

Evaluation of Building biocarbon and rural development in West Africa (BIODEV)

EVALUATION REPORT

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Abbreviations

AB – Advisory Board
AGIR - Global Alliance for Resilience
AGRHYMET - *Centre Regional de Formation et d'Application en Agrométéorologie et Hydrologie Opérationnelle*
APU - Agricultural Policy of the UMEOA
AU – African Union
BF – Burkina Faso
BIODEV - Building biocarbon and rural development in West Africa
CAADP – Comprehensive African Agriculture Development Programme
CAF - *Chantier d'Aménagement Forestier* (Burkina Faso)
CC – Consortium Council
CCAFS – Climate Change, Agriculture, and Food Security (CGIAR programme)
CCO – Cross-cutting objective
CERE - *Centre d'Etude et de Recherche en Environnement* (Guinea)
CGIAR - Consultative Group on International Agricultural Research
CDM - Clean Development Mechanism
CIAT - International Center for Tropical Agriculture
CIFOR – Center for International Forestry Research
CILSS – Permanent Interstates Committee to Combat Drought in the Sahel
CONEDD - *Conseil National pour l'Environnement et le Développement Durable* (Burkina Faso)
COP – Conference of Parties
CORAF - *Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles*
CPIE - Common Policy for the Improvement of the Environment
CRP - CGIAR Research Programme
CSA - Climate Smart Agriculture
CSSL – Conservation Society of Sierra Leone
DNEF - *Direction Nationale des Eaux et Forêts* (Burkina Faso and Mali)
DNFF - *Direction Nationale des Forêts et Faunes* (Guinea)
DPERH – *Direction Provinciale de l'Environnement et des Ressources Halieutiques* (Burkina Faso)
DPF – *Département de Productions Forestières de l'INERA* (Burkina Faso)
ECOWAS – Economic Community for West African States
EVD – Ebola Virus Disease
FAO – Food and Agriculture Organization of the United Nations
FCPF - Forest Carbon Partnership Facility
FAO – Food and Agriculture Organisation of the United Nations
FIP - Forest Investment Programme
GCCA+ - West Africa Component of the Global Climate Change Alliance
GCF - Green Climate Fund
GEF – Global Environmental Facility
GGF - *Groupement de Gestion des Ressources Forestières* (Burkina Faso)
GoF – Government of Finland

HQ - Headquarters
HR – Human resources
HRBA - Human-rights based approach
HVB – High value biocarbon
ICI - International Climate Initiative of Germany
ICRAF – World Agroforestry Centre
IER – *Institut d’Economie Rurale* (Mali)
INDC - Intended Nationally Determined Contributions
INSAH – *Institut du Sahel*
IPCC - Intergovernmental Panel of Experts on Climate Change
IRAG - *Institut de Recherche Agronomique de Guinée* (Guinea)
LDC – Least Developed Countries
LDSF - Land Degradation Surveillance Framework
MAFFS - Ministry of Agriculture Forestry and Food Security (Sierra Leone)
M&E – Monitoring and Evaluation
MFA – Ministry of Foreign Affairs (Finland)
MICCA – Mitigation of Climate Change in Agriculture (Finland supported programme at FAO)
MRV - Monitoring, Reporting and Verification
NAMA – Nationally Appropriate Mitigation Actions
NAPA – National Adaptation Programmes of Action
NCCC - National Climate Change Committee (Burkina Faso)
NEPAD – New Partnership for Africa’s Development
NGO – Non-Governmental Organization
NRM – Natural Resource Management
ODA – Official Development Assistance
OKNP - Otamba Kilimi National Park (Sierra Leone)
PAT – Project Administration Team
PC – Programme Coordinator
PDDAA - *Programme Détaillé de Développement de l’Agriculture en Afrique* (CAADP)
PIN - Project Idea Note
PM – Programme Manager
PRAPS - Regional Sahel Pastoralism Support Project
REDD – Reduced Emissions from Deforestation and Forest Degradation in Developing Countries
REDD+ - REDD plus forest restoration and rehabilitation
SG – Steering Group
SIIP - Sahel Irrigation Initiative Programme
SL – Sierra Leone
SLARI – Sierra Leone Agricultural Research Institute
SO – Sub-objective
SP-CONEDD – *Secrétariat Permanent du Conseil National pour l’Environnement et le Développement Durable* (Burkina Faso)
ToR – Terms of Reference
UAF - *Unités d’Aménagement Forestier* (Burkina Faso)
UEF – University of Eastern Finland
UEMOA - West African Monetary and Economic Union

UGGF – *Union des Groupements de Gestion des Ressources Forestières* (Burkina Faso)

UH – University of Helsinki (Finland)

UN – United Nations

UNCCD - UN Convention to Combat Desertification

UNFCCC – United Nations Framework Convention on Climate Change

VCA – Value chain analysis

VITRI – Viikki Tropical Resources Institute of the University of Helsinki

WCA – West and Central Africa

WP – Work Package

Executive summary

Government of Finland has supported Building biocarbon and rural development in West Africa (BIODEV) project since 2012. Its focus is in high value biocarbon approaches, through which the Project intends to produce long term livelihood and environmental benefits to rural populations and global community.

The effects of global climate change are particularly felt in West Africa. According to Intergovernmental Panel of Experts on Climate Change (IPCC), the sub-region will experience impacts such as increased intensity of extreme weather events, droughts and water stress, warming of water and decreasing fish production, land degradation, and changes in the distribution of animal and human vector-borne diseases. Fluctuations in weather patterns are becoming more common. Crops in West Africa are already affected by drought and depletion of water resources. Pests and diseases are common, and livestock is affected by regular disease outbreaks. Impacts of climate changes are perceived by the West African populations, but their causes are not well understood.

BIODEV preparation was a long process and took place in years 2007-2011. It is implemented by ICRAF, with CIFOR, University of Helsinki, and University of Eastern Finland as partners. The partner countries are Burkina Faso, Sierra Leone, Guinea, and Mali. The first two include landscape activities whereas in the latter two countries there are activities only at national or policy level. The budget consists of MFA contribution alone and is 10 million euros for 2012-2016. The project purpose is “to develop and implement science-based, validated, high-value biocarbon approaches to sustainable rural development across a range of contrasting locations in West Africa, and to disseminate these results and build capacity for their scaling up in Africa”. During its implementation, the Project has faced serious outside problems, such as Ebola Virus Disease in Sierra Leone, and political instability in Mali and Burkina Faso.

To organize the operations of the Project, it is divided into seven **work packages**. Their key characteristics are summarized in the table below.

Work package	Main partner and WP leader	Other partners
WP 1.1 Local governance and market institutions.	ICRAF Ann Degrande	Burkina Faso: INERA, TreeAid, Nununa, WEND_PUIRE Sierra Leone: SLARI
WP 1.2 Agroforestry and farm interventions	ICRAF Antoine Kalinganire (co-leader Catherine Dembele)	Burkina Faso: INERA, CAF, DPERH Sierra Leone: SLARI Guinea: MinAgri – Extension Services, IRAG
WP 1.3 Sustainable forest management	CIFOR Mathurin Zida (since 9/2015) Michael Balinga (until 9/2015)	Burkina Faso: INERA/DPF, University Aube Nouvelle, University of Ouagadougou, TreeAid
WP 1.4 Sustainable wood energy	University of Eastern Finland Sari Pitkänen	ICRAF, University of Helsinki, CIFOR Burkina Faso: Association Tiilpaaga, University of Ouagadougou Sierra Leone: Univeristy of Njala
WP 1.5 Carbon measurement and monitoring system	ICRAF Ermias Betemariam	Burkina Faso: INERA Sierra Leone: SLARI University of Helsinki / Dept. of Geosciences & Geography
WP 2 Replicable tools and frameworks for high value biocarbon	ICRAF Cheikh Mbow	Burkina Faso: INERA Sierra Leone: SLARI
WP 3 Policies and capacity for scaling up	University of Helsinki / VITRI Markku Kanninen (co-leader Fobissie Kalame)	Burkina Faso: SP/CONEDD, National REDD+ / FIP coordination unit Sierra Leone: MAFFS

Regarding **relevance**, the Project has reached directly about 500 beneficiaries instead of the 100,000 defined in the project document. Its contents are considered highly relevant by all those who have been reached. They consist mainly of four villages in Cassou area (landscape level), and INERA and SP/CONEDD (national level) in Burkina Faso. Various organisations in partner countries have also benefitted from

BIODEV. The work in humid tropics has been justified but the work in Sierra Leone has not produced expected results. Cross-cutting objectives and human rights based approach have not been operationalized in the project design, with the exception of climate sustainability that is at the core of the Project.

Effectiveness of BIODEV is not satisfactory as the progress of operations has been slow. In Sierra Leone the situation is more serious than in Burkina Faso. Most of the achievements have been outputs, not outcomes. There are many expectations about the achievements to be made in 2016. Little has been invested in training, and there are indications of a scope creep. There has been no connection to the operations of the MFA funded MICCA project, although BIODEV finances it with 225,000 euros.

When assessing the **efficiency**, the achievements have been modest in comparison to the sizeable budget of 10 million euros. In part this is due to outside problems. Most funds have been utilized in human resources. Transaction costs have been high due to complex project structure. There is no specific plan or allocation to dissemination, but training has partly served that purpose.

Analysis of **impact and sustainability** reveals that there is a significant gap between the overall objective and project purpose, on one hand, and the current achievements, on the other. There is no systematic monitoring of outcomes. Training activities have strengthened capacities. The sustainability after BIODEV is a question mark, as most beneficiaries and stakeholders trust in continued donor funding. A particular point are the students sponsored by BIODEV and its partners. The continuation of the support after BIODEV termination needs to be clarified. Regarding the sustainability, BIODEV team's main expectations are on seedlings, biocarbon project, and rural resource centers and related innovation platforms.

Project design and management includes challenges. It has not been easy to make seven work packages into one project, and WPs have much autonomy. There is a complicated and self-steering management structure, with little MFA involvement. The closure of ICRAF office in Sierra Leone has had major negative impact on running the operations. The risk analysis in the project document was unable to foresee big risks that materialized.

Joint conclusions were drawn from this evaluation and the mid-term reviews of FoodAfrica and CHIESA in 2014. Their experiences hardly do not support continuing with the same concept. Instead the MFA could consider

- Either to plan and implement with more active MFA involvement, with institutions as support partners, or
- Focus on CGIAR core funding or selected CRPs.

More emphasis should be put on national knowledge systems. Self-steering management arrangements should be avoided. Regional (supranational) projects should involve not more than 2-3 countries and be applied only when the addressed problems have a truly regional character and when strong patterns and conditions for regional cooperation are already in place. Projects should be visioned and sequenced with long term.

Recommendations are presented in the table below.

Recommendation	Responsible for the implementation	Timing of the implementation
A joint meeting of the Consortium Council and Steering Group should be held to assess a) the situation on the basis of the evaluation results, b) the proposal of the BIODEV management on how to the evaluation results will be taken into account.	Project management	By end of April 2016
BIODEV should prepare a concrete and budgeted plan for the non-cost extension of the Project until 31.12. 2016. The proposal should include an action plan and indicate <ul style="list-style-type: none"> • What will be the division of foci and respective resource allocations between strategic options, such as Burkina Faso vs. Sierra Leone, landscape activities vs. consolidation of research results, generating research vs. disseminating available results, and service delivery vs. capacity strengthening. • How the dissemination and communication of the key experiences and achieved results will be implemented. • What will be the achieved results (not activities or outputs) by the end the 	Project management and Steering Group	At latest two weeks before the CC&SG meeting

Recommendation	Responsible for the implementation	Timing of the implementation
<p>Project. In particular, a recapitulation of the research results should be presented in a comprehensive way.</p> <ul style="list-style-type: none"> • Which parts of the objectives defined in the project document will be difficult to achieve. • The definition and meaning of 'biocarbon approaches' should be concretized so that it explains the result-based significance of the BIODEV project purpose. • Research results and related tools that are and will be produced by BIODEV, available at the end of the Project. • Sustainability plan of the Project, including institutional responsibilities for follow-up activities, as well as time-bound exit and handing-over schedule. • The proposal must include a plan how the funding of the PhD and MSc students will be secured after the termination of the Project. • The proposal should include indications of how the results of the supported MICCA project could be utilized in BIODEV. • How human rights based approach could be operationalized during the remaining period of the Project. • Explicit and concrete exit plan. 		
If the proposal fulfills the above mentioned criteria and if there are sufficient remaining funds, MFA should approve a non-cost extension until the end of 2016.	MFA	In two weeks after the CC&SG meeting
If the proposal for non-cost extension includes a stronger emphasis on landscape activities in Sierra Leone, ICRAF should consider placing the current country coordinator for Burkina Faso in Sierra Leone for the remaining time of the Project, that is, for six to nine months. This would be a rapid and efficient way to increase BIODEV coherence and make sure that landscape activities in Sierra Leone take advantage of the Burkinabé experience.	Project management and Steering Group	By end of April 2016
Work packages 1.2 and 3 should name their Co-Leaders as the Leaders.	Steering Group	By end of March 2016
BIODEV should look for concrete ways how horizontal collaboration between its African beneficiary institutions can be strengthened and continued after the Project's termination. A particular attention should be given to collaboration between INERA and SLARI.	Project management and Steering Group	As a part of the sustainability plan
Internal evaluation exercise foreseen in September 2016 should focus on results instead of activities and outputs. It should assess possible multiplying and lasting effects by the Project, such as training of additional farmers by the direct beneficiaries. It should also focus on possible changes in institutional capacities brought about by BIODEV operations. MFA should comment the ToR of the assessment when it is being planned.	Project management and Steering Group	August-September 2016
Currently the BIODEV M&E activities do not focus in strengthening the respective capacities of relevant national institutions. BIODEV should implement a consultancy to reinforce the M&E systems and mechanisms of INERA and SLARI in their efforts to promote biocarbon approaches.	Project management and Steering Group	By June 2016
Plans to address critical issues of high risk potential, such as water supply to seedlings and market gardens at RRCs, should be concretized.	Project management and Steering Group	As a part of the sustainability plan
Review unrealistic or incoherent expected achievements, such as the ones of the WP2 and WP3, mentioned in the last bullet point of the section 3.2.	Project management and Steering Group, to be decided by CC	By end of April 2016

On the basis of the BIODEV experience, the MFA should

- Require that project documents always fulfill MFA standards. The terminology must be coherent and unambiguous, terms of reference for key posts and governing bodies must be included. Support information, such as relevant maps, are desirable.
- Representation of landscape level beneficiaries' interests should be ensured in the project governance. If this is not feasible directly through the beneficiary groups, it could be arranged by their legitimate and representative organizations, such as farmer associations.
- Project management and monitoring arrangements must include an appropriate role for the MFA, which enable its participation in timely decision making as well as receiving information.
- Particular attention must be paid to the risk analysis in a project document. They must be realistic and systematic assessments, instead of checklists routinely filled out. This may imply methodological development work from MFA's part.

BIODEV Evaluation

- Project documents need to include an explicit and documented analysis of needs and problems to be addressed, together with a description of how the analysis process has been carried out. There must be an evident and logical relationship between the analysis and the project design.
- No project preparation must take 4-5 years.

1. Introduction

Government of Finland has supported Building biocarbon and rural development in West Africa (BIODEV) project¹ since 2012. Its focus is in high value biocarbon² approaches, through which the Project intends to produce long term livelihood and environmental benefits to rural populations and global community.

At the request of the Finnish Ministry of Foreign Affairs (MFA), an evaluation of BIODEV was implemented during January-February 2016. It included a field visit to Mali and Burkina Faso from February 3 to 13. The itinerary and the work programme of the field visit are in the Annex II. The evaluation was carried out by Mr. Klaus Talvela, independent consultant.

As defined in the terms of reference (Annex I), the objective of the evaluation was to “provide an independent assessment of the performance and progress of the BIODEV project to-date. It shall assess to which extent the project has been able to achieve its objectives, and provide analytical observations on the strengths and challenges of project set-up, implementation and monitoring, management and coordination. Based on the analysis, the evaluation shall make operational and strategic recommendations for the remaining project period, in order to facilitate a smooth closing down process, and sustaining the key achievements of the project when the MFA funding will come to end.”

In his work, the evaluator utilized review of documentation and stakeholder interviews as the main methods of data collection. The sources to obtain documents have been multiple: MFA, implementing partners, development partners, web sites, professional networks, and various stakeholders in the partner countries. Consulted persons are listed in the Annex III.

For reading the report, it is useful to know how its main sections have been constructed. The section 2 is a descriptive one, stating basic facts and characteristics of the Project, without drawing conclusions. The findings and conclusions, because of their intertwined nature, are presented together in the section 3. Recommendations in the section 4 are based on findings and conclusions. Consequently, their substantiations are located in the section 3.

An evaluation is a management tool, rather than research. Therefore, one should not expect that all the facets of all work packages and components of BIODEV are included in this report. In several occasions, the evaluator has referred to examples and illustrative cases, instead of forming exhaustive lists of all relevant aspects. When drawing conclusions, possible limitations of the evidence base are pointed out. Those who manage the WPs and the Project should decide to which extent the referred samples are valid to other cases. If they can trigger action-oriented reflection processes among the stakeholders, the evaluation will have fulfilled most of its tasks.

The author of this report wishes to thank all those organisations and individuals who collaborated with and contributed to the evaluation. The opinions presented in the report belong to the evaluator alone and do not necessarily correspond with those of the Government of Finland.

¹ In BIODEV documentation, both 'project' and 'programme' are used. In this report the BIODEV is referred to as the Project.

² The Project Document defines 'high-value biocarbon development' as a process of using forestry, agroforestry, and trees to derive a broad range of development and environmental outcomes (not only for carbon).

2. Context and project design

2.1. Context of the Project

The effects of global climate change are particularly felt in West Africa. According to Intergovernmental Panel of Experts on Climate Change (IPCC), the sub-region will experience impacts such as increased intensity of extreme weather events, droughts and water stress, warming of water and decreasing fish production, land degradation, and changes in the distribution of animal and human vector-borne diseases. Fluctuations in weather patterns are becoming more common. Crops in West Africa are already affected by drought and depletion of water resources. Pests and diseases are common, and livestock is affected by regular disease outbreaks. Impacts of climate changes are perceived by the West African populations, but their causes are not well understood.

