

Evaluation of the project "Action Against Desertification in support of the implementation of the Great Green Wall for the Sahara and the Sahel Initiative and of the UNCCD action plans in Fiji and Haiti, and South-South cooperation in the Africa Caribbean and Pacific countries"



Project Evaluation Series 06/2022

Evaluation of the project

"Action Against Desertification in support
of the implementation of the Great Green
Wall for the Sahara and the Sahel Initiative,
the United Nations to Combat
Desertification and Drought action plans in
Fiji and Haiti, and South-South cooperation
in the African, Caribbean and Pacific Group
of States"

Project code: GCP/INT/157/EC

Required citation:

FAO. 2022. Evaluation of the project "Action Against Desertification in support of the implementation of the Great Green Wall for the Sahara and the Sahel Initiative, the United Nations to Combat Desertification and Drought action plans in Fiji and Haiti, and South–South cooperation in the African, Caribbean and Pacific Group of States". Project Evaluation Series, 06/2022. Rome.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

ISBN 978-92-5-136238-9 © FAO, 2022



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original English edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization http://www.wipo.int/amc/en/mediation/rules and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through <u>publications-sales@fao.org</u>. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Cover photograph: ©FAO/A. Sowe

Abstract

This document consolidates the findings, conclusions and recommendations from the evaluation of the project "Action Against Desertification in support of the implementation of the Great Green Wall for the Sahara and the Sahel Initiative, the UNCCD action plans in Fiji and Haiti, and South–South Cooperation in the African, Caribbean and Pacific Group of States" (also known as "Action Against Desertification" or "AAD"). The project was designed and implemented to tackle the detrimental social, economic and environmental impacts of land degradation and desertification in Burkina Faso, Ethiopia, Fiji, the Gambia, Haiti, the Niger, Nigeria and Senegal, implemented from 2014 to 2020.

The evaluation was entirely conducted during the COVID-19 pandemic. Over 300 informants were heard through i) online interviews (with regional and (inter)national authorities, FAO/AAD personnel and operational partners) and ii) face-to-face interviews and focus-group-discussions with final beneficiaries and local partners during field visits in all eight participating countries, which also allowed for direct observation of land restoration and livelihood activities. A quasi-experimental geospatial study provided an objective and qualitative accounting of the impact of AAD activities on land restoration and a desk review of dozens of documents was conducted.

The project is relevant to the eight countries involved and contributed to improving the conditions/productivity of agrosilvopastoral landscapes and the capacity to plan land restoration and manage forest and land resources. Livelihood improvements were found in all countries, with a concrete positive incidence on household income, food security, crops and milk production, and community interactions. It increased awareness and informed and supported policy makers developing intervention strategies that address desertification/land degradation and drought (D/LDD). The large-scale, heavy machinery-based technical intervention logic is appropriate to address D/LDD in specific conditions, particularly in African/Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI) countries, but the intervention mix could have considered additional approaches.

The geospatial study estimated the contribution of AAD projects to carbon sequestration to be between 384 000 and 1.27 million tonnes of carbon sequestered (an increase of 2.2 percent to 9.3 percent from baseline), for a median valuation of USD 3.9 million.

Shortcomings/challenges included the short duration of the project, wide geographic extension and complex management structure. The M&E system included one indicator on gender, did not allow for capturing vulnerable-group disaggregated data and specificities of land tenure issues for women and of internally displaced people were inadequately treated in the project. The monitoring and evaluation (M&E) system did not capture survival rates of planting which would allow for triangulation of geospatial study results. Ecological and financial literacy were missing pieces in the approach as well as involvement of private sector in value chain development (demand side). COVID-19 impacted project delivery on the final year of implementation.

Future initiatives should capitalize on AAD's outcomes and build on lessons from project design and implementation by utilizing the project as a management model. Recommendations include training; building awareness and addressing climate change and land degradation; increasing political and policy coherence; guaranteeing sustainability and buy-in from beneficiaries; building in sustainable financing mechanisms at all stakeholder levels; increasing opportunities; and developing non-timber forest product (NTFP) value chains to create and develop viable markets for the products.

