, John Pielemeier, 2006, Population Reference Bureau.

- Test the Forest Service's capacity to take the lead in preparing and executing at least one community and one classified forest management plan. This should give them the model and confidence that will encourage other planning efforts;
- Encourage dissemination of project models (e.g. economic groups) for adoption by other donor projects in Senegal; and
- If DG funds are available, consider a concentrated effort to broadly support Rural Councils in selected project regions.
- Consider including new aspects of eco-governance to discourage the misuse of the newly decentralized authority (capture by elites, nepotism, receipt of "rents" for non-enforcement) that have occurred in some other decentralized NRM programs throughout the world. These might include structures of accountability (upward and downward), transparency that is required in the use of funds generated by local conventions and forest plans, as well as encouraging an active media, an engaged civil society and an effective judiciary.

Roads not suggested: Although the evaluation team did not have the time or resources to thoroughly explore other design options, at this point we do not recommend two options:

3. Work in Hunting Zones: New hunting concessions are about to be licensed for 5-10 years. There has been little/no reform in the hunting concession process despite strong recommendations for change. Once the new concessions are in place, there will be even less opportunity for Wula Nafaa to play a catalytic role in these zones;
4. Work in National Parks and Protected Areas (PAs): It appears that the PGIES project, which is extremely well funded, is already present and working in the communities within a 5-10 kilometer radius of most national parks and protected areas. They certainly have a strong presence around the Niokolo National Park. PGIES, at present, does not encourage the exploitation of forest resources, but instead encourages alternative income generating activities (poultry, bee-keeping). The role of Wula Nafaa II in these zones might be to work with PGIES, on a pilot basis to test whether forest products can be successfully exploited in zones near PAs without leading to similar exploitation within the PAs themselves.

#### Possible Phase II Objectives:

Objectives to be considered for Phase II might include the following:

#### Wealth:

- \*Strengthened networks of organized producers who can function autonomously as they work to increase their revenues, business acumen and come to respect the rules and principles established by the community for rationally manage the resources they depend on;
- Producer and processing organizations and producer networks have the capacity to manage their businesses with gradual reduction of Wula Nafaa involvement
- Credit is Available: Producers & Processors Linked with Banks and Microfinance Institutions and have access to working capital and medium-term loans;

- Producer organizations and networks have the ability to respond to market changes and new opportunities as they arise;
- Good governance, financial accountability and transparency are practiced as part of producer organization and network management;
- Producer organization leaders and managers are held responsible for results obtained;
- New leaders are periodically elected & trained to replace old ones;
- Federations of producer organizations are not needed for most products, but, if needed for some processors, would be fostered by SAGIC.

#### Nature

- \*Natural resource tools such as local conventions and management plans drafted, implemented and managed collectively and correctly;
- Proper application of key elements in the present Forestry Code; approval and implementation of key Forestry Code reforms;
- Forest Service activities focus more on support for community management of natural resources working closely with Rural Councils (and less on policing the collection of forest product taxes);
- Several community forest management plans and classified forest co-management plans in place and being implemented;
- Forest management plans and local conventions are serving as models for other plans and conventions developed without Wula Nafaa support;
- The Forest Service has the technical capacity, the logistical and the financial resources to develop new forest management plans in a timely fashion;
- Rural Councils are organized to: a) resolve NRM problems in a timely fashion; b) plan and finance investments to support community NRM efforts; and c) manage resources effectively; and
- Communities are aware of their rights and responsibilities under decentralization and see the link between economic benefits and NRM.

#### Power:

- \*Rural Councils and their sub organizations (committees) are aware of their powers in the natural resource management domain, skilled in the use of those powers, and responsible in the sense that they respect democratic rules and are well governed;
- Local Conventions are being implemented (and modified as appropriate) in a transparent fashion;
- Village Committees and Rural Councils can function without facilitators (or consultants);
- Adequate financial resources are available for the functioning of village and Rural Council environmental institutions, with increasing local revenues generated in part from Local Conventions and Forest Management Plans;
- Accounts are open to all and audited annually;
- Constituency groups (CBOs, Rural Councils, and Producer Organizations and Networks) continue advocating for policy reforms that support the N-W-P approach.

II. Other Options: USAID might have to consider less promising options under the following circumstances:

- If less funding or fewer years were available for Phase II; and/or
- If less USAID Global Climate Change/Biodiversity funding is available.

In either of these circumstances, USAID/S should consider partnering with another donor to share the costs of project continuation and expansion.