BIODEV was developed in 2007-2011 in the **international context** of continuing attention in poverty reduction and growing focus in climate change. Institutional and policy responses in Africa to these global threats have been multiple.

- African Union (AU) supervises the New Partnership for African Development (NEPAD), which steers the Detailed Program African Agriculture Development (PDDAA) that integrates the adaptation of agriculture to climate change.
- Economic Community of West African States (ECOWAS) has established an environmental policy, with the objective to “reverse environmental degradation and depletion of natural resources, ameliorate the quality of the living environment, conserve biological diversity, with a view to ensuring a healthy and productive environment; thereby improving the well-being of the ecosystem and the population of the sub-region”. In June 2015, ECOWAS adopted a Framework for Climate Smart Agriculture (CSA) in the Sahel and West Africa. It has also adopted policies governing water and desertification. Since December 2012, the region and its international partners have sealed a Global Alliance for Resilience (AGIR), under the political leadership of ECOWAS and UEMOA.
- West African Monetary and Economic Union (UEMOA) has defined a Common Policy for the Improvement of the Environment (CPIE) and Agricultural Policy of the UEMOA (APU). The former refers specifically to the UN Framework Convention on Climate Change (UNFCCC) and UN Convention to Combat Desertification (UNCCD), whereas the latter underlines reinforcement of food security, development of markets, and improvement of adaptation.
- Permanent Interstates Committee to Combat Drought in the Sahel (CILSS) was established in 1973 and continues to be one of the most active sub-regional organisations in the fields of desertification, sustainable land management and climate change. CILSS and its Agrhymet Regional Centre co-ordinate the implementation of a growing number of regional and international initiatives: Regional Sahel Pastoralism Support Project (PRAPS); Global Water Coalition for the Sahel; Sahel Irrigation Initiative Programme (SIIP); and West Africa Component of the Global Climate Change Alliance (GCCA+).

UN Sponsored REDD Programme currently supports 26 countries in Africa, but, according to REDD web site, none of the four BIODEV countries are currently involved. In Burkina Faso REDD+ is under preparation with the support of the World Bank sponsored Forest Investment Programme (PIF). The idea of REDD+ is that developed countries provide funding for measures that halt forest loss in tropical countries and, in return, obtain credit for the emissions saved through REDD+ activities. The mechanism has been criticized because of complex calculations difficult to verify and for being unfavorable to peasant communities in LDCs.

UNFCCC Conference of Parties in Paris in December 2015 (COP21) has been greeted as a positive step for more adaptation and mitigation in the agricultural sector. The Paris Agreement commits developed countries

to set a new financing goal of at least 100 billion USD per year. It is not known what would be the share allocated for agricultural adaptation and mitigation by Least Developed Countries (LDC). Green Climate Fund (GCF) and Global Environmental Facility (GEF) are entrusted to administer the support to developing countries.

While COP21 outcomes have generally been regarded as a positive step in combatting climate change, major question marks exist. CONEDD in Burkina Faso is concerned with the legal status and subsequent binding force of the Paris Agreement, as well as with the financing of the Green Climate Fund. Sub-Saharan African countries have high expectations on the GCF in implementation of their national policies.

Based on international conventions, several mitigation mechanisms have been established. Under the UNFCCC there are four initiatives: Nationally Appropriate Mitigation Actions (NAMAs), Clean Development Mechanism (CDM), Reducing Emissions from Deforestation, forest Degradation and the role of conservation, sustainable management of forests and the enhancement of forest carbon stocks (REDD+), and Intended Nationally Determined Contributions (INDC). NAMAs are voluntary for developing countries and can cover a variety of sectors. Mali is the only country from the CILSS/ECOWAS area to have submitted a NAMA, and Burkina Faso has one in preparation. The CDM allows developed countries to meet part of their commitments by financing emission reduction projects in developing countries. CDM projects have benefited little to Africa because of many limitations: carbon price fluctuations, complexity of the procedures, high transaction costs, and complicated rules for reforestation. INDCs were widely presented in the COP21 but it is not yet clear how these contributions will be supported. While there is no binding requirement for countries to implement their intended contribution, much emphasis is put on cooperation and public investment. Almost all West African countries presented their INDCs to the COP21.

Outside of the UNFCCC, funding is available for mitigation, especially in the agriculture and forest sectors: Forest Carbon Partnership Facility (FCPF), Forest Investment Programme (FIP), Global Alliance against Climate Change (GCCA), International Climate Initiative of Germany (ICI), and Japan Initiative for Fast-Start Actions.

The 15 agricultural research centres belonging to the Consultative Group on International Agricultural Research (CGIAR) initiated a process of developing a structure in which the various Centres would work collaboratively. This long process was finished by 2012 when the CGIAR Research Programmes (CRPs) were started. Currently, there are 16 CRPs in all. Intended outcomes are reduced rural poverty, increased food security, improved nutrition and health, and sustainably managed natural resources. In CGIAR, the Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by CIAT.

Government of Finland (GoF) 2007 Development Policy Programme emphasized regional and thematic cooperation in Sub-Saharan Africa, with a focus on areas where Finnish partners can add value. The 2009 Development Policy Framework Programme for Africa emphasized West Africa, a region where there had been little long-term Finnish development aid, and areas of food security, climate change and sustainable forest management. Efforts were also focused on regional integration, trade, and information.

By 2012, Finland had developed a new Policy Programme emphasizing, as a corner stone to development, human-rights based approach (HRBA). Its goal is that all people, including the poorest, know their rights and can act for them, and that authorities know their obligations and how to implement them. The approach also includes emphasis on effectiveness and impact, through a results-based management approach. The new Policy also defines three cross-cutting objectives for Finnish development cooperation: promotion of gender equality, climate sustainability and reduction of inequalities. Finally, the Policy Programme delineates four areas for priority efforts: democratic and accountable society that promotes human rights, an inclusive green economy that promotes employment, sustainable management of natural resources and environmental protection, and human development.

In its programme of 2015, the current Finnish government underlines the following areas in the GoF supported development cooperation:

- Status of women and girls.
- Democracy, human rights, rule of law, building of peace, free media, anti-corruption work, and strengthening of tax base.
- Energy, water, and food as a part of sustainable development (incl. response to climate change).
- Enterprises, their operational environment, and responsible entrepreneurship.

The most recent delineation is the Finnish Government Report on Development Policy, adopted on February 4, 2016. It puts emphasis on sustainable economic growth, the status of women and the solving of challenges faced by fragile states.

MFA's 2010 Development Policy Guidelines on Agriculture and Food Security established as priority areas food availability, food quality and safety, access to food, and ecologically sustainable food production. The Guidelines emphasize areas where there is added value from Finland's participation. The Guidelines also underscore need for agricultural research, capacity building, and education for food security improvement. Development Policy Guidelines for Forest Sector (2009) identified strategic partnerships with institutions funding and implementing research and development, such as CIFOR, ICRAF and CATIE.

2.2. Project design

BIODEV preparation was a long process and took place in years 2007-2011. In June 2008 at the MFA's request, ICRAF submitted a concept note titled "The Changing Climate for African Forests: Enhancing the Potential for African Smallholders to Benefit from Emerging Carbon Markets and New Technologies".

The dialogue continued and ICRAF submitted a proposal for MFA in July 2009. A second concept note was prepared in December 2009. In December 2009 MFA proceeded by defining terms of reference for ICRAF to start the project preparation. A second concept note was prepared by ICRAF in January 2010. In February 2010, ICRAF organized a workshop in Bamako in which intended partner countries participated. Its outcome was a report that supported the preparation of the project document, which was submitted to the MFA in May 2011. An external appraisal was carried out in December 2011 – January 2012. The appraisal concluded that "the proposed programme ... is an innovative new applied research/development initiative, which addresses important link between science-based research results and adaptation that is relevant to key MDG goals, such as poverty alleviation and promotion of sustainable development in the important area of climate change mitigation & adaptation in Africa". Revisions were suggested to the project document, after which the appraisal recommended financing of the Project.

In October 2011 MFA took the formal decision to finance BIODEV. In February 2012, ICRAF submitted the first version of the project document. The Project's financing agreement was signed on August 9, 2012, with the duration of four years and a budget of ten million euros. It was commenced with a six-month inception phase during which the project document was meant to be revised. The final version was ready 16 months after the end of the inception phase, in May 2014.

Work package teams report having started operations within a few months after the official BIODEV beginning. For some non-ICRAF partners it took substantially longer. WP1.3 (CIFOR) started in February 2014 and WP1.4 (UEF) in first half of 2013. The main causes of the delays were time-consuming contract negotiations between ICRAF and the two partners.

BIODEV operates in four West African countries. Burkina Faso and Sierra Leone benefit from landscape (field site) activities as well as from capacity building and policy level support. Guinea and Mali participate only in the latter form of operations. At the outset, Mali and Guinea were planned to be the 'landscape countries'. Before the beginning of the implementation Guinea and Sierra Leone switched roles, because political disturbances in Guinea. The coup d'état in Mali in March-April 2012 caused the planned landscape activities to be moved from there to Burkina Faso.

According to the project document, the Project has following **beneficiary groups**

- Key beneficiaries of BIODEV are rural villages and households in Africa. During the project period the target is in villages mainly in Burkina Faso, Sierra Leone, Mali, and Guinea.
- Local organizations such as farmer groups, including women groups, and local governing bodies.
- National development, policy and research organizations in the four primary countries.
- Universities of Bobo-Dioulasso and Ouagadougou in Burkina Faso, and Njala University and Fourah Bay College in Sierra Leone.
- National government agencies, including several ministries, especially extension and forestry departments.
- Regional and global institutions, to promote their capacity in climate change adaptation and mitigation and in sustainable land management.

The work package teams mention the same beneficiary groups, mostly by specific and targeted names. None of the WPs define any regional (supra-national) or global institutions as their beneficiaries, although the project document mentions organizations such as INSAH, ECOWAS, and CORAF.

The project document defines that "BIODEV aims to benefit about 1,200 square kilometers of rural landscapes in Mali, Sierra Leone, and Guinea. In these landscapes, we estimate that about 20,000 households (about 100,000 people) reside and will benefit from BIODEV through various interventions."

In Burkina Faso the landscape site consists of several villages around Cassou Forest in Ziro province, approximately 120 km south-east from Ouagadougou. BIODEV operates in four of them (Cassou, Dao, Vrassan, Kou). The choice of these four villages was made during a stakeholder consultation workshop to reflect overall situation in the landscape and also taking into consideration likelihood of impact. Cassou area is one of the two sites in Burkina Faso where CRP activities take place. Thus it benefits also from other CGIAR operations, not only from those of ICRAF and BIODEV. To organize the gathering and marketing of fuel wood, the relevant geographical zones in Burkina Faso are defined as Forest Development Sites (*Chantier d'Aménagement Forestier*, CAF). One CAF can be divided into several Forest Development Units (*Unités d'Aménagement Forestier*, UAF). People living in or close to CAF can be members of Forest Management Groups (*Groupement de Gestion des Ressources Forestières*, GGF). Several GGF can form a Union (UGGF), which is the management body of a CAF.

In Sierra Leone the landscape site is in Otamba Kilimi National Park (OKNP) in Bombali District, Northern Province of the country, where BIODEV project is implemented in five pilot communities (Fintonia, Kaba Ferry, Moria, Samaya and Sanya) around the park. In Mali and Guinea there are no landscape sites. The one in Sierra Leone is adjacent with an area on the Guinean side with same ethnic groups, language, and environmental challenges, such as illegal logging and deforestation. Initially, Guinea was envisaged to be one of the two landscape level countries of BIODEV. As a result of political instability in Guinea in the beginning of the decade, the landscape operations were transferred to Sierra Leone, to be implemented on the other side of the border. The Guinean side was planned to be included also in the landscape site, but this has not taken place because of Ebola Virus Disease (EVD) and the closing of ICRAF office in Sierra Leone.

In the table 2.1. numbers of BIODEV direct beneficiaries are summarized, as reported by the WP leaders. All the reported landscape level beneficiaries are from Burkina Faso, with the exception of seven field

measurement technicians from Sierra Leone, trained by the WP 1.4 and 1.5. It is probable that some of the beneficiaries reported by separate work packages are same individuals. Thus summing up numbers of the table 2.1. does not result in the total number of beneficiaries.

Table 2.1. Number of BIODEV direct beneficiaries.

WP	Landscape level	National level
WP 1.1	63 IP members (17 women) 66 trained farmers (26 women)	120 participants in training courses 1 PhD student, 3 MSc students
WP 1.2	415 RRC members (300 women)	3 MSs students
WP 1.3	150 members of GGF	Institutions, not quantified 5 MSc students
WP 1.4	21 women trained on improved stoves 10 technicians of BF and 7 of SL trained in field measurement together with 1.5	University lecturers and researchers, not quantified
WP 1.5	WP1.5 and WP1.4 jointly trained 17 technicians in BF and SL	50 people from national institutions
WP 2	Local communities, not quantified	National partners, not quantified
WP 3	<i>not specified</i>	Over 100 people trained 3 PhD students

PhD and MSc students are a particular group that benefits from BIODEV support. Three of the students (Dina Antine Wendkouni Zougmore, Juliette Ngalimn, and Mawa Karambiri) are female. Nine of the students are from Burkina Faso, two from Cameroon, one from Ethiopia, one from Mali, and two from Sierra Leone. In addition, WP 1.5 has supported two technical assistants assisting in field data collection in the Taita Hills, Kenya, and data analysis. Some WPs have supervised other MSc students. Currently the support to students is allocated as described in the Table 2.2.

The form of support varies from one student to another. In some cases, it consists of a full scholarship whereas in others it is limited to specific courses and supervision of thesis. Regarding the three PhD students that are planned to start their studies at the University of Helsinki in March 2016, the University requires that the doctoral students have funding to carry out their research and studies. According to WP3 that has been secured through an arrangement with ICRAF, from which each student is secured for three years of funding. The students were accepted as doctoral students in May 2015, and since then they have been working with their research plans and actual field research. They are starting the course work in March 2016. This arrangement is intentional so that the field research and course work go hand in hand. Each year they will spend about three months doing course work and nine months doing research.

Table 2.2. University students supported by BIODEV.

Name and country of student	Level of studies	Start and end date of studies	University
Ali Pare, Burkina Faso	MSc	1.8. 2014 – 31.1. 2015 (defended thesis in January 2016)	University of Ouagadougou
Paul-Marie Sawadogo, Burkina Faso	MSc	1.8. 2014 – 28.2. 2015 (thesis submitted and awaiting defending)	University of Bobo-Dioulasso
Gilbert Zoure. Burkina Faso	MSc	1.1. 2016 – 30.6. 2016	University of Ouagadougou
Dina Antine Wendkouni Zougmore, Burkina Faso	MSc	- July 2015	University Aube Nouvelle
Jean Aimé Kintiga, Burkina Faso	MSc	Completed, waiting for thesis defense	University of Ouagadougou
Mahamady Soro, Burkina Faso	MSc	- November 2015	University of Ouagadougou

Name and country of student	Level of studies	Start and end date of studies	University
Sibiri Birba , Burkina Faso	MSc	- January 2015	University of Ouagadougou and University Senghor
Juliette Ngalimn, Burkina Faso	MSc	- July 2015	University Aube Nouvelle
Mawa Karambiri, Burkina Faso	PhD	March 2016 - March 2019	University of Helsinki / VITRI
Ibrahim Touré. Mali	PhD	March 2016 - March 2019	University of Helsinki / VITRI
Edward Amara, Sierra Leone	PhD	March 2016 - March 2019	University of Helsinki / Department of Geography
Daniel Etongo Bau, Cameroon	PhD	2012 - June 2016	University of Helsinki / VITRI
Yitagesu Tegegne, Ethiopia	PhD	2014 - late 2016	University of Helsinki / VITRI
Tabi Agbor, Cameroon	MSc	- March 2016	University of Helsinki / VITRI
John Koroma, Sierra Leone	PhD	2015 -	University of Njala, with courses at the University of Eastern Finland

The **problems to be addressed** are defined in the project document as follows:

At landscape level

- Increased pressure for agricultural land.
- Inappropriate or weak governance.
- Multi-layered property rights arrangements over natural resources, including unclear and often discriminatory rights of disadvantaged groups and women.
- Underdeveloped markets for forest, tree and agricultural products.
- Lack of awareness of the importance of environmental stewardship.
- Inadequate information on agroforestry opportunities.
- Underdeveloped tree germplasm and crop seeds delivery systems.

At carbon market level

- Measurement and monitoring of carbon.
- Identification of sufficient incentives to induce investment in high-value biocarbon development.
- Institutional arrangements to aggregate, sell, and reward sequestered carbon.
- Increased capacity of actors to manage a range of functions required in a carbon supply chain.

While the listed problems are relevant and based on ICRAF's extensive experience from the region, the project document includes no description of how the problem analysis was carried out. There is neither ranking nor causal relationships of the problems described. Consequently, it is difficult to say which of the problems would be the core one, creating the basis for the definition of the development objective and project purpose. At carbon market level, the issues are defined as topics, not as problems. There are no problems defined at the policy and institutional level, although this has been selected as one of the key areas where the Project operates.

In combination with the problem definition, the project document describes a three-pronged strategy it will adopt "for maximizing value addition and generating outcomes of significance":

- Diagnostic analyses of key barriers and opportunities to biocarbon development, action research, development implementation and capacity building in large benchmark landscapes in Burkina Faso and Sierra Leone.
- Seeking of collaboration with other existing projects, programmes and initiatives to simultaneously broaden the impact and to enhance sharing and learning.
- Strengthening of policies, institutions, and capacities in order to enable replication of these frameworks and interventions in other landscapes.