Contents

	edgements	
	tions and acronyms	
	summary	
1. Intro	duction	1
1.1	Purpose of the evaluation	
1.2	Scope and objectives of the evaluation	
1.3	Intended users and audience of the evaluation	
1.4	Main evaluation questions	
1.5	Evaluation methods	
1.6	Limitations	
2. Back	ground and context of the Action Against Desertification (AAD) project	7
2.1	FAO's AAD mandate and contribution to the Great Green Wall for the Sahara	
	and the Sahel Initiative (GGWSSI)	
2.2	Summary of activities undertaken in each of the eight AAD countries	
2.3	AAD's theory of change	
2.4	AAD's monitoring and evaluation system	
3. Key l	Findings – answers to evaluation questions	21
3.1	Design, alignment and relevance	21
3.2	Effectiveness	33
3.3	Sustainability	50
4. Conc	lusions and recommendations	61
4.1	Conclusions	61
4.2	Recommendations	64
Bibliogra	phy	69
_	κ 1. People interviewed	
Appendix	c 2. Logframe matrix – achievement of indicators	73
	c 3. Evaluation matrix	
	र 4. Theory of change narrative and diagram	
	c 5. List of country reports	
Appendix	6. How AAD addressed the beneficiaries' needs and expectations as reconstructed	
•	during the 2020 evaluation field visits	
Annexes.		95

Figures and tables

Figures

Figure 1. Iterative AAD map (situation early 2021)	8
Appendix Figure 1. Reconstructed AAD theory of change (TOC) – Part 1	
Appendix Figure 2. Reconstructed AAD TOC – Part 2	91
Table 1. Summary of training sessions, capacity development, beneficiaries, and the AAD team in	
numbers Table 2. Summary of seeds, seedlings, hectarages of planted areas, non-timber forest products	11
(NTFPs) developed, and income generated with beneficiary communities of the project, including women (42 percent)	15

Acknowledgements

The Food and Agriculture Organization of the United Nations (FAO) Evaluation Office (OED) would like to thank all the stakeholders from all eight countries connected with the Action Against Desertification (AAD) project who freely and enthusiastically gave their time and ideas to support this evaluation.

We are very thankful to AAD's global project team. We particularly thank Merieme Ihiri and Moctar Sacande for giving us access to all the documents, and facilitating the stakeholders' access to these documents and resources as needed.

Data collection on the field was performed by evaluators based in each of the eight AAD countries. They have travelled amidst the COVID-19 pandemic, giving voice to the communities involved in AAD and allowing them to have access to this evaluation. Many thanks to Karim Savadogo (Burkina Faso), Yitbarek Gebremedhn Kihshen (Ethiopia), Sairusi Bulai (Fiji), Amadou Sowe (the Gambia), Jean Chariot Michel (Haiti), Ismaël Tinno Ibrahim (the Niger), Umar Idris Giginya (Nigeria) and Papa Walil Gueye (Senegal).

The support provided by the FAO country offices in the eight AAD countries was essential for this evaluation, and included support to the above-mentioned country-based evaluators. We thank the FAO country offices in the name of AAD Coordinators Damas Poda (FAO Burkina Faso), Issifou Wata (FAO Niger), Thomas Fameso (FAO Nigeria), Mignane Sarr (FAO Senegal), Abdoulie Danso (FAO Gambia), Patrick Bahal (FAO Ethiopia), Maika Daveta (FAO Fiji) and Mykerlange Balmir (FAO Haiti).

Within OED, Luisa Belli, Evaluation Officer, provided extremely valuable support and guidance. Ekaterina Dorodnykh, Evaluation Specialist, and Ana Karen Bustamante Avedaño, Evaluation Analyst, provided support in consolidating the collected data and reviewing the report.

Lene Poulsen and Ananie Cyrille Ekoumou Abanda, external independent consultants, conducted the first phase of this evaluation.