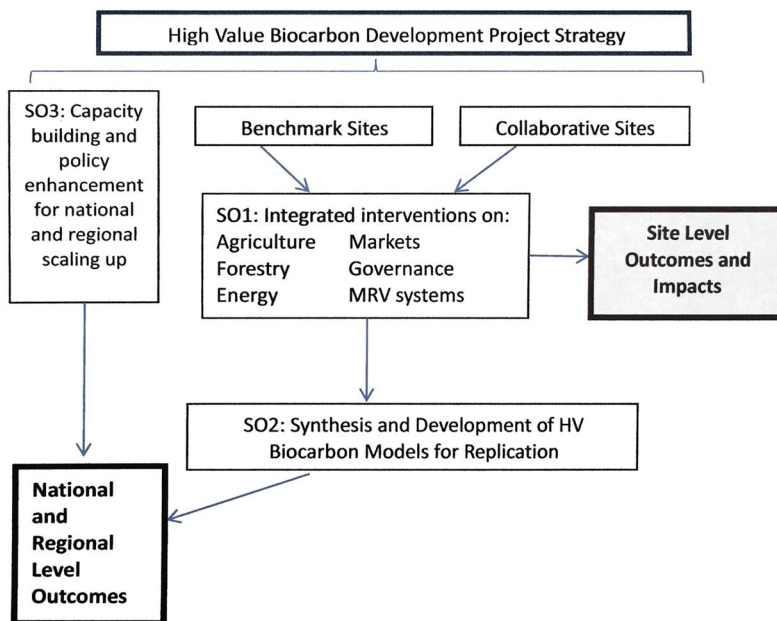
Regarding the **intervention logic**, the project document defines the overall objective as follows: “The broader development goal is to achieve sustainable rural development with long-term livelihood and environmental benefits to rural populations and the global community under climate change through high value biocarbon approaches”.

The project purpose is “to develop and implement science-based, validated, high-value biocarbon approaches to sustainable rural development across a range of contrasting locations in West Africa, and to disseminate these results and build capacity for their scaling up in Africa”.

Along with the project purpose, three sub-objectives are defined:

1. To identify and implement context-appropriate integrated interventions for achieving high-value biocarbon based rural development in case study landscapes.
2. To develop replicable tools, methods, and models of high value biocarbon interventions and approaches for scaling up.
3. To improve strategies, policies, and capacity for scaling up of high value biocarbon approaches at national and regional levels.

The Graph 2.1. is copied from the project document. It describes the role of each sub-objective (SO) in the overall strategy of BIODEV. The SOs 1,2, and 3 correspond with the work packages 1.1 to 1.5, 2, and 3, respectively.



Graph 2.1. Schematic of BIODEV Strategy for Achieving Outcomes and Impacts (from project document).

The project document includes a logical framework matrix, as well as a narrative text and supporting tables on the intervention logic. Its assessment is made somewhat difficult because of use of a terminology that is not a standard in MFA projects, although it may be applied by other development partners. Hierarchical relationships and possible synonyms cannot be easily established between overall objective, goal (different at programme, country and WP levels), purpose (different at programme, country and WP levels), objective, sub-objective, impact (short-term), target, outcome, and output. Some of the sub-objectives in the narrative are the same as in the LogFrame but some or not.

To organize the operations of the Project, it is divided into seven **work packages**. Their key characteristics are summarized in the Table 2.3. below.

Other partners mentioned in the third column of the Table 2.3. are ones named by the WP Leaders. There are others in the project document. For example, University of Helsinki is a participating institution also in the WP1.3, CIFOR and University of Helsinki in the WP2, and CIFOR and UEF participate in WP3.

Each of the work packages contributes one of the sub-objectives. The ones from 1.1 to 1.5, called as landscape interventions, aim at achieving high-value biocarbon rural development. Work package 2 develops replicable tools, methods, and models, whereas the work package 3 improves strategies, policies, and capacity for scaling up.

As can be seen in the table 2.3., most of the BIODEV partners are in Burkina Faso and Sierra Leone. WP 1.2 mentioned also partners in Guinea. None of the WPs named partners in Mali or at international level.

Table 2.3. Work packages of BIODEV.

Work package	Main partner and WP leader	Other partners
WP 1.1 Local governance and market institutions.	ICRAF Ann Degrande	Burkina Faso: INERA, TreeAid, Nununa, WEND_PUIRE Sierra Leone: SLARI
WP 1.2 Agroforestry and farm interventions	ICRAF Antoine Kalinganire (co-leader Catherine Dembele)	Burkina Faso: INERA, CAF, DPERH Sierra Leone: SLARI Guinea: MinAgri – Extension Services, IRAG
WP 1.3 Sustainable forest management	CIFOR Mathurin Zida (since 9/2015) Michael Balinga (until 9/2015)	Burkina Faso: INERA/DPF, University Aube Nouvelle, University of Ouagadougou, TreeAid
WP 1.4 Sustainable wood energy	University of Eastern Finland Sari Pitkänen	ICRAF, University of Helsinki, CIFOR Burkina Faso: Association Tiilpaaga, University of Ouagadougou Sierra Leone: Univeristy of Njala
WP 1.5 Carbon measurement and monitoring system	ICRAF Ermias Betemariam	Burkina Faso: INERA Sierra Leone: SLARI University of Helsinki / Dept. of Geosciences & Geography
WP 2 Replicable tools and frameworks for high value biocarbon	ICRAF Cheikh Mbow	Burkina Faso: INERA Sierra Leone: SLARI
WP 3 Policies and capacity for scaling up	University of Helsinki / VITRI Markku Kanninen (co-leader Fobissie Kalame)	Burkina Faso: SP/CONEDD, National REDD+ / FIP coordination unit Sierra Leone: MAFFS

The project document mentions the three **cross-cutting themes** (objectives) defined in GoF Development Policy Action Plan of 2012: gender equality, climate sustainability, and reduction of inequalities. It does not, however, explain how these will be operationalized in BIODEV activities. Human rights or respective approach are not addressed in the project document.

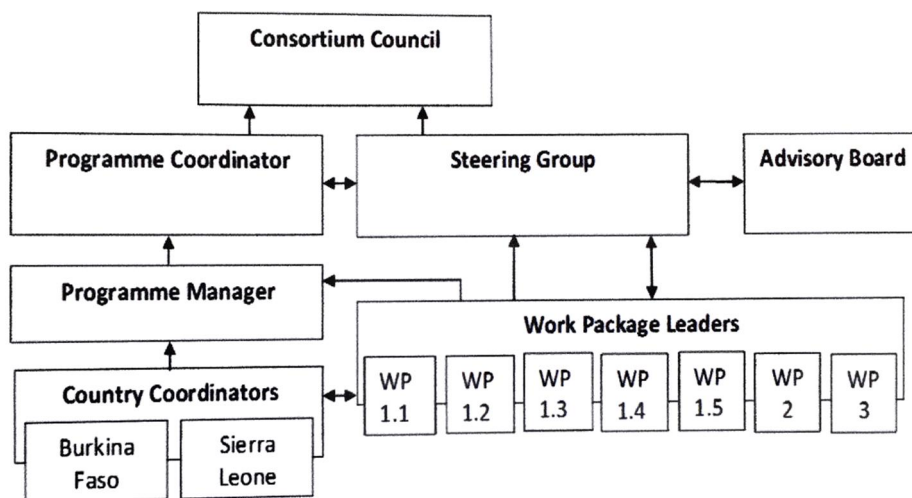
The project document makes ambitious statements about **monitoring & evaluation** arrangements. “The M&E approach goes well beyond traditional tracking of indicators ... particular attention is paid to the design of the monitoring system”. Indicators should be measured at three levels (household, community, national), baseline studies are to be conducted, socio-economic and environmental impacts should be assessed with a before/after and with/without framework, and a high number of indicators are defined. A separate Monitoring and Evaluation Plan for BIODEV has been prepared.

In terms of intervention logic, BIODEV has planned to monitor two levels: activities/outputs by work package leaders, and outcomes/impacts through external evaluations (mid-term, end of project, and post project). An internal evaluation exercise, carried out by the BIODEV M&E team, is foreseen in September 2016. Two ICRAF staff members dedicate about 10% of their time to develop BIODEV’s M&E framework. WP leaders and country coordinators use part of their time to collecting and processing monitoring information. While BIODEV has its specific monitoring requirements, the information is compatible with the M&E systems of ICRAF. The monitoring information is disclosed in semi-annual progress reports. It is organized by three variables: outputs expected by the WP, outputs achieved, and comments on variance.

The **management structure** and reporting lines of BIODEV is described in the graph 2.2. There are three governing bodies, a project coordinator and a manager, two country coordinators (Burkina Faso and Sierra Leone), and work package teams with their appointed leaders. Their roles and responsibilities are defined in the Consortium Agreement, signed in April-May 2014 by University of Helsinki / Department of Geosciences and Geography, University of Helsinki / Department of Forest Sciences, University of Eastern Finland / Faculty of Science and Forestry, University of Eastern Finland / School of Forest Sciences, ICRAF, and CIFOR.

Consortium Council (CC) is composed of the main partners of BIODEV. It is chaired by ICRAF Director for West and Central Africa and includes as members representatives from CIFOR, University of Helsinki, University of Eastern Finland, MFA, as well as the Project Coordinator from ICRAF. The CC takes the major strategic decisions of BIODEV. It has met in March 2014 and in April 2015, both times in Helsinki, Finland. According to the minutes of the two meetings, CC seems to be a key mechanism for MFA to monitor the Project’s performance.

Advisory Board (AB) is made up of external experts from the four countries and chaired by ICRAF Director for West and Central Africa (like the CC). Members of the AB are representatives of INERA, TreeAid, and CONEDD from Burkina Faso; National Forest Administration and IER from Mali; SLARI, University of Njala, MAFF, and CSSL from Sierra Leone; CERE and IRAG from Guinea. The Advisory Board takes no decisions on BIODEV and it focuses on technical and scientific issues. So far it has had two meetings.



Graph 2.2. Management Structure of BIODEV: Reporting Lines (from project document).

The Steering Group (SG) is chaired by the project coordinator and includes the work package leaders, plus the project manager. It is scheduled to meet twice a year and has done so six times by now, either physically or through video. The Steering Group takes BIODEV operational decision. A typical SG meeting agenda consists of reviewing the progress of each work package and setting guidelines for their future plans.

Project Coordinator ensures the overall coordination of BIODEV. He is a senior ICRAF staff member based at the HQ in Nairobi. Project Manager is based at ICRAF Sahel Node in Bamako. He is a senior staff member and reports to the PC. He supervises the work of the WP Leaders and takes care of the BIODEV day-to-day management. The PM dedicates about half of his working time to BIODEV management.

BIODEV includes posts for two full-time country coordinators. Currently only the one for Burkina Faso is operational. The post of country coordinator for Sierra Leone was not filled after the ICRAF country office was closed in 2015. A SLARI staff member acts as a BIODEV focal point in Sierra Leone. The Coordinator for Burkina Faso is based at ICRAF Sahel Node in Bamako and travels regularly to Burkina Faso.

Work package leaders are responsible for the WP implementation. They are senior researchers from ICRAF and partner institutions (Table 2.3.) who in most cases dedicate a part of their time to BIODEV. They report to the Project Manager and, according to the project document, also to the Steering Group (although they themselves make up the SG). As BIODEV is only a part of their professional duties, they are partly paid by BIODEV funding. In the work package they work together with a team. The teams consist of four to ten professionals, in some WPs from separate institutions. The WPs plan their work quite autonomously, according to the general lines defined by BIODEV governing bodies.

The project document defines the following seven **risks** that can harm or slow down the Project:

- Instability or insecurity breaks out in one or more of the sites.
- Potential development partners will not collaborate with BIODEV, limiting its reach and impact.
- Difficulties in agreement among stakeholders may inhibit BIODEV progress and success.
- The global community or national governments do not move forward sufficiently to support climate change mitigation activities in agricultural landscapes.
- High inflation or adverse exchange rate movement (a weaker euro) will affect the BIODEV's ability to meet its deliverables in later years of BIODEV.
- Absorptive capacity of national development partners is not sufficient to enable swift scaling up.
- Absorptive capacity of beneficiaries to undertake the biocarbon approach.

All the risks have been characterized having a low or medium likelihood. Epidemics, such as Ebola virus disease, was not among the foreseen risks, although its outbreak in West Africa was known already at the time of the publication of the project document in May 2014.

Instability or insecurity in one or more of the sites was defined in the project document. This risk materialized at national level and had a major impact on BIODEV operations, through the coup d'état in Mali in March-April 2012 and political disturbances in Burkina Faso in 2014 and 2015. The events in Mali made BIODEV move its intended landscape activities from Mali to Burkina Faso. The decision and subsequent arrangements were made rapidly. The change did not interrupt activities as the Project had not yet begun. Terrorist attacks in Bamako in November 2015 and in Ouagadougou in January 2016 have not affected BIODEV activities.

A fraud was discovered in the ICRAF office in Sierra Leone in 2014 and the office was closed down in 2015. This has significantly hampered BIODEV operations in the country. Understandable, the occurrence of such a risk was not anticipated in the project document.

The overall **budget of BIODEV** for the four years 10 million euros. According to the project document, it consists 100% of MFA contribution. University of Helsinki / VITRI has reported it has budgeted 50,000 euros its own funds to WP 3.³ Department of Geosciences and Geography has invested 40,000 euros in kind (professor Pellikka's working time).

According to the numbers provided by ICRAF, in terms of budget, BIODEV allocated 7.1 million euros to the work packages (Table 2.4.). The WP shares of the total budget oscillate between 7% and 21%, the biggest receiver being the WP3 (21.3%) and the smallest the WP1.4 (6.8%). Some of the WPs have a high spending rate (WPs 1.5 and 2) whereas some have spent approximately half of their budgeted funds (WPs 1.1 and 1.3).⁴

Table 2.4. Budgeted and spent funds of the work packages of BIODEV, situation at the end of 2015.

	MFA budget for WP	Share of total	Spent	Spent %
WP 1.1	996 330	14,1 %	514 327	51,6 %
WP 1.2	909 822	12,8 %	759 690	83,5 %
WP 1.3	912 571	12,9 %	480 168	52,6 %
WP 1.4	481 655	6,8 %	276 273	57,4 %
WP 1.5	1 229 791	17,4 %	1 046 817	85,1 %
WP 2	1 045 406	14,8 %	999 261	95,6 %
WP 3	1 511 249	21,3 %	990 087	65,5 %
	7 086 824	100,0 %	5 066 623	71,5 %

The difference between the total BIODEV budget of 10 million euros and the 7.1 million euros reported by the WPs consists of the management & sites, managed by ICRAF directly, of 2.9 million euros.

In its financial reporting, ICRAF divides the expenditure into categories presented in the table 2.5. below. The budget line titles and amounts are not entirely identical with those of the project document. This is most likely due to budget modifications decided after May 2014.

Costs related directly to human resources (A+B+C) have been 59% of the total. The ones including expenses to the beneficiaries (D+E+F+H) made up 14%. A part of this was for non-beneficiary purposes, as it also includes cost items such as vehicles and office equipment & supplies. The remaining 27% is for transaction costs, including travel, general expenses, MICCA co-financing, programme meetings, and overheads.

The ICRAF overhead rate for BIODEV is 15% on the direct costs. In addition there is a 2% overhead charged by the CGIAR Consortium on the total budget, including center overheads. The support to MICCA project is 225,000 euros.⁵

³ All financial data utilised in this report is provided by ICRAF and work package teams. While the author is not responsible for their accuracy, he believes that, as a minimum, the magnitudes are correct and thus permit drawing the presented conclusions.

⁴ The figures describe the situation as of 31.12. 2015, reported by ICRAF.

⁵ In the project document, the budgeted support to MICCA is 151,559 € In addition, the budget line 'Support to other initiatives', 75, 779 € has been entirely utilized for MICCA, too (ICRAF financial services).

Table 2.5. BIODEV spending by end of 2015. (BIODEV financial report 2015).

BIODEV Oct 2012 - Dec 2015	Total budget		Spent 10/2012 - 12/2015		Budget - spent	
	euros	%	euros	%	euros	%
A Personnel / Staff salaries	4 824 435	48,3 %	4 013 697	50,6 %	810 738	83,2 %
B Consultants	223 728	2,2 %	440 078	5,6 %	-216 350	196,7 %
C International travel	590 086	5,9 %	194 454	2,5 %	395 632	33,0 %
D Field travel / operations	594 768	6,0 %	637 105	8,0 %	-42 337	107,1 %
E Capital items & equipment	416 610	4,2 %	283 039	3,6 %	133 571	67,9 %
F Supplies	297 970	3,0 %	121 395	1,5 %	176 575	40,7 %
G General expenses	406 903	4,1 %	520 916	6,6 %	-114 013	128,0 %
H Training	760 617	7,6 %	28 127	0,4 %	732 490	3,7 %
I Coordination	0	0,0 %	74 577	0,9 %	-74 577	
J Partnership & communication	0	0,0 %	53 396	0,7 %	-53 396	
K MICCA co-financing	151 559	1,5 %	152 021	1,9 %	-462	100,3 %
L Support to other initiatives	75 779	0,8 %	75 808	1,0 %	-29	100,0 %
M Programme meetings	182 697	1,8 %	162 447	2,0 %	20 250	88,9 %
N Overhead 15%	1 273 772	12,7 %	1 013 559	12,8 %	260 213	79,6 %
O CSP-2%	196 073	2,0 %	155 412	2,0 %	40 661	79,3 %
TOTAL	9 994 997	100,0 %	7 926 031	100,0 %	2 068 966	79,3 %

Utilization of the human resources of BIODEV work packages is summarized in table 2.6. The figures are based on the information from the WP leaders. The person-months in the table are divided into professional (pro) and support (aux) human resources.

Table 2.6. Utilization of human resources in BIODEV (person months).

	Utilization of human resources					
	HR pro MFA	HR aux MFA	HR pro own	HR aux own	HR total	Own/total HR
WP 1.1	26	32	0	0	58	0,0 %
WP 1.2	27	54	0	0	81	0,0 %
WP 1.3	21	2	0	2	25	8,0 %
WP 1.4	48	0	0	0	48	0,0 %
WP 1.5	85	79	0	0	164	0,0 %
WP 2	63	3	12	0	78	15,4 %
WP 3	60	0	4	1	65	7,7 %
	330	170	16	3	519	3,7 %

WP 1.5 is the biggest employer of human resources. 85% of its professional HR were utilized by the Department of Geosciences and Geography of University of Helsinki, meaning that in average two scientists from Department have been employed full time by BIODEV. According to the Department, it has had only one scientist all the time, as the MSc students (assistants) have not been full time employed. They have received about 600 € per month for 10 months. A scientist would cost 4500 euros per month. The total human resources cost for the Department and ICRAF are about the same

According to the information by the WP team, the use of human resources by WP1.3 has been modest. WPs 1.3, 2, and 3 have reported use of human resources of respective partner institutions in minor quantities.

3. Findings and conclusions

3.1. Relevance

The six **beneficiary groups** defined in the project document (see section 2.2.) are located at three levels: local, national, and regional (supranational). Another classification was presented by the project management: farmers, governments, and higher education.

Landscape level beneficiaries' sub-groups are not defined in detail. But they are well known because not many. Each work package has identified stakeholders and beneficiaries. In most cases, the WPs deal with same groups, sometimes in joint activities. Scoping studies have provided in-depth knowledge of relevant problems.

Regarding the landscape level beneficiaries, the key problem is their limited number. In practice and until now, it is a few hundreds of individuals (Table 2.1.), whereas the project document set the target as high as 20,000 households or 100,000 people. According to these figures, BIODEV has reached directly less than one per cent of the intended village level beneficiaries. In part, the number is small because of failed operations in Sierra Leone.

There is no documented information of how the number of intended beneficiaries was defined. Consequently it is difficult to assess the realism of trying to reach 100,000 people at the landscape level.

The Project is contemplating to increase the number of landscape level beneficiaries mainly in two ways. First, it thinks that direct beneficiaries can go back and train members of their respective groups. For example, the WP1.1 counts that if 56 trainers each train 20 group members, these sessions reach approximately 1200 farmers. There are no, however, concrete mechanisms and follow-up activities set up to make sure that the multiplying effect takes place. For example, the number of women trained in the use of improved stoves is known but there is no information on how many women are actually using them. Second, BIODEV envisages a horizontal scaling-up in the possible extension period of the Project. This would mean working in additional villages on top of the current four in Burkina Faso. In Sierra Leone, this would mean concrete landscape level activities starting.

In Cassou area, there are no particular vulnerable groups, unless women are regarded as such. Ethnicity is not an issue in Burkina Faso. Migrant people may be marginal because it is difficult for them to obtain land. But they may get around this obstacle, and they can do other activities. In Sierra Leone situation is less clear. As a post-war country many of its people are vulnerable. Many have fled from rural areas. There is a public rehabilitation programme to re-engage people into economic activities, but farming appears not to be high among the wanted occupations of most people.

At the national level, the most important beneficiaries are the two national services, INERA in Burkina Faso and SLARI in Sierra Leone, although BIODEV actors conceive them as partners rather than beneficiaries. INERA is satisfied with the BIODEV collaboration and estimates it has clearly benefitted from the Project in terms of improved capacity, skills and knowledge. With SLARI the situation is not positive to the same extent. Many of the planned activities have not taken place in Sierra Leone, due to EVD and the closing of ICRAF office. Consequently, SLARI has not benefitted of capacity strengthening the same way INERA has. On the contrary, SLARI considers it partially had to take the role in supporting field activities that should have belonged to ICRAF.

Universities of Ouagadougou in Burkina Faso and Njala in Sierra Leone have benefitted from BIODEV. For example, the WP1.4 has set up a learning network that plans to carry out training in 2016. Many public and civil society organisations from the four countries have profited from various BIODEV training events. All

the interviewed participants appreciated the training and many wished there would be more of the same kind. A particular beneficiary group are the PhD and MSc students that have been able to study with BIODEV support (Table 2.2.).

At the supranational level, WP3 has trained UNFCCC delegates from BIODEV countries for COP negotiations.

Regarding the **relevance with the beneficiaries' needs and requirements**, the assessment at the landscape level is complicated because there is no documented description and results of a comprehensive problem and needs analysis, if such was carried out during the BIODEV preparatory phase. Consequently it is not clear how the technical themes and WP contents were selected in the first place. It is, however, fair to assume that matching with beneficiaries' needs and requirements was a key criterion. For example, WP1.4 focuses on fuel wood because they stakeholders so wished. Another relevant area of UEF expertise would have been sustainable forest management, but that was seen a lesser priority.

There are several examples where knowledge and skill gaps were identified and needs were evaluated during project implementation and project interventions were designed to address those. For example, the participatory value chain actor mapping made an assessment of the current situation, bottlenecks and opportunities for value chain development. This was later verified by more in-depth value chain analysis. Marketing strategies were developed taking into account these findings. Another example is the capacity needs assessment that was done with the innovation platforms. The activity on market gardening by women was added. Participatory priority setting for tree species was done during the scoping surveys, and nursery activities have taken those tree species into consideration.

Among the institutional beneficiaries a need assessment was implemented in two workshops in the beginning of the Project. Representatives from all four countries participated and the conclusions led to formulation of capacity building plans and subsequent training activities.

The interviewed landscape level beneficiaries expressed a high level of appreciation for the BIODEV activities and support. This is logical, as the support has concentrated among a relatively small number of people, in four out of 27 villages in Cassou area, and all of them see and experience it tangibly. The collaboration with beneficiaries in the villages is direct, reliable, and transparent. BIODEV has paid for all equipment and investments, whereas people have contributed through labour force. They are expressing many ideas for future operations, such as a processing unit for shea butter (*karité*), new wells, pumps, solar panels, and additional Rural Resource Centres (RRC).

In absence of first hand knowledge about the situation in Sierra Leone, the picture of the relevance at the landscape level is less clear. It can be assumed that the planned activities match with needs and requirements there, too. Yet the low degree of achievements has probably caused frustration. For example, the beneficiaries in OKNP eagerly wait for Rural Resource Centres that have been promised to them. Some work packages, such as WP1.4, report that they have been able to carry out activities in Sierra Leone without major problems.

In general terms, all work packages and activities are well in line with partner governments' policies and strategies. All interviewed institutional partners consider BIODEV as a valuable partner in strengthening their capacities in mitigation and adaptation to climate change. At the same time, they wish that the Project could do more in this regard.

In Sierra Leone, SLARI representatives want BIODEV to take now a more active approach as, according to them, the Ebola Virus Disease is over. In absence of permanent ICRAF staff in Sierra Leone, SLARI representatives say they can identify capable NGOs that can help. ICRAF has made a corporate decision to work in Sierra Leone only through remote arrangements and not to send its staff there on long-term basis.

In Guinea, stakeholders think BIODEV has done little there, and thus they wish a continuation for the Project.

Working in humid tropics was a justified decision. There is a need to carry out climate change related work in major ecological systems and the outcomes from semi-arid zones cannot be reliably applied in humid ones. On the other hand, selecting Sierra Leone and OKNP as the humid tropics intervention area was an unfortunate choice because the outbreak of EVD prevented much of the work there. According to BIODEV management, Sierra Leone was chosen because of MFA's demand and because of ICRAF had implemented there a USAID supported project on which BIODEV could build. According to MFA, it wanted humid tropics to be included in BIODEV, but did not specify it had to be Sierra Leone.

BIODEV team frequently refers to EVD as the key reason for the slow or non-existent progress of operations in Sierra Leone. While it has definitely been a major impediment, it does not explain the low degree of achievements during the first 20 months. The Project was started in August 2012 and the first EVD deaths in Sierra Leone were confirmed in May 2014. Important problems have included the closing of ICRAF office in Freetown and logistical difficulties – such as travel, communication, and language - in linking Sierra Leone smoothly to the rest of BIODEV operations.

For ICRAF and its policies the Project is highly relevant. BIODEV is one of the biggest projects ICRAF implements. ICRAF is now starting DRYDEV, a comparable project with Dutch support. Its budget for five years is 45 m€ and will be implemented over 15 years. Important is also USAID funding, which is only for Mali. In addition, there are several smaller projects. Actors from CGIAR institutions think the Project strengthens CRP approach. ICRAF and CIFOR work together, with Bioversity and CIAT, to implement a 60 MUSD programme.

Both UEF and HU/VITRI say the Project is well line with their objectives.

Cross-cutting objectives⁶ and human rights are not explicit in BIODEV design. The appraisal report was submitted at the time of the publication of the GoF Development Policy in 2012. About the cross-cutting objectives and human rights it states the following:

“The cross-cutting objectives (notably gender, which is the first overarching theme of the new Action Plan) are considered in various parts of the document, but they should be integrated in the document in a more consistent way, making sure that women and other groups will have adequate access to benefits during and after the programme.”

“...the practical results and lessons learnt are likely to support the rights-based approach to development highlighted in the new Finnish Development Policy Action Plan.”

Climate sustainability is at the core of the Project and is embedded thoroughly in its strategy and operations.

Regarding gender equality, there are several actions targeted to women. Market gardens around the RRCs are in interest of women. The Project has sensitized all people in scoping studies but women were the most interested. In the landscape sites of Burkina Faso, in Kou and Dao villages many men participate whereas in Vrassam and Cassou beneficiaries are mostly women. Project manager and coordinator for Burkina Faso could not name a particular reason for this. A possible explanation is that women are interested in garden crops, whereas men focus a main field crops. Fuel wood and improved stoves are important for women.

The Project is gender oriented in the sense that many landscape level beneficiaries are women. It also pays attention to participation of women in training courses. Among the supported university students the share of women is not high, considering that only three out of the 15 supported by BIODEV are female. In spite of gender awareness among the Project actors there is no explicit gender strategy. Project has not developed innovative methods or tools for gender strategy, which could add value to gender work elsewhere. It seems that for some actors the strong female participation in villages has come more or less as a surprise.

⁶ The project document use the term 'cross-cutting themes' whereas the current GoF development policy operates with the concept of 'cross-cutting objectives'. The cross-cutting objectives in the GoF development policy of 2012 are three: gender equality, climate sustainability, and reduction of inequalities.

Project staff and collaborating organisations have expressed the need to look at gender issues related to BIODEV and WP 1.1 intends to organise a capacity development workshop on gender mainstreaming in July-August 2016, if no-cost extension is granted.

Regarding the reduction of inequalities, most people in the area are poor. Much of the income stems from off-farming activities. In Sierra Leone people are worse off in comparison to Burkina Faso. Most men are in towns, and women and youth have remained on farms. Even without a specific poverty reduction strategy, the activities aim at decreasing inequalities. However, due to the limited number of landscape level beneficiaries, the aggregate effect in this regard is likely to remain small.

BIODEV has no specific activities addressing human rights, although main activities bring about by-products that may have positive human rights effects. Land tenure has been addressed because it was necessary to enable reforestation. Women’s rights are fostered through advancing their economic status.

The Project has no specific objectives, indicators, activities, or budget lines related to CCOs and HRBA. For BIODEV, like many projects of its kind, it has been very difficult to come up with specific, innovative, and effective strategy to deal with cross-cutting objectives and human rights based approach.

3.2. Effectiveness

The achievement of the planned outcomes is a key question now when BIODEV has entered the last year of its operations. The project management and WP leaders consider Project is more or less on track, considering the important limitations due to EVD and political disturbances in partner countries. In Burkina Faso the degree of achievements is substantially higher than in Sierra Leone, where it is practically impossible to reach the expected results. Even with a possible non-cost extension the landscape level outcomes are likely to fall short. The prospects may be better in working with institutions and strengthening their capacities.

The Table 3.1. presents a comparison, by work packages, between key outputs/outcomes defined in the project document and the achievements by today, as reported by the WP Leaders. The table does not include those achievements that are planned for February 2016 onwards, or that are in process with main results still incomplete.

Table 3.1. Planned and achieved results of BIODEV work packages.

Work Package	Planned in the project document	Achieved by February 2016
WP1.1	<p>Local stakeholder platforms, devolved decision making, and local institutions of a landscape nature strengthened.</p> <p>Governance and property rights systems with clear natural resource and carbon ownership described and disseminated to stakeholders’ platforms and government institutions.</p> <p>Knowledge and skills in biocarbon related matters among local policy makers strengthened.</p> <p>Interventions introduced to help producers/collectors and other commodity chain actors improve incomes from sustainable marketing.</p> <p>Village based extension approaches implemented for facilitating</p>	<p>Multi-stakeholder Innovation Platforms established in 4 pilot sites in BF. Potential members for IPs had been identified in pilot sites in SL, but platforms were not established due to Ebola.</p> <p>Study on conflicts around NRM and property rights done and mechanism for conflict management proposed (report available). Nothing has been done in SL as field activities for WP 1.1 did not really take of.</p> <p>About 40 participants from communities and rural councils (3 meetings) were sensitized and informed about governance of NR and decentralization processes in BF (report available). Nothing has been done in SL.</p> <p>Training for market interventions for karité in BF has started.</p> <p>Four RRCs established with WP 1.2. RRCs ExCo members trained in BF on leadership, conflict management and group dynamics. ExCo of RRCs backstopped in the execution of their action plans.</p> <p>Scoping study reports for pilot sites in BF and SL providing guidance to all WPs to design interventions available. MSc thesis on governance and property rights arrangements in Cassou area, BF. PhD research on “Assessing Climate Change mainstreaming into policies and multilevel Governance in Burkina Faso.”</p>

BIODEV Evaluation

Work Package	Planned in the project document	Achieved by February 2016
	entrepreneurship and innovation.	Report on mapping value chain actors for karité and néré in BF. Existing extension/dissemination systems in Cassou area, BF assessed (strengths, weaknesses, perceptions) - MSc thesis available.
WP1.2	<p>Priority agroforestry systems and species and soil management practices identified with local participation.</p> <p>A range of suitable and productive agroforestry systems, species and soil management practices are demonstrated and extended to farmers.</p> <p>Capacity of extension, development organizations, and farmers in agroforestry and soil management strengthened.</p> <p>Sustainable, private oriented, climate change proofed germplasm production and delivery systems developed.</p>	<p>Four rural resource centers (RRCs) including basic infrastructures.</p> <p>More than 400 farmers were trained on various topics such as: Leadership, group dynamics and the concept of rural resources centers; Seed collection, seedling production, grafting of indigenous fruit trees and tree planting; Vegetable crop production in the 4 pilot villages; Fruit and vegetable tree gardens establishment within demonstration plots in the 4 pilot villages.</p> <p>About 250,000 seedlings of 11 tree species were produced by farmers in the RRCs and planted.</p> <p>A PhD student from Mali has been registered in Finland working on developing efficient rapid carbon stock appraisal tools through modeling. Three MSc students registered at the University of Bobo-Dioulasso were hired. Two junior social scientists of INERA were trained to conduct a local knowledge study.</p> <p>Fruit, vegetable and fodder tree species were planted in the demonstration plots of the 4 RRCs to determine their growth and fruit production in 2014.</p> <p>Impact of various management options on fodder production has been examined at Samanko, in Mali.</p> <p>Experiments in Burkina Faso to determine the water use efficiency of 4 key parkland tree species.</p> <p>Agronomic trials with 11 treatments including mineral fertilizers combined or not with manure and legumes.</p>
WP1.3	<p>Decision making in biocarbon-inclusive forest management processes is strengthened by the use of integrative methods, tools and guidelines for diagnostic and evaluative analyses.</p> <p>Development and piloting of management models and strategies that integrate sustainable production and use of high value biocarbon and resilience of forest ecosystems is facilitated.</p> <p>Capacity of forestry practitioners strengthened in design and implementation of management systems and tools oriented towards resilient and high biocarbon ecosystems.</p>	<p>Country profile of Burkina Faso on REDD+ and Adaptation to climate change, analyzing drivers, agents, institutions and processes.</p> <p>Socio-economic and biophysical baseline established for Cassou forest management area. No baseline assessments were conducted in Sierra Leone due to Ebola disease.</p> <p>Scoping study conducted through supervision of MSc student works on local perceptions viz. management of Cassou.</p> <p>Ex-post evaluation of LAMIL project in Guinea.</p> <p>Review of first attempts to adapt co-management model to Sierra Leone.</p> <p>SWOT analysis of the Cassou CAF model.</p> <p>Tree planting campaigns conducted in 2014 and 2015 in degraded areas inside the Cassou forest management area.</p> <p>Co-supervision of 5 MSc students.</p> <p>Training representatives from Cassou CAF, decentralised forest service, local NGO, INERA and students on use of GPS for monitoring forest management.</p> <p>Analysis of Cassou CAF boundaries.</p> <p>Strengthening of institutional capacities with donation of training and research equipment to two universities (Univ. Aube Nouvelle, Dep. of Environment, and Univ. Ouaga 1, Dep. of Sociology) and to INERA/DPF.</p>
WP1.4	<p>More efficient wood energy production and consumption practices promoted.</p> <p>Management plans for sustainable fuel wood energy developed.</p> <p>Local capacity in sustainable wood energy production and consumption strengthened.</p>	<p>Most important field tasks have been accomplished and field data analysis is completed.</p> <p>Interviews connected to VCA have been carried out in the villages.</p> <p>A baseline study on wood energy has been conducted and the energy wood report of Sierra Leone and Burkina Faso has been finalised.</p> <p>Information dissemination and enhancement of university education on wood energy by establishing a learning network together with Njala University (SL) and University of Ougadougou (BF) have been accomplished.</p> <p>The charcoal experiments with the wood samples from Sierra Leone are ready and will be reported.</p> <p>In Burkina Faso a training of improved stoves was organised for a group of women from different villages.</p>
WP1.5	<p>A scientifically rigorous yet cost-effective measurement and monitoring system for carbon, other ecosystem services, and livelihoods is developed and operational in the Programme landscapes.</p> <p>Technical capacity in measurement and monitoring systems is strengthened.</p>	<p>Scientifically rigorous measurement and monitoring systems for landscape carbon stocks have been established in the Programme sites including field measurement guidelines and tools.</p> <p>Training of 30 people in field data collection for using the Land Degradation Surveillance Framework (LDSF) and for landscape carbon and species diversity in in Burkina Faso, Sierra Leone, and Kenya.</p> <p>Training of 14 experts from Burkina Faso and Mali on landscape carbon measurements, data analysis and reporting.</p> <p>Tree density map for targeting tree planting in Cassou.</p>

BIODEV Evaluation

Work Package	Planned in the project document	Achieved by February 2016
	<p>Priority high carbon intervention strategies spatially targeted.</p>	<p>Baseline field data from the Programme sites in Burkina Faso, Sierra Leone and Kenya (Taita Hills).</p> <p>Collection of remote sensing data sets including airborne LiDAR data from Taita Hills.</p> <p>Scientific publications, for example, two articles on remote sensing of biodiversity and submitted manuscripts on land cover mapping and tree height-diameter modeling.</p> <p>Four MSc theses at University of Helsinki.</p>
<p>WP2</p>	<p>Site level implementation and monitoring plans for integrated sustainable development, including biocarbon and small-scale sustainable energy production.</p> <p>Strategy for capacity building for integrated sustainable development, including biocarbon and climate change, developed and implemented.</p> <p>Decision support tools for assessing environmental and well being effects of agroforestry and forestry in different niches developed and used by partners and national and local stakeholders.</p> <p>Best practices in biocarbon methods and approaches compiled and disseminated.</p> <p>Networking and learning across biocarbon stakeholders and initiatives strengthened.</p>	<p>Development of PIN and capacity building on Bio Carbone aspects. The PIN (Project Idea Note) is approved and under registration in Plan Vivo.</p> <p>Capacity building on the elements of a bio carbon project (WP2). Capacity building on Climate change and development (WP2 and WP3). Capacity building on Scientific writing (WP2) for Universities. Supervision of MSc (3) and PhD (1).</p> <p>Three workshops have been organized within WP2 beside the BIODEV wide meetings with partners.</p> <p>Following documents and papers: Regional assessment of the importance of ecosystem services for adaptation in rural areas of West Africa; Regional assessment of the role of agroforestry for biodiversity conservation and ecosystem services; Regional assessment in land degradation I the Sahel and their drivers; Local analysis (participatory) of drivers of land use change in Cassou; Local analysis of fine time scale climate trend and their implication on yield and populations' vulnerability to climate change.</p>
<p>WP3</p>	<p>National stakeholders' platform, where identified strategies and policies for equitable, efficient and effective REDD+ that generate co-benefits which are shared and disseminated to develop systems and policies for REDD+.</p> <p>Institutional and governance conditions that can support fair and efficient NAMA that reflects the landscape activities and local reality, described and provided to government institutions and national stakeholder platforms.</p> <p>Methods and mechanisms to promote synergies between adaptation and mitigation for sustainable biocarbon developed and disseminated to decision makers.</p> <p>A business model for an African hub for information and expertise on biocarbon development is developed.</p> <p>Capacity of biocarbon practitioners and initiatives strengthened.</p> <p>Priority training needs for national policy makers and experts in biocarbon topics met.</p> <p>Training program for university teachers and researchers in biocarbon topics and improved curricula developed.</p>	<p><u>Capacity building:</u></p> <p>A capacity development program that is currently being rolled out – until now 100+ persons trained.</p> <p>Three national level trainings on climate change with participants from Burkina Faso and Mali.</p> <p>UNFCCC delegates from BIODEV countries trained on UNFCCC negotiations.</p> <p>Six experts from BIODEV countries were trained in University of Helsinki Summer School.</p> <p>Three BIODEV funded PhD students from Burkina Faso (Mawa), Mali (Ibrahim) and Sierra Leone (Amara Edward) have been granted admission for long term training in the University of Helsinki.</p> <p>Two VITRI PhD students (Daniel Bau and Yitagesu) and 1 MSc student (Tabi Agbor) trained.</p> <p>More than 15 scientific, technical and policy documents produced or are being finalized.</p> <p><u>Policy outputs:</u></p> <p>Burkina Faso country policy profile on climate change finalized.</p> <p>Mechanisms for enhancing synergies between adaptation and mitigation developed.</p> <p>Architecture for Burkina Faso national climate change committee designed.</p> <p>Mainstreaming of climate change into development plans carried out.</p> <p>Mainstreaming of climate change into sectorial policies carried out.</p> <p>The development of options and business plan for enhancing or creating BIODEV regional hub.</p>

Most of the BIODEV achievements have been produced in Burkina Faso. According to a report by the project management, the results in Sierra Leone are as follows (Table 3.2.):

Table 3.2. Summary of achievements in Sierra Leone, August 2012 – November 2015.

Work Package	Achievements in reporting period	Challenges and observations
WP 1.1	<p>Conducted value chain analysis for <i>Anacardium occidentale</i> (cashew nut), <i>Elaeis guineensis</i> (oil palm), <i>Mangifera indica</i> (Mango) in Sierra Leone.</p> <p>Initiated discussions on the development of innovation platforms in pilot sites.</p> <p>Socio-economist from SLARI made visit to Bamako to work with marketing scientist on data analysis for VC and plan complementary VC study.</p>	<p>A manuscript 'Mango value chains in Sierra Leone: Constraints, Endogenous Coping Strategies and Opportunities' submitted.</p> <p>SLARI staff trained in VC data analysis and complementary study prepared for implementation in 2016.</p>
WP1.2	<p>Scoping studies in 2013 (in collaboration with WP1.1).</p> <p>Constituted spontaneously pilot farmer groups based on interest in BIODEV project.</p> <p>Pilot groups sensitized properly on BIODEV project and their buy-in is already evident on the field.</p> <p>Pilot groups setup 5 nurseries.</p> <p>Pilot farmer groups developed market gardening (with priority diverse vegetables) close to the nursery sites and also rice (the main staple food in Sierra Leone) cultivation.</p>	<p>2,000 seedlings of 7 species produced by farmers. Demonstration of the effect of sowing methods on rice (the main staple crop).</p> <p>Various farmer trainings on nursery techniques and group cohesion were also organized</p> <p>Successes of first actions motivated the farmers and, by mid - 2014, all farmer groups resolved to produce a minimum of 5000 plants per pilot nursery. Thus, at least 25,000 seedlings (as at December 2014) produced for integration within the agricultural landscape around OKNP.</p> <p>The market gardening experience, started in 2013, was further expanded with seeds of diverse vegetables species distributed to farmer groups in December 2014.</p> <p>The above mentioned activities were carried out in each community on demonstration sites of 1 ha allotted by each community for the development of infrastructural components of Rural Resource Centers (RRCs).</p> <p>Pilot farmer groups in each community have constituted themselves into various work committees (fencing, building, water well etc.) and were waiting for the BIODEV and SLARI teams to come and initiate construction activities.</p>
WP1.4 & WP1.5	<p>The field data collection including soil sampling, aboveground biomass measurements and Land Degradation Surveillance Framework (LDSF) was completed in May 2014.</p> <p>Calculations on aboveground biomass and fuel wood fraction were completed by UH and UEF.</p> <p>WP1.4 started the charcoal experiments at UEF's laboratories with the wood samples from SL</p> <p>Interviews of experts of SL to be utilised in a report of the wood energy in SL carried out.</p>	<p>The soil samples have been processed under the remote guidance of WP1.5 and some already shipped to laboratory at ICRAF Nairobi.</p> <p>The charcoal experiments are completed and a report is being produced.</p> <p>The interview data of experts about wood energy in SL has been collected and is now analysed for reporting.</p>
	<p>A PhD student to be supported by WP1.5 and WP1.3 identified.</p>	<p>The application process is taking long.</p>
WP 2	<p>Consultations on how best to conduct studies aimed at reviewing biocarbon projects implemented in Sierra Leone, and to access climate data and land use trends over the last 30 years.</p>	<p>The team facilitated the collection by WP 2 leader some satellite images and climate data from USAID & United States Forest Service / International Programs (USFS/IP) funded Sustainable & Thriving Environments for West African Regional Development (STEWART) project being executed in the same project site in Sierra Leone.</p>
WP 3	<p>A budgeted capacity development program for Sierra Leone was elaborated.</p> <p>A draft policy context report was produced.</p> <p>Short term international trainings were conducted in Helsinki University on sustainable forest management with 2 participants from SL.</p> <p>One PhD student from SL has been admitted in the University of Helsinki.</p>	<p>The EVD did not allow local trainings to be organised but efforts are made to involve people from Sierra Leone and Guinea in international ones.</p> <p>The report could not be completed due to the EVD. Arrangements are being made to finalise the report.</p>

Following observations can be made on the achievements:

- Each work package is progressing towards goals defined in the project document and subsequent plans.
- In general terms, the operations are behind the schedule in both countries, the delay being much more serious in Sierra Leone than in Burkina Faso. The fulfilment of the plans depends to a large extent on what will be carried out in 2016.
- The achievements listed in the Table 3.1. are mostly outputs, rather than outcomes.
- More specifically
 - WP 1.1, together with WP1.2, has built four RRCs. The work on innovation platforms is starting, with several months delay due to political turbulences in Burkina Faso in the latter part of 2015. Some WP1.1 team members think that marketing is a difficult part, it is hard to find appropriate channels outside the local market. On the other hand, WP1.1. deliberately decided to focus on local/national markets first, because experience on value chain development has shown that targeting directly export markets is not necessarily beneficial for dispersed smallholder producers who are not well organised.
 - WP1.2 has trained some 400 landscape level beneficiaries. Perhaps its most important achievement in Burkina Faso has been the planting of seedlings. Irrigation and maintenance of seedlings is critical. Out of 250,000 seedlings about 70% have survived. In the continuation the maintenance of plantations remains with the communities.
 - WP 1.3 thinks it will be difficult to reach everything by August 2016. Collaboration with SLARI is starting only now. Planned MSc student support is hard to implement on time.
 - WP1.4 is confident it can complete the planned activities by August 2016. Work at policy level has been complicated and slow because of change of countries and political instability in many of them.
 - WP1.5 has developed monitoring tools for carbon stocks and completed all the field data collection and laboratory analyses works. Capacity building is in plans. Much of the resources have been utilized in Taita Hills, Kenya. It is not entirely clear how those results will be integrated into biocarbon approaches in the Sahel.
 - WP2 is facing a tight timetable inasmuch as it depends on outcomes of other WPs. Synthesis of BIODEV results is in process and the Plan Vivo biocarbon project in preparation.
 - WP3 believes it can conclude activities in BF by the end of 2016, although several training events have had to be postponed. In Sierra Leone it is behind the schedule, but optimistic.
- Based on the financial information of the Table 2.5. the core activity in capacity building, training, was minimal during the first three years of the Project. When 85% of the project duration had passed, only 4% of the training budget was spent.
- According to the project document, BIODEV will collaborate with the FAO Mitigation of Climate Change in Agriculture (MICCA) project to co-contribute to global exchange of information for drawing lessons on best practices for enhancing mitigation efforts in agriculture. In reality, it seems that the cooperation with MICCA has been nil.
- Some of the activities are wide-spread and may weaken the operational focus of the Project. For example, WP3 and University of Helsinki have supported two students from Cameroon and one from Ethiopia, which are not BIODEV partner countries.⁷ Support to Finnish students in Taita Hills, Kenya, is not justified by BIODEV strategy.⁸

⁷ According to UH/VITRI, the two Cameroonian persons were carrying research activities in cooperation with CIFOR under WP1.3 and not WP3. These persons should not be considered under capacity building activities of WP3.

⁸ According to the Department of Geosciences and Geography, the Finnish students have got grants for assisting in the research activities in the Taita Hills, Kenya (field data collection and lidar data processing). Hence, they have been

- Some activities are based on proven technologies, which are not necessarily implemented in the most cost-efficient way by a project like BIODEV. Fertilizer experimentation, carried out by WP1.2, are a classic subject of agricultural research and validated results should be available from corresponding institutions. Training in technology and use of improved stoves has been in the programme of numerous development organisations for decades. It is not cost-efficient that MFA transfers funds to Nairobi, from where they are sent to Joensuu, Finland, from where the UEF buys services from a Burkinabé ONG to train 21 farmers in Cassou area.
- Planned outputs in the project document include some problematic ones. Yet there is no evidence that these would have been modified to match with the resources of the Project or work packages.
 - For the WP3, there are expected outputs beyond its realistic possibilities. Such are ‘business model for an African hub for information and expertise’, as well as ‘institutional and governance conditions that can support fair and efficient NAMA’.
 - For the WP2, the project document defines outputs that rather belong to the competence of other WPs. ‘Site level implementation and monitoring plans for integrated sustainable development, including biocarbon and small-scale sustainable energy production’ and ‘Strategy for capacity building for integrated sustainable development, including biocarbon and climate change, developed and implemented’.

The core of the project purpose is to develop high-value biocarbon approaches. The products and services the work packages have generated so far are relevant elements for those science-based and validated approaches that should be disseminated and scaled up in Africa. Nevertheless, it is difficult to see how the existing elements could be encapsulated into consistent and applicable packages within the remaining time period, including the related capacity building. If it has taken 3.5 years to produce the current achievements, it is unlikely that all what is planned and needs to be done can be reached within six months.

A particularly problematic issue is the BIODEV situation in Sierra Leone. When the difficulty of working in Sierra Leone became obvious, it could have been expected the Project and its top decision-makers would have made respective strategic adjustments. These decisions remain now to the last year, especially if the possible non-cost extension is approved.

Regarding cooperation and exchange with other development partners, BIODEV has several strengths. ICRAF and its local partners are well established in their relevant contexts in Africa. All partners are professionally competent and respected organisations. They can count on experienced and motivated personnel that has sufficient technical and cultural skills. As one of the Project’s actors formulated, “BIODEV is implemented by Africans for Africans”. On this basis, it is straightforward to look for partners to work and share tasks with.

BIODEV operates in a Region where development cooperation has a strong presence and addresses sectors that are focus of global attention. Potential partners are many. The challenge for BIODEV may be to find the ones that offer real synergy and complementarity. A further important role for BIODEV could be that of a facilitator of relevant processes related to its core competences. In this regard, the work with AEDD in Mali and CONEDD in Burkina Faso are important, as is the support to the creation of the National Committee on Climate Change in Burkina Faso. In Sierra Leone, need and potential for aid effectiveness may be even higher than in Burkina Faso. Producing consistent and applicable biocarbon approaches will clearly strengthen the BIODEV’s and its partners’ credibility in this field.

important supporting staff for the WP 1.5, although they have also prepared their MSc thesis under supervision of WP 1.5 and based on the data collected in the Project.

3.3. Efficiency

BIODEV has utilized human resources in total 519 person months, both professional and support personnel combined (Table 2.6.). Over the 42 month period (August 2012 – January 2016) this means that in average 12 persons have been working for the Project full time. For comparison, the respective figures in two similar MFA funded projects, FoodAfrica and CHIESA⁹, were 14 persons and 27 persons, respectively. In this comparison the utilization of BIODEV human resources is efficient. However, the comparison is simple and omits important variables, such as the number of countries and sites included, and the nature of work packages.

Most of the WP Leaders work for BIODEV only a part of their time. One of them estimated that those employed by ICRAF dedicate about 25% of their time to the Project. On the other hand, some, for example the Co-Leader of WP3, work full time for BIODEV.

BIODEV has not staff of its own at the landscape level. In Burkina Faso, there are two INERA technicians working full time for the Project, paid in part by BIODEV. In addition there are four INERA staff working part-time for BIODEV activities and totally paid by INERA. SLARI has assigned three field staff to BIODEV. They are based in Makeni and travel to the project site in OKNP, which is about 100 km away. Some of the activities have been outsourced, to external service providers, such as Tiilpaaga (improved stoves) and TreeAid (conflict resolution) in Burkina Faso. TreeAid study was completed last year and it would be ready to continue through a respective action plan.

BIODEV budget of 10 million euros consists exclusively of MFA contribution and it is sizeable for both MFA and ICRAF. It is difficult to make an objective estimation whether the costs of the Project can be justified by the achievements, because key outcomes have not yet materialized and because reliable indicators for such an assessment have not been operationalized.

When comparing the number of reached beneficiaries (Table 2.1.) with the total spent amount (Table 2.5.), the conclusion is that the used resources have been very big in relation to the quantity of the involved beneficiaries. Precise data on beneficiaries is missing but based on information provided by the work packages, they amount to less than one thousand, and most of them in a quite limited area of four villages in Burkina Faso. The other variable of the equation is 7.9 million euros spent by the end of 2015, of which only a small share has been allocated directly to the beneficiaries.

It is true that several unforeseen obstacles have prevented BIODEV from reaching more beneficiaries. But this has not been reflected in the pace of spending. It is true that outcomes and benefits will increase significantly if all operations planned for 2016 will be carried out. But the slow progress so far puts the realism of these plans in test. It is also true that research projects cannot yield direct tangible benefits, at least on short term. But BIODEV claims to be a research and development project, to which “the achievement of tangible development outcomes and impacts in landscapes is of paramount importance”. Planned outputs of each work package are divided into research (code R) and development (code D) ones.

Low efficiency, in terms of high expenditure in relation to the produced results, is one of the key weaknesses of BIODEV. This is partly due to factors outside of the Project’s control, such as EVD and politically related instability and violence in partner countries. In part it stems from issues that BIODEV and ICRAF should have able to control, such as closing of Sierra Leone office and top-heavy project structure and governance (see section 3.5.). A detailed analysis of all efficiency issues is beyond the possibilities of a nonrecurring evaluation. This assessment and respective actions should have a priority in BIODEV’s agenda in the coming months.

⁹ Improving Food Security in West and East Africa through Capacity Building and Information Dissemination (FoodAfrica), and Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa - Increasing Knowledge, Building Capacity and Developing Adaptation Strategies (CHIESA).

Spending rates show significant differences between separate budget lines, as of December 31, 2015 (Table 2.5.). There is substantial over-spending in ‘Consultants’ (197%), although eight months of the Project and intensive activities remain yet to be carried out. High spending rates were also in ‘Field travel / operations’ (107%), ‘General expenses’ (128%), and MICCA co-financing (100%). In contrast, very little was spent in ‘Training’ (3.7%), and also ‘International travel’ (33%) and ‘Supplies’ (41%) figured low. In average, 79% of the budgeted funds were spent by the end of 2015, when 85% of the project period had elapsed.

Some budget modifications have been decided after the project document was approved. The Biocarbon project has required a shift of 140,000 € from other work packages to the WP2. This modification was decided by the Steering Group that consists of project implementers. Such procedure is unusual in the governance of MFA supported projects.

BIODEV does not have separate budget line for communication and dissemination. The project document does not foresee a dissemination strategy and it seems that the communication of results was largely trusted to each WP. Currently an ICRAF communications specialist is dedicating a part of her time to BIODEV. As a result, there is an explicit dissemination plan in the making. It includes an end-of-the-project conference in November 2016. Work packages have intensified their communication efforts, for example they invite local media to the meetings and other events. The members of the Advisory Board contribute to the dissemination and relevant ministries are kept up to date. BIODEV scientists write articles to the ICRAF newsletter and there is a www-based ICRAF Dataverse where all datasets and documents can be accessed.

MFA representatives have felt it has not always been easy to be informed about BIODEV performance.

At the landscape level, much of the dissemination and training takes place directly with the beneficiary communities. Conceiving BIODEV as a development project, not only research, has helped in this. Several training events at national and regional level, a specific focus of WP3, have also been an efficient way of communication. As a result, BIODEV does not have as serious dissemination & communication gap that FoodAfrica and CHIESA had at the time of their mid-term reviews.

The personnel in the work packages and BIODEV management is sufficient to address problems that emerge in implementation. The organisational set-up, however, complicates adequate and timely responses. This is discussed more in detail in the section 3.5. on project design and management. Five out of the seven work package leaders are located outside the partner countries and only one of them is in a landscape country, WP1.3 Leader in Burkina Faso. In Sierra Leone there is no country coordinator and the one for Burkina Faso is based in Mali. National stakeholders wished that he would be located in Ouagadougou. Management responsibilities are divided between the project coordinator in Nairobi and project manager in Bamako. The composition of BIODEV governance bodies is not conducive to swift and flexible reactions in strategic implementation issues.

Examples of adequately addressed problem issues include the delineation of CAF borders, and land tenure in general. Confusion about property limits led some parts of the local population to resist reforestation activities. Now these conflicts seem to be solved. Other issues that need urgent yet sustainable responses include water supply to tree seedlings and market gardens, funding of the students after the Project’s termination, and contingency plan due to possible re-emergence of EVD.

3.4. Impact and sustainability

In assessing the impact, the starting point is the overall objective and project purpose defined in the project document. They are cited in the section 2.2. of this report. The overall objective underlines the achievement of sustainable rural development with long-term livelihood and environmental benefits. While the definition of the overall objective does not delineate the target groups in exact terms, it can be assumed to be wide:

there is a reference to rural populations and the global community. The project purpose is anchored into three key constituents: biocarbon approaches, dissemination of results, and capacity building. Regarding the target groups, the first element refers to West Africa and the two last ones to Africa.

By the time of the evaluation in February 2016, most BIODEV achievements can be characterized as outputs rather than outcomes. Consequently there is a gap between what has been produced and the expected impact. Project actors seem to be aware of this and underline the importance of activities in 2016 in closing the gap towards strategic results and impact. The assessment of the result gap is complicated because the Project has not systematically monitored the performance at the outcome level. As explained in the section 2.2., BIODEV has planned to monitor two levels: activities/outputs by work package leaders, and outcomes/impacts through external evaluations (mid-term, end of project, and post project). An internal evaluation exercise, carried out by the BIODEV M&E team, is foreseen in September 2016.

According to some actors, the impact will come after the Project. This, they say, is because forestry has long cycles. While impact and long-term effects often mature after a project's active phase, the project purpose is meant to be achieved within its life time.

At the landscape level the BIODEV works on a small-scale, currently in four Burkina Faso villages. This is not proportionate with the ambitious overall objective and project purpose. It contrasts with the project document formulation that states "The key beneficiaries of BIODEV are rural villages and households in Africa...". The Project would need substantial replication and up-scaling of landscape activities to achieve big objectives. At the moment there are no concrete plans for such moves.

When looking at 'Biocarbon approaches', there is an inherent challenge in the project design. It is based on sequencing between WP1 and WP2. If the WP1 is late in its operations, as it currently seems to be, the concept leaves little time to WP2 to complete its job. It has been difficult to make the activities to progress in synchrony. It is possible that the BIODEV strategy, schematically described in the Graph 2.1., has turned out to be too complicated to succeed in the challenging operational environment.

A further challenge in assessing the impact lies in the definition of the term 'biocarbon approaches'. What exactly does it signify? Will it be a general scientific framework or readily applicable set of recipes, accompanied by training modules, tools, and other support services? Or something else? The project document includes a definition for 'high-value biocarbon development' (cited in the footnote 2 of this report), but it is not sufficient to explain what is meant by biocarbon approaches in the project purpose. BIODEV team had discussions on this topic during the Steering Group meeting in January 2016 and it decided to develop three working papers, one specifically looking at integrated biocarbon approaches.

Regarding the dissemination of results, BIODEV does not have a concrete plan with a time table, budget, as well as defined roles and responsibilities. There is no clarity of who consist the key audience of BIODEV dissemination. BIODEV can now count with part-time support of an ICRAF communication specialist. While her contribution is expected to strengthen the communication, this part of the Project needs more emphasis also from the management and work package leaders. In several occasions BIODEV refers to multiplying skills and knowledge from target farmers to others. Experiences from other countries and projects indicate that this process does not happen automatically and without support. WPs are preparing reference documents that include WP experiences plus relevant literature review. These are planned to be complete by June 2016.

Effective farmer extension and advisory services call for concerted efforts from various actors. In Cassou area, the government agricultural extension agents have been involved, although their capability to perform is limited by cuts in public funding. Local NGOs have also participated. In Sierra Leone, there was a plan to involve the Biodiversity Society, but this did not materialize at the landscape level.

Strengthening of local capacities is one of the key axes of the Project. Capacity needs assessment has been carried out for all four countries in a joint workshop. The consequent capacity building plan includes short-term and long-term training. Various short courses, participation in the summer school at the University of

Helsinki / VITRI, as well as support to MSc and PhD students have been the key activities. The local partners appreciate the training and wish it continues. Yet some BIODEV actors think more should have been invested in promoting local partners' ownership.

An open question is the funding of the students after BIODEV ends. As indicated in the Table 2.2., some studies will last as long as until 2019.

The collaboration with local institutions seems to be straightforward and fluent. WP1.4 trains in local universities and WP1.3 works with Burkinabé universities, in Sierra Leone the same work will be through SLARI. Some WPs felt that local institutions (INERA, SLARI) had very high expectations in comparison to what BIODEV had planned and intended to do with the partners.

WP3 has been instrumental in the creation of the National Committee on Climate Change in Burkina Faso. The Committee has been approved but not started its work yet. Its continuation maybe difficult without BIODEV support. In Sierra Leone there is no equivalent organ. Unlike CONEDD, the NCCC will include not only public institutions but stakeholders also from the civil society and the private sector. Policy briefs by WP3 are under consideration. Training at regional level has focused on climate change negotiations.

BIODEV does not have a specific exit strategy and gradual handing-over plan in place, although there is awareness of elements needed for one. While there is cooperation with local institutions, there is no guarantee that these will continue the operations once the BIODEV funding is over. On the contrary, all interviewed partners and stakeholders seem to rely either on BIODEV continuation or some other donor taking up.

Work package Leaders and BIODEV management have proposals for sustainability, although they are not consolidated into a concrete plan. The suggested ideas include

- Helping communities to set up carbon projects for REDD+ funding.
- Encouraging partner institutions to work more closely with the communities.
- Preparing a BIODEV II, with funding from the MFA or another donor.
- Completing and implementing the Biocarbon project, currently under preparation by the WP2.¹⁰
- Strengthening the beneficiary groups formed around the Rural Resource Centres. Currently the four RRC groups in Burkina Faso have a combined capital of 8000 USD on a bank account.

BIODEV plans to submit a non-cost extension proposal to the MFA, which would extend the project period until the end of 2016. Work packages are working on the proposal and will finalize it once the results of the evaluation are available. As the BIODEV accounts as of 31.12. 2015 have not yet been consolidated, it is not known what would be the available amount of funds for the possible non-cost extension.

Possible foci for the non-cost extension include¹¹

- Seedlings in Burkina Faso and ensuring their follow-up.
- Replicating activities in other landscape sites.
- Land management and soil carbon in Burkina Faso.
- Landscape activities and forest management in Sierra Leone.

¹⁰ The Biocarbon project has been under preparation for some time already and been presented as the key exit strategy for BIODEV. In the CC meeting in April 2015, the MFA did not find the proposal as a satisfactory exit strategy.

¹¹ The list consists of ideas and suggestions presented by various BIODEV actors. It includes incoherencies and should not be considered as a ready-made proposal.

- Capacity building and training in Burkina Faso
- Capacity building in Sierra Leone.
- The work of WP2.
- The work of WP3.
- Major focus in Sierra Leone and only minimal necessary ones in Burkina Faso. There would still be the same risks in Sierra Leone and SLARI should be encouraged to take the lead, with the support of a country coordinator.
- Consolidation of the achieved results.
- Engaging other donors.
- End-of-the-programme assessment study.

3.5. Project design and management

To some extent BIODEV can be considered an assembly of seven work packages rather than one coherent programme. The WPs have a high degree of autonomy in their operations. An annual planning workshop, semi-annual Steering Group meetings, and project management (divided between coordinator and manager located in separate countries) have not been able to ensure that all operations progress in a timely and coordinated manner. The envisaged BIODEV strategy, depicted in the Graph 2.1., is quite demanding in this regard.

Some WPs work together more than others. For example, WP1.1 and WP1.2 have a close collaboration. WP1.3 reports to collaborate a lot with WP1.1 and WP3. On the other hand, some commented that the WP1.5 seems slightly isolated from the rest. The work in Taita Hills, Kenya, has not brought many inputs to other WPs. The work of the WP2 depends largely on results from the others. MICCA project has been funded by BIODEV for 225,000 euros. However, until now there has not been connection between MICCA and the WPs. Stakeholders may sometimes be confused as a result of separate WPs. They do not necessarily understand the differences between the work packages but think BIODEV as a whole.

There is a general satisfaction among the BIODEV partners about the collaboration with ICRAF. Some felt that in the beginning of the Project it was not always optimal but has improved and is now satisfactory. For example, making contract between ICRAF and CIFOR took a long time. The contract between ICRAF and INERA is renewed annually and every time the process lasts for months. Strengths of BIODEV include mutual trust among actors and Africans working for Africans. It is managed by well-established and credible organisations.

The project document names a high number of stakeholders and partners. Among national ministries alone, 11 of them have been identified as a key target beneficiary group in the four countries. In reality, functional working relationships have been created with far fewer institutions. Horizontal collaboration between them is not active. For example, INERA says it has no direct contacts with SLARI, except that both participate in same BIODEV training events and both are members of the BIODEV Advisory Board.

Many actors find the management structure of BIODEV too complex and top heavy. There are many governing bodies and several reporting lines, and some WP teams have found them sometimes unclear and changing over time. This contrasts with the scope of the landscape level, which is small and limited. For the coordination in Nairobi, it may be difficult to follow the field level issues. Linking with Sierra Leone is difficult. Internet connections are often weak. It takes a whole day travel from Bamako to Freetown and another day from the capital to OKNP. Travel from Mali to Guinea is also long and expensive.

The governing bodies of BIODEV include the Consortium Council (CC), Advisory Board (AB), and Steering Group (SG). The project document includes a one-paragraph description of each' composition and tasks, but no complete terms of reference. The consortium agreement of May 2014 has defined the functions of the governing bodies more in detail. As the MFA is not among the signatories, it is not clear to what extent the stipulations in the agreement correspond with the donor's requirements. The consortium agreement defines a Programme Administration Team (PAT), not mentioned in the project document, composed of the Project Coordinator, Head of ICRAF-WCA Regional Office, Head of Sahel Node Office, the Project Manager, and the country coordinators. There are no records of possible PAT meetings. The consortium agreement stipulates also the mandate of Work Package Management Teams, focusing on the basic rules of game between various institutions collaborating in one work package.

Consortium Council has met so far twice. The meeting in March 2014 took place before the approval of the final project document and it focused on plans and budget. The second CC meeting was held in April 2015. According to its minutes, it included a lively discussion that reflected concerns about BIODEV's achievements and arrangements. MFA played a key role in the meeting, either through questions to BIODEV management or via responses to partners about funding and the Project's possible extension. Minutes of the CC meetings have not been systematically circulated among the BIODEV team. ICRAF considers it belongs to each institutional representative to inform participants from his institution.

As the CC is the only governing body in which the MFA has a formally assigned participation, it plays there the role that it would exercise in the Steering Committees or Supervisory Boards of a typical bilateral project. To fulfill this role effectively, two meetings over a three-and-a-half year period are by far too infrequent. The governance arrangements of BIODEV should have been designed so that more precise involvement of the donor would have been possible. On the other hand, the consortium partners (ICRAF, CIFOR, UH, UEF) do not have a need for systematic meetings the way MFA does.

Advisory Board has met twice, both times jointly with the SG: in Sierra Leone in June-July 2014, and in Burkina Faso in June 2015. MFA representatives participated in the 2015 meeting. The Advisory Board takes no decisions for BIODEV but focuses in giving guidance in scientific and technical issues. The AB is composed of beneficiaries and key partners of the Project in the four countries. No farmer representation is included, which could have been arranged through national or regional farmer organizations. As the two meetings have been joint ones with the SG, their minutes do not reveal what exactly has been the added value of the Advisory Board on top of the CC and SG. Most likely it has served as an instrument for mutual information and exchange. Its contribution to the strategic management of operations is not clear.

Steering Group is composed of the work package leaders and BIODEV management. It has met in average twice a year, either in physical meetings or through video arrangements. The participants consider the SG is very important and plays a key role in inter-WP coordination and thus strengthens BIODEV's coherence. Considering the infrequent CC meetings and the non-decision nature of the AB, SG has been the main decision-making governance body of BIODEV. This underlines the self-steering administration of the Project. It has practically no effective supervision other than the implementers themselves. For the same reason, the work packages operate with a significant autonomy.

Steering Group is the main mechanism to bring WPs to interact and exchange. Its role is appreciated by everyone in the BIODEV team. However, the intentions agreed in SG are not always enforced and materialized. In some occasions there have been diverging opinions between WPs. For example, WP1.3 did not want tree planting to begin before the delineation of CAF borders. It was started anyway, which resulted in some of the planting being contested by local populations. On the other hand, delaying the planting would have meant loosing one entire rainy season.

Project Coordinator and Project Manager are responsible for overall direction and day-to-day management, respectively. The project document includes no terms of reference for these posts, but the consortium agreement includes brief job descriptions for the PC and PM, as well as for the country coordinators. The division of tasks and duties between them has not always been clear. For example, the Project Coordinator first focused on scientific oversight but currently he is an active part of the management. His location in

Nairobi may cause difficulties in following field level operations with accuracy. Initially the financial management was assigned to Bamako office. According to ICRAF, this did not correspond with MFA requirements and the budget responsibility was transferred to Nairobi.

Other reporting lines in BIODEV include potential challenges, too. The Leader of WP1.2 reports to the Project Manager in BIODEV set-up whereas in ICRAF line organization he is the Coordinator of ICRAF Sahel Node and thus the supervisor of the Project Manager. Most of the practical WP1.2 work is done by the Co-Leader. The WP3 Leader from UH/VITRI is currently working at CIFOR (partner for WP1.3) Headquarters in Indonesia. The Co-Leader is in charge of WP3 operations.

The financial management is taken care of by ICRAF and corresponds with internationally accepted professional standards. BIODEV is subject to regular ICRAF audits and, if need arises, also to external ones. An external audit was carried out at the ICRAF Sierra Leone office because of the financial mismanagement, which then led to the closure of the office. This incident did not cause any loss in the BIODEV funds.

The overhead charged by ICRAF is 17.3%, which includes a 2.3% part paid to the CGIAR Consortium. It is a reasonable overhead rate and the same as in the FoodAfrica project, in which ICRAF is also one of the partners. In the initial project proposal the overhead rate was 18%, which the appraisal considered to be too high. As a result, it was lowered to 17.3%.

The overall cost-efficiency was already dealt with in the section on efficiency. The evaluation has no possibilities to make an exhaustive and detailed analysis of the numerous expenditure items and their cost structure. One way to assess this is through comparison with similar projects. The overall conclusion is that 10 million euros should produce more tangible benefits than what has been achieved, or are likely to be achieved, in BIODEV. In a nutshell, the work in a limited geographical area with a modest number of beneficiaries, with addition of capacity building training, should cost substantially less than ten million. Or, in reverse terms, much more should have been achieved with that amount of money. It is difficult to say what exactly have been the causes here, but high transaction costs, *sensu largo*, are most likely among them. Researchers may argue that such fixed costs are unavoidable in scientific work. Nevertheless, the mandate of the MFA is to finance research only to the extent it produces tangible development effects.

Monitoring and evaluation arrangements of BIODEV do not adequately support timely and accurate decision-making. According to the M&E plan, internal monitoring at activity/output level is trusted to the work package teams, and the rest to external evaluations. The M&E team is basically responsible for the project impact assessment and providing tools to assist WPs to do their day-to-day monitoring. There is no overall baseline information to do comparisons with and, in its absence, the M&E team proposed that separate villages would have been compared on with-without basis. Currently a lighter survey method is being planned. Partly it can rely on household survey data, collected by the CRP on Forest, Trees, and Agroforestry.

Persons working in BIODEV management characterized it as the most obstacle-facing project they have ever worked with. Yet the risk analysis and mitigation measures in the project document do not describe the Project exceptionally risky. The anticipated risks include incidents that are routinely added to many project documents, such as non-collaborative partners and adverse exchange rates. Major setbacks could not be foreseen, including EVD, two coups d'état, terrorist attacks, and closure of Sierra Leone office.

The Project and its management has done what it could with the mentioned problems. This has implied changing operations from Guinea to Sierra Leone and from Mali to Burkina Faso, downsizing operations in Sierra Leone, working through SLARI in Sierra Leone, and postponing activities. Looking back, they have been rational and justified decisions. On the other hand, they have not managed to save the Project from major harms and falling short of expected results. For example, the intended mitigation measure to instability or insecurity in project sites was defined as “working in several countries and sites and with other biocarbon projects”. This has turned out to be an overly optimistic insurance policy.

3. 6. MFA funded cooperation on research and development

MFA is supporting three research-oriented regional projects in Africa – BIODEV, FoodAfrica, and CHIESA – that have similar characteristics. All three

- focus on management of natural resources and agricultural development,
- operate in several Sub-Saharan African countries¹²,
- involve several international research centres as main partners,
- involve Finnish research institutions,
- make use of work packages as a key operational concept,
- started in 2011-2012, after long preparatory phases led by the organizations that were planned to become main implementers,
- count with MFA financial contributions in the range of five to ten million euros over a period of four years (BIODEV 10 m€ FoodAfrica 9.5 m€ and CHIESA 4.9 m€).

The mid-term review of FoodAfrica and CHIESA took place in a joint exercise in October-November 2014. Thus making comparisons and looking for possible common conclusions is appropriate:

- All three projects made quite ambitious plans in their project documents. CHIESA probably has had the best match between what was promised and what has been delivered.
- Dissemination of research results and thus translating them into tangible benefits at the grassroots level has been a challenge to all projects. This is perhaps less acute a problem in BIODEV where there has been an explicit development orientation in addition to research from the outset.
- All projects have landscape, or grassroots level, components. In all projects they focus in limited geographical areas, working with a small number of people.
- All projects face tension in the interface between the programme level and work packages. Mainly it is created by centrifugal forces, with one coordination unit and several independent WPs at large. It is not necessarily a negative thing and may, when dealt with in a balanced way, result in fruitful interaction. On the other hand, there are indications that an umbrella coordination level, combined with several governance bodies, may result in a heavy structure that adds little real value but increases transaction costs.
- All projects have experienced a silo effect due to separate and autonomous work packages. This is less evident in CHIESA than the others.
- Capacity building of local partner institutions is a key goal in all projects. In relative terms, BIODEV has paid more attention to it than the others.
- BIODEV and CHIESA coordination units are located in Africa, whereas the one of FoodAfrica is in Finland. African location is clearly more effective.
- When working with a regional (supranational) focus, the partner countries should be selected so that they make up a group that has established patterns and logistical conditions to work together. Thus CHIESA probably succeeded best in amalgamating peer institutions into common exercises. In case of BIODEV, a country of humid tropics such as Côte d'Ivoire would have been a more manageable partner in the company of other French-speaking and neighbouring countries.

¹² BIODEV: Burkina Faso, Guinea, Mali, Sierra Leone; FoodAfrica: Benin, Cameroon, Ghana, Kenya, Senegal, Uganda; CHIESA: Ethiopia, Kenya, Tanzania.

The terms of reference of this evaluation include a question on the feasibility of the approach and set-up used in the MFA funded pilot programmes combining research and development. In addition, there is a question concerning the most effective way for the MFA to support agriculture and natural resources related research and development in the future.

While strengthened knowledge and research-based technological development continue to be fundamental in tackling global and local environmental and agricultural challenges, the assessment of the three projects does not favor the continuation along their approaches and strategies. With the exception of high relevance, the projects fall short of expectations in all other main evaluation parameters: effectiveness, efficiency, impact, and sustainability; with CHIESA performing somewhat better than the two others. Management arrangements are complicated, in particular in BIODEV and FoodAfrica, and not conducive to swift and coherent actions.

It is not possible to give a comprehensive guiding on what kind of agricultural and environmental research it should support and in which way. All development cooperation interventions are highly context-dependent, and appropriate approaches change over time and space. The FoodAfrica mid-term review and BIODEV evaluation do provide, however, elements for principles that should be applied in future projects of same nature.

- When supporting research and development in agriculture and natural resources in Africa, the MFA should
 - Either plan projects in which international research institutions would participate as support partners or service providers. The role of MFA in the preparatory process should be more active than in the three evaluated projects. This would ensure coherence between MFA objectives and policies, and the operations. The role of national and African organisations should be made more prominent. Planning process supported by experts independent from the implementers would make the planning phase swifter and help the research institutions to find roles in which they can best add value.
 - Or focus on core funding of CGIAR and equivalent centres, or assessing and selecting CRPs that best correspond with MFA expectations.
- More emphasis should be placed in supporting national agricultural and natural resources research systems. Regional/supranational arrangements have turned out to be difficult to manage, unless they include not more than two or three countries that already have strong collaboration patterns and experience. Local capacity building and sustainability can have a clearer focus in national projects than in regional ones.
- Self-steering management arrangements should be avoided. The financier should have a systematic and active role in the supervision of a project. The decision-making bodies of a project should always include representation of final beneficiaries, for example through national or regional farmer organisations.
- Long-term vision and sequencing of the project focus should be made concrete and explicit from the outset. While the MFA cannot commit funds for more than four years, the strategic concept should cover a longer period of time. Thus the focus could first be in research, then, for example, in capacity building, followed by dissemination and communication. Horizontal up-scaling of operations should also be explicitly planned.

4. Recommendations

The recommendations in the following table are based on the findings and conclusions presented in the section 3, mainly, and for the sake of simplicity their justifications are not repeated here. Each recommendation is annotated by identifying the actor whom the evaluator considers appropriate to take main responsibility of carrying out the recommendation or, in many cases, coordinating its implementation with others. A suggestion for the timing is given in the last column, based on the evaluator's knowledge about the forthcoming milestones of the Project.

In identifying recommendations, the evaluator focused on issues it considers realistically feasible within the existing resources and time. Consequently, some important aspects were left out because they would have been relevant when designing the Project, but not when 87% of its duration have already passed.

Table 4.1. Recommendations to BIODEV.

Recommendation	Responsible for the implementation	Timing of the implementation
A joint meeting of the Consortium Council and Steering Group should be held to assess a) the situation on the basis of the evaluation results, b) the proposal of the BIODEV management on how to the evaluation results will be taken into account.	Project management	By end of April 2016
BIODEV should prepare a concrete and budgeted plan for the non-cost extension of the Project until 31.12. 2016. The proposal should include an action plan and indicate <ul style="list-style-type: none"> • What will be the division of foci and respective resource allocations between strategic options, such as Burkina Faso vs. Sierra Leone, landscape activities vs. consolidation of research results, generating research vs. disseminating available results, and service delivery vs. capacity strengthening. • How the dissemination and communication of the key experiences and achieved results will be implemented. • What will be the achieved results (not activities or outputs) by the end the Project. In particular, a recapitulation of the research results should be presented in a comprehensive way. • Which parts of the objectives defined in the project document will be difficult to achieve. • The definition and meaning of 'biocarbon approaches' should be concretized so that it explains the result-based significance of the BIODEV project purpose. • Research results and related tools that are and will be produced by BIODEV, available at the end of the Project. • Sustainability plan of the Project, including institutional responsibilities for follow-up activities, as well as time-bound exit and handing-over schedule. • The proposal must include a plan how the funding of the PhD and MSc students will be secured after the termination of the Project. • The proposal should include indications of how the results of the supported MICCA project could be utilized in BIODEV. • How human rights based approach could be operationalized during the remaining period of the Project. • Explicit and concrete exit plan. 	Project management and Steering Group	At latest two weeks before the CC&SG meeting
If the proposal fulfills the above mentioned criteria and if there are sufficient remaining funds, MFA should approve a non-cost extension until the end of 2016.	MFA	In two weeks after the CC&SG meeting
If the proposal for non-cost extension includes a stronger emphasis on landscape activities in Sierra Leone, ICRAF should consider placing the current country coordinator for Burkina Faso in Sierra Leone for the remaining time of the Project, that is, for six to nine months. This would be a rapid and efficient way to increase BIODEV coherence and make sure that landscape activities in Sierra Leone take advantage of the Burkinabé experience.	Project management and Steering Group	By end of April 2016
Work packages 1.2 and 3 should name their Co-Leaders as the Leaders.	Steering Group	By end of March 2016
BIODEV should look for concrete ways how horizontal collaboration between its African beneficiary institutions can be strengthened and continued after the Project's termination. A particular attention should be given to collaboration between INERA and SLARI.	Project management and Steering Group	As a part of the sustainability plan
Internal evaluation exercise foreseen in September 2016 should focus on results instead of activities and outputs. It should assess possible multiplying and lasting effects by the Project, such as training of additional farmers by the direct	Project management and Steering Group	August-September 2016

Recommendation	Responsible for the implementation	Timing of the implementation
beneficiaries. It should also focus on possible changes in institutional capacities brought about by BIODEV operations. MFA should comment the ToR of the assessment when it is being planned.		
Currently the BIODEV M&E activities do not focus in strengthening the respective capacities of relevant national institutions. BIODEV should implement a consultancy to reinforce the M&E systems and mechanisms of INERA and SLARI in their efforts to promote biocarbon approaches.	Project management and Steering Group	By June 2016
Plans to address critical issues of high risk potential, such as water supply to seedlings and market gardens at RRCs, should be concretized.	Project management and Steering Group	As a part of the sustainability plan
Review unrealistic or incoherent expected achievements, such as the ones of the WP2 and WP3, mentioned in the last bullet point of the section 3.2.	Project management and Steering Group, to be decided by CC	By end of April 2016

Recommendations to MFA are not presented in a table format because they are not clearly time-bound and because the evaluator has no knowledge of their precise address within the MFA. On the basis of the BIODEV experience, the MFA should

- Require that project documents always fulfill MFA standards. The terminology must be coherent and unambiguous, terms of reference for key posts and governing bodies must be included. Support information, such as relevant maps, are desirable.
- Representation of landscape level beneficiaries' interests should be ensured in the project governance. If this is not feasible directly through the beneficiary groups, it could be arranged by their legitimate and representative organizations, such as farmer associations.
- Project management and monitoring arrangements must include an appropriate role for the MFA, which enable its participation in timely decision making as well as receiving information.
- Particular attention must be paid to the risk analysis in a project document. They must be realistic and systematic assessments, instead of checklists routinely filled out. This may imply methodological development work from MFA's part.
- Project documents need to include an explicit and documented analysis of needs and problems to be addressed, together with a description of how the analysis process has been carried out. There must be an evident and logical relationship between the analysis and the project design.
- No project preparation must take 4-5 years.

10.11.2015

TERMS OF REFERENCE FOR AN EVALUATION OF A REGIONAL RESEARCH AND DEVELOPMENT PROJECT:

BUILDING BIOCARBON AND RURAL DEVELOPMENT IN WEST AFRICA (BIODEV)

The Ministry for Foreign Affairs of Finland (MFA) is providing funding to a regional project “Building Biocarbon and Rural Development in West Africa” (BIODEV) 2012-2016. The aim of BIODEV is to demonstrate the multiple developmental and environmental gains that result from a high value biocarbon approach to climate change and variability in West Africa. BIODEV will also build up local institutions and capacity. The evaluation shall provide an independent assessment of the performance and progress of the BIODEV project to-date. Based on the analysis, it shall make operational and strategic recommendations for the remaining project period, in order to facilitate a smooth closing down process and sustaining the key achievements of the project when the MFA funding will come to end. The evaluation shall take into account the findings of a joint mid-term review of two similar research and development programmes (FoodAfrica and CHIESA). For the MFA, the main reason for the evaluation is the feasibility and lessons learnt of this type of new and innovative pilot programmes.

1. Background

1.1. Context of the evaluation

New research and development programmes

During the previous Government, regional cooperation funded by the Ministry for Foreign Affairs of Finland (MFA) was substantially increased in Eastern and Western Africa. Three innovative pilot programmes with a similar approach and set-up were initiated in the fields of food security and climate change mitigation and adaptation. The common features of all programmes include: development through research and capacity building, implementation through several components/work packages, and a large network of partners ranging from international and national research institutes to higher education institutions.

The programmes are:

- **Building Biocarbon and Rural Development in West Africa (BIODEV)**
- **Improving Food Security in West and East Africa through Capacity Building and Information Dissemination (FoodAfrica), and**
- **Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa - Increasing Knowledge, Building Capacity and Developing Adaptation Strategies (CHIESA)**

Basic information of the programmes is presented in Table 1.

Programme	Duration	MFA total budget (EUR)	Main partners*	Countries
BIODEV	2013-2016 (+inception phase August 2012- March 2013)	10 000 000	World Agroforestry Centre (ICRAF - Coordinator), Centre for International Forest Research (CIFOR), University of Helsinki (UH), University of Eastern Finland (UEF)	Burkina Faso and Sierra Leone for field research activities; capacity development extended to Guinea and Mali
FoodAfrica	2012-2015 (+inception phase July 2011- March 2012)	9 500 000	MTT Agrifood Research Finland (Coordinator), International Livestock Research Institute (ILRI), World Agroforestry Centre (ICRAF), International Food Policy Research Institute (IFPRI), Bioversity International, University of Helsinki and HAMK University of Applied Sciences	Kenya, Uganda, Benin, Cameroon, Ghana and Senegal**
CHIESA	2011-2015 (including 6 month inception phase)	4 900 000	International Centre of Insect Physiology and Ecology (ICIPE - Coordinator), University of Helsinki, University of York, Sokoine University of Agriculture, University of Dar es Salaam	Kenya, Tanzania, Ethiopia

Table 1. Basic information of BIODEV, FoodAfrica and CHIESA programmes.

* BIODEV also involves a network of local partners and stakeholders, such as government ministries and agencies, national development, policy and research organizations, universities and NGOs in the four project countries. FoodAfrica involves local universities, national research centres, non-governmental organizations, and other local actors in Partner Countries to facilitate capacity building and dissemination of the scientific results obtained. CHIESA involves 25 stakeholder organizations who participate in research, data collection, analysis and sharing, training, dissemination and awareness-raising.

**In the beginning, FoodAfrica also covered Mali, but following the coup d'état of March 2012, it was decided in July 2012 to relocate the on-the-ground activities to Senegal. This decision included the option that relevant results could also be disseminated to Mali in due course.

Results of the first performance assessment

Two of these programmes, FoodAfrica and CHIESA, were assessed by a joint mid-term review in 2014. The initial idea was that also BIODEV could have been included into the same assessment. However, the later launch of the project and the status of project implementation did not make this feasible. The purpose of the mid-term review was to assess the performance to-date of both programmes, and undertake a comparative analysis to identify key successes and challenges, as well as the first lessons learnt of this type of new pilot programmes funded by the MFA. Its key findings that can be applied also to other similar programmes, such as BIODEV, are:

- *For research success:* the need for partnerships, where each partner is committed, experienced, able to add value and capable to operate in the research location(s). In addition, tight team structure and frequent, periodic communication within research teams and ambitious, yet realistic research topics are needed.
- *For success in capacity building:* Close and mutually respectful working relationships with the local partners, who are fully-fledged, equally financed members of the research team.
- *For success in dissemination:* It is important to have a clear definition of the role of dissemination already at the onset of the programme. In research oriented work, programme leadership is essential in assisting to establish a common view on why, how, and to what extent the programme will be involved in dissemination.

The Joint Mid-term review report of FoodAfrica and CHIESA is attached as Annex 1.

1.2. Description of BIODEV

The BIODEV project started in August 2012 and will run until July 2016 or possibly longer. Due to delays, the need for a possible non-cost extension will be assessed. Building biological or natural carbon through improved agroforestry and forestry management and tree planting is what is called biocarbon development in this project. When forestry, agroforestry, and trees are used to derive a broad range of development and environmental outcomes (i.e. not just for carbon), this is referred to as high-value biocarbon development.

The aim of BIODEV is thus to demonstrate the multiple developmental and environmental gains that result from a high value biocarbon approach to climate change and variability in large landscapes, principally in West Africa. BIODEV will also build up local institutions and capacity to be able to sustain the benefits in the sites. It will also establish linkages with related initiatives to jointly build up national and regional capacity to scale up the approaches into other programmes and projects. Furthermore, BIODEV aims at generating critical information that can fill the global knowledge gaps on how to better link climate change mitigation and adaptation thrusts and how to make these actions work effectively to enhance the livelihoods of rural communities.

The overall objective of the project is to achieve sustainable rural development with long term livelihood and environmental benefits to rural populations and the global community under climate change through high value biocarbon approaches.

BIODEV purpose is to develop and implement science-based, validated, high-value biocarbon approaches to sustainable rural development across a range of contrasting locations in West Africa, and to disseminate these results and build capacity for their scaling up in Africa.

The **three sub-objectives** of BIODEV are:

1. To identify and implement context-appropriate integrated interventions for achieving successful high-value biocarbon based rural development in case study landscapes;
2. To develop replicable tools, methods, and models of high value biocarbon interventions and approaches for scaling up;
3. To improve strategies, policies and capacity for scaling up of high value biocarbon approaches at national and regional levels.

The project consists of 7 interrelated work packages (WPs) distributed under three sub-objectives. The first five WPs are components of the first sub-objective (implement an integrated set of biocarbon interventions). The final two work packages relate to sub-objective 2 (to develop replicable tools, methods, and models) and sub-objective 3 (to improve strategies, policies and capacity) of BIODEV.

WP1 – Landscape interventions

WP1.1: Local governance and market institutions

WP1.2: Agroforestry and farm interventions

WP1.3: Forest Interventions

WP1.4: Sustainable wood energy

WP1.5: Measurement, monitoring and verification systems

WP2 - Replicable tools and frameworks of high value biocarbon approaches

WP3 - Policies and capacity for scaling up.

The **partners and stakeholders** of BIODEV in Burkina Faso, Sierra Leone, Mali and Guinea, and the rural communities in the landscape sites, are the immediate beneficiaries of the project. The long-term beneficiaries include rural villages and households in Africa who will benefit from improved access to carbon finance, improved agroforestry and other agricultural innovations for climate change adaptation and mitigation, improved forest management options, and enhanced adaptive capacity.

The broader level of stakeholders and beneficiaries are on four levels:

- 1) The **first level beneficiaries are farm households, pastoralists, forest dwellers and users, other natural resource users and local entrepreneurs** who are producing and using the ecosystem services mainly in Burkina Faso and Sierra Leone. Among these broad groups, the project aims to benefit poor households, women, and other marginalized groups identified in the sites.

2) The **second level beneficiaries** are **local organizations such as farmer groups**, including **women's groups, and local governing bodies** such as district level officials, who will benefit in the form of improved skills, knowledge, linkages, and networking to increase their effectiveness in planning and management.

3) The **third level beneficiaries** are **national development, policy, training and education institutions and research organizations** in the four primary countries. BIODEV will support collaboration with other development projects and organizations to enhance capacity and to enrich the learning of biocarbon related approaches.

4) The **fourth level beneficiaries** are those at the regional level. The project will support efforts by **regional and global institutions** to promote best practices and build technical capacity in climate change adaptation and mitigation and in sustainable land management.

Challenges encountered

The project initially had two main research countries: Mali and Sierra Leone. The countries and sites were selected to represent different ecological zones from semi-arid to humid. Covering such agroecological variation was seen important for understanding how a biocarbon-led approach can best be adapted to different contexts. One of the selection criteria also was that the CGIAR partners have had previous research and development activities in these countries.

After the March 2012 **coup d'état in Mali**, the project first followed the situation in the country in the hope to be able to continue research there. However, it was finally decided to transfer the research activities from Mali to Burkina Faso, and the MFA approved this relocation in April 2013. Mali still continues to benefit from the project's capacity development activities.

Another setback for the project was the outbreak of **Ebola Virus Disease (EVD)** in West Africa. Sierra Leone's first ebola case was identified in late May 2014. Like in Mali, the project followed the situation and hoped to be able to continue field research activities once the country had been declared EVD free. In the meantime, also financial irregularities had been discovered in Sierra Leone, and consequently the Sierra Leone office had been dismantled. In April 2014 the highest decision-making body of the project, the Consortium Council, approved partial return to Sierra Leone after the EVD is controlled, however, without a formal office. While waiting how the situation develops, the local counterpart, Sierra Leone Agricultural Research Institute (SLARI) staff were ready to resume work as soon as the EVD situation would allow it. In October 2015 there were ongoing activities for WP1.1. in Sierra Leone, and the project foresees more activities once a Memorandum of Understanding has been signed with SLARI. In terms of EVD, the situation in Sierra Leone was stable in October, and on 7 November the [World Health Organisation](#) declared Sierra Leone free of Ebola.

Due to the EVD outbreak, a **mid-term review** of BIODEV, which was planned to take place in 2014, had to be postponed and later **cancelled**. Finally, the MFA decided to carry out an evaluation of the project to assess its performance to-date and identify the lessons learnt of this type of new and innovative programmes combining research and development.

There was a **coup d'état in Burkina Faso** in September 2015. Most of the BIODEV field activities were suspended and the project also stopped activities, such as workshops, until the situation in

the country improves. At the end of October 2015, Burkina Faso was politically stable and the Country Coordinator was going on mission to pursue the activities that were suspended. However, the country had recently experienced its first two Islamist attacks in the northern then in the southwestern zone. In each of these zones, police posts were targeted. One officer in the north and three in the south-west were killed. It was unclear whether this was a new trend or how this will unfold in the future.

The development of carbon markets has also been slower than initially thought of. Therefore, the project's initial focus has shifted from carbon finance to other benefits of high-carbon development to local communities.

BIODEV Project Document is attached as Annex 2.

2. Objective of the evaluation

The evaluation shall provide an independent assessment of the performance and progress of the BIODEV project to-date. It shall assess to which extent the project has been able to achieve its objectives, and provide analytical observations on the strengths and challenges of project set-up, implementation and monitoring, management and coordination. Based on the analysis, the evaluation shall make operational and strategic recommendations for the remaining project period, in order to facilitate a smooth closing down process, and sustaining the key achievements of the project when the MFA funding will come to end.

While assessing the individual performance of BIODEV, the evaluation shall take into account the findings of the joint mid-term review report of FoodAfrica and CHIESA. To the extent possible, the evaluation is expected to compare the findings of BIODEV to the information provided by the joint mid-term review. This information is valuable for the MFA in identifying key successes and challenges encountered, as well as the general lessons learnt of this type of new and innovative pilot programmes.

3. Evaluation criteria

While taking into account the challenges the BIODEV project has gone through, the evaluation shall address the main evaluation criteria presented below. Some key issues are identified below, however concrete evaluation questions are expected to be provided by the Consultant in the inception report.

Relevance

Relevance refers to the extent to which the objectives of a project are consistent with beneficiaries' needs and requirements, country and organizational priorities, and partners' and Finland's policies.

Effectiveness

Effectiveness describes if results and outputs have been achieved in terms of quality and quantity, and how they have furthered the attainment of the project purpose.

- Due to the difficulties encountered, how well has the project been able to reach the first and second level beneficiaries (1) farm households, pastoralists, forest dwellers and users, other natural resource users and local entrepreneurs; 2) local organizations such as farmer groups, including women's groups, and local governing bodies such as district level officials?

Efficiency

The efficiency of a project is defined by how well the various activities have transformed available resources into intended results in terms of quantity, quality and time. Comparison should be made against what was planned.

Impact

Impact describes how the project has succeeded in the attainment of its overall objective, i.e. targeted impact for its beneficiaries. What are the overall long-term impacts of the project, intended and unintended, long term and short term, positive and negative?

- Local capacity building (institutions, communities etc.) is an important part of the project. How well has the project succeeded in this target?

Sustainability

Sustainability focuses on evaluating the likely continuation of the project achievements when external support ends. What are the possible factors that enhance or inhibit sustainability?

- Has the phasing out of external support been planned, and will the plan ensure sustainability?

Project Design and Management

- Are the various components able to form a coherent whole? Are the different partners sufficiently aware of what is going on in other work packages and are the work packages complementing each other?
- What is the quality of project management and administration (coordination, communication, information exchange, planning, monitoring, reporting, financial management etc.). How is the key management unit functioning (including the quality and effectiveness of project coordination and sharing of information between the different project partners)?
- Was the geographical/ ecological spread from semi-arid to humid justified?
- Is BIODEV aware of other relevant interventions in the sector and is there cooperation or information sharing between different actors and interventions?
- How functional and cost-efficient (including overheads and transaction costs) is the set-up and management structure of this kind of new project? Based on the assessment, what is the feasibility of this model for MFA's future programming?
- Several risks have been realized during BIODEV implementation and e.g. EVD was completely impossible to foresee. How efficient was the project's response to these challenges, and are there some key lessons learnt for future programs?

The evaluation shall also assess to which extent the project has succeeded in incorporating the key elements of Finland's development policy: **human-rights based approach** and **cross-cutting objectives** (promotion of gender equality, reduction of inequality and promotion of climate sustainability).

MFA funded cooperation on research and development through BIODEV, CHIESA and FoodAfrica

- Based on the findings, what is the feasibility of the approach and set-up used in the MFA funded pilot programmes combining research and development?
- The programmes include a large network of partners: have their roles been clearly defined and has this kind of approach been beneficial? Have the programmes been able to create linkages between different institutions? How could this be improved in the future?
- What is the most effective way for the MFA to support agriculture and natural resources related research and development in the future?

The MFA's Evaluation Manual (2013) is attached as Annex 3.

Relevant MFA policy guidelines are attached as Annex 4.

4. Methodology, timetable and reporting requirements

The evaluation shall be carried out in accordance with the Evaluation Manual of the MFA (2013). The Consultant shall combine different methods to gather representative, correct and justified information and feedback in order to carry out the assignment successfully.

The assignment will include following activities:

- I) **Desk review of relevant documentation and interviews in Finland.** In addition to the Project Document attached as Annex 2 to the ToR, the MFA and the project management team will assist the Consultant by providing all material relevant to the project and sectors. The Consultant shall also interview Finnish project partners presented in Table 1. The contact details of the Finnish partners will be provided by the project management team.
- II) **Inception report.** Before the field mission and on the basis of the desk review, the Consultant shall present a detailed updated work plan, evaluation questions and a list of major meetings and interviews planned for the field visits. The inception report shall be presented in a concise form, e.g. table format.
- III) **Briefing/inception meeting at the MFA**
- IV) **Field visits and interviews.** BIODEV management team is situated in different countries: Project Coordinator in Nairobi, Project Manager in Bamako and Country Coordinators in Burkina Faso and Sierra Leone. This makes interviewing the management team more challenging. At least one project country, Burkina Faso, shall be visited for a field mission. Preferably, the ICRAF office in Bamako can be visited on the way to Burkina Faso, in order to interview Malian partners that have benefitted from capacity building trainings organized in Ouagadougou. The mission in Burkina Faso shall include visits to selected pilot sites to observe project field activities. The management team shall assist the Consultant in providing country level contact information and help with meeting arrangements and planning of field visits when necessary (logistical information etc.). The main partner organizations (Table 1.) and other key partners that cannot be interviewed in person (also in countries not included in field mission/s) shall be contacted and interviewed by using ICT.
- V) **Drafting the first version of the evaluation report.** On the basis of the desk study, field visit and interviews with project partners, the Consultant shall present his/her findings and recommendations in a draft evaluation report.
- VI) **Debriefing.** The Consultant shall present the draft report in two separate debriefing sessions to:
 - a) ICRAF/BIODEV project management team (e.g. through a videolink). The project may invite relevant partners to this meeting (on location or e.g. through a videolink if such equipment is available).

- b) MFA in Helsinki; possibly some embassies will participate through a videolink (e.g. Kenya or Abuja)

VII) Drafting of the final report. The evaluation report shall follow the structure presented in Annex IV of the MFA's Evaluation Manual (Annex 3). Besides answering the evaluation questions, the report shall also synthesize all findings and conclusions into an overall and comparative assessment of the project. To the extent possible, it shall also include a section on lessons learnt of the three research and development programmes (BIODEV, FoodAfrica and CHIESA). The report shall include a table of recommendations for the remaining project period (including responsible institutions) and for the MFA for future planning of research and development related interventions.

A draft report shall be submitted to the MFA one week after the MFA debriefing. The MFA will distribute the report to BIODEV for comments and verification of the factual data presented. The final report shall be submitted within one week after receiving comments from the MFA and project partners (the BIODEV management team will coordinate the project response with different partners). The assignment will be considered to be successfully completed once the MFA has approved the final report.

The evaluation assignment shall be carried out tentatively **between January-February 2016**. The estimated duration of the Consultancy is **30 days**. The minimum duration of the field mission(s) is 10 days.

The reports shall be written in English and submitted to the MFA electronically.

The maximum length of the final report is 50 p. without annexes.

5. Expertise required

The MFA is looking for a Consultant who has experience and knowledge in a development country setting, preferably in Sub-Saharan Africa, in the following areas:

- Project appraisals, reviews and evaluations
- Scientific research for development, familiarity with international research institutes
- Experience in disseminating research results
- Finnish development cooperation policy and procedures, including project management and administration
- Mainstreaming Finnish cross-cutting objectives
- Climate change mitigation and adaptation, natural resource management and rural development
- Experience of similar research and development programs (e.g. FoodAfrica or CHIESA)

6. Budget

Total value of the Contract is a **maximum of 29 900 euros**, including fees and reimbursable costs (excluding Finnish VAT). Since the total value of the procurement is below the threshold of 30 000 Euros, the Act on Public Contracts (348/2007) shall not be applied. Invoicing shall be made at the

end of the assignment, once the MFA has accepted the final evaluation report. Invoicing shall be based on the number of actual consultancy days carried out + reimbursable costs. Travel costs will be reimbursed according to the Finnish State Travelling Regulations (Annex 5).

7. Mandate

During the assignment, the Consultant is entitled and expected to discuss with the pertinent persons/organizations any matters related to the assignment. However, the Consultant is not authorized to make any comments or statements on behalf of the MFA, the Governments of African Partner Countries or Organizations participating in the BIODEV project.

8. Other information

Specifications to the ToR may be provided by the MFA in the beginning of the assignment.

Annexes:

1. Joint Mid-term review report of FoodAfrica and CHIESA, Niras Finland Oy, 2014
2. BIODEV final Project Document, 2014
3. Evaluation Manual, 2013:
<http://formin.finland.fi/public/default.aspx?contentid=288455&nodeid=15145&contentlan=2&culture=en-US>
4. Policy guidelines
Finland's Development Policy Programme, 2012:
<http://formin.finland.fi/public/default.aspx?contentid=251855&culture=en-US>
The new programme will be available in near future
Development policy guidelines for forest sector, 2013:
<http://formin.finland.fi/public/default.aspx?contentid=288213&nodeid=15445&contentlan=2&culture=en-US>
Development policy guidelines on agriculture and food security, 2010:
<http://formin.finland.fi/public/default.aspx?contentid=203183&nodeid=15445&contentlan=2&culture=en-US>
5. Finnish State Travelling Regulations, 2015
EN:
<http://vm.fi/documents/10623/1107475/Collective+agreement+concerning+compensation+for+travelling+expenses+2015/bf336822-31d3-4648-8309-4f68ccbadb8c?version=1.2>

FI:
<http://vm.fi/documents/10623/1107475/Matkustuss%C3%A4%C3%A4nt%C3%B6+2015/173991e0-949c-42c9-8af0-fbef6b0e2f30?version=1.0>

Annex II

Itinerary and work programme of the field visit

		Wednesday 3.2.	Thursday 4.2.	Friday 5.2.	Saturday 6.2.	Sunday 7.2.
		Travel from Finland to Mali	Am. Meeting at ICRAF Sahel Node office Pm. Meeting with DNEF	Am. Meeting with SahelEco Meeting AEDD Pm. Meeting at ICRAF Sahel Node office	Am. Travel from Bamako to Ouagadougou Pm. Meeting with WP1.3 Meeting with WP1.1	Desk work
Monday 8.2.	Tuesday 9.2.	Wednesday 10.2.	Thursday 11.2.	Friday 12.2.	Saturday 13.2.	
Visit to landscape sites in Cassou area	Am. Meetings with INERA Pm. Meeting with TreeAid	Am. Desk work Pm. Meeting with SP/CONEDD	Am. Tele-meeting with MAFFS/Guinea Pm. Tele-meeting with SLARI	Am. Meeting with Project Manager Country Coordinator Pm. Travel from Burkina Faso	Travel to Finland	

Annex III

Persons consulted

Name	Organisation	Position	Country
35 men and women	Cassou area	Landscape level beneficiaries	Burkina Faso
Amara, Edward	SLARI/ICRAF	Scientist	Sierra Leone
Bayala, Jules	ICRAF	BIODEV Project Manager	Mali
Bazie, Paulin	INERA	WP1.2 Technician	Burkina Faso
Betemariam, Ermas	ICRAF	WP1.5 Leader	Kenya
Binam, Joachim	ICRAF	M&E Specialist	Mali
Compaoré, Hamjidou	INERA	Deputy Director	Burkina Faso
Degrande, Ann	ICRAF	WP1.1 Leader	Cameroon
Dembele, Catherine	ICRAF	WP1.2 Co-Leader	Mali
Dembele, Pierre	SahelEco	Secretary General	Mali
Diasso, Zachée	UGGF Cassou	Secretary General	Burkina Faso
Dibloni, Théophile Ollo	INERA	Head of Department	Burkina Faso
Djiguimde, Omar	CAF Cassou	Forest Engineer	Burkina Faso
Gboku, Matthew	SLARI	BIODEV Focal Point	Sierra Leone
Kaarakka, Vesa	MFA	Forestry Advisor	Finland
Kalame, Fobissie	UH / VITRI	WP3 Co-Leader	Finland
Kalinganire, Antoine	ICRAF	WP1.2 Leader	Mali
Kanninen, Markku	UH/VITRI	WP3 Leader	Finland / Indonesia
Keita, Amara	Ministry of Agriculture	BIODEV Focal Point	Guinea
Koné, Sekou	AEDD	Focal Point for Climate Change	Mali
Mbow, Cheikh	ICRAF	WP2 Leader	Kenya
Neufeldt, Henry	ICRAF	BIODEV Project Coordinator	Kenya
Nignan, Luc	CAF Cassou	Technician	Burkina Faso
Njoroge, Josephine	ICRAF	Administrative Officer	Kenya
Ouedraogo, Daniel Désiré	TreeAid	Natural Resources Manager	Burkina Faso
Penttinen, Anu	MFA	Programme Officer	Finland
Pitkänen, Sari	UEF	WP1.4 Leader	Finland
Poudiogou, Ali	DNEF	Head for Forest Development and Utilisation	Burkina Faso
Sanou, Josias	INERA	BIODEV Focal Point	Burkina Faso
Siribie, Sibiri	TreeAid	Finance & Resources Manager	Burkina Faso
Sompougou, Alexis	TreeAid	Projects Officer	Burkina Faso
Tapsoba, Aïcha	INERA	WP1.1 Technician	Burkina Faso
Tondoh, Jerome	ICRAF	BIODEV Country Coordinator for Burkina Faso	Mali
Traoré, Etienne	CONEDD	Focal Point of Climate Change	Burkina Faso
Traoré, Seyni	DNEF	Director of Division for Conservation of Soil, Water and Flora	Burkina Faso
Valjas, Arto	MFA	Advisor	Finland
Väisänen, Jatta	MFA	Programme Officer	Finland
Zida, Didier	CNRST	Chief of Programme Services & Scientific Control	Burkina Faso
Zida, Mathurin	CIFOR	WP1.3 Leader	Burkina Faso