The main evaluation team was composed of Daniel Runfola, Geospatial Expert and Patrick VanDamme, Evaluation Team Leader. The Evaluation Manager was Emilia Bretan, FAO Office of Evaluation (OED).

Abbreviations and acronyms

AAD Action Against Desertification

ACP African, Caribbean and Pacific Group of States

ANR Assisted natural regeneration AUC African Union Commission

D/LDD Desertification/land degradation and drought

EC European Commission

FAO Food and Agriculture Organization of the United Nations

FLR Forest and landscape restoration

FPMIS FAO Field Programme Management Information System

GGW Great Green Wall

GGWSSI Great Green Wall for the Sahara and the Sahel Initiative

M&E Monitoring and evaluation

MTR Mid-term review

NGO Non-governmental organization
NTFP Non-timber forest product
PMU Project management unit
SDG Sustainable Development Goal
SLM Sustainable land management

UNCCD United Nations Convention to Combat Desertification and Drought

Executive summary

- 1. Action Against Desertification (AAD) is an initiative of the African, Caribbean and Pacific Group of States (ACP) to restore drylands and degraded lands in Africa, the Caribbean and the Pacific to tackle the detrimental social, economic and environmental impacts of land degradation and desertification. As such, and in Africa, it is a key partner of the Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI), Africa's flagship programme to combat the effects of climate change and desertification across North Africa, the Sahel and the Horn of Africa.
- 2. The "Action Against Desertification in support of the implementation of the Great Green Wall for the Sahara and the Sahel Initiative, the United Nations Convention to Combat Desertification and Drought (UNCCD) action plans in Fiji and Haiti, and South–South cooperation (SSC) in the African, Caribbean and Pacific Group of States (ACP)" project (GCP/INT/157/EC) was launched in 2014 and implemented by the Food and Agriculture Organization of the United Nations (FAO) and partners with funding from the European Union. The project was completed in August 2020. The total project budget, funded by resources from the Intra-ACP's tenth European Development Fund (EDF), amounted to EUR 19 930 479, of which EUR 15 763 479 corresponds to the African component, and EUR 4 167 000 to the Pacific/Caribbean component. Beginning in 2015, FAO mobilized co-funding from 20 parallel projects implemented within the eight countries (including 13 projects in Africa and seven others in the Caribbean and the Pacific) for a total of EUR 4 625 648.
- 3. FAO's AAD supported local communities, governments and civil society in six African countries Burkina Faso, Ethiopia, the Gambia, the Niger, Nigeria and Senegal as well as in Fiji and Haiti to: i) restore degraded land; ii) and manage fragile ecosystems in a sustainable way with the overall goal to iii) improve livelihoods through the provision of restored lands' (by-) products.
- 4. This evaluation focused on assessing the results, relevance and sustainability of the programme, adopting a qualitative approach; it covered the entire period of the AAD implementation (six years, from July 2014 to August 2020) and included all eight AAD countries. The evaluation was entirely conducted during the COVID-19 pandemic, which imposed limitations to the data collection and timeline.
- 5. The evaluation adopted a mixed-methods approach. Over 300 informants were interviewed in semi-structured interviews (SSIs) and focus group discussions during field visits by national consultants in each of the eight AAD countries, including communities, farmers and their families, members of academia and research institutions, non-governmental organizations (NGOs) and community-based organizations, implementation partners, and government and service providers. Remote SSIs were conducted with members of the Secretariat of the ACP, the African Union Commission (AUC), the European Union, the GGWSSI country representations and AAD task force members from FAO at global, regional and country levels (in all AAD countries), and UNCCD representatives. Field visits included observations of results of sustainable land management (SLM) and restoration activities, and livelihood activities. A quasi-experimental impact study used data and results generated by the geospatial, satellite imagery-based monitoring tool developed and tested by the project to provide an objective and qualitative accounting of the impact of AAD activities on land restoration.
- 6. The evaluation faced many limitations, including travel restrictions imposed by COVID-19-containing measures (which brought about a review of the evaluation methods), connectivity challenges, the significant difference in scope of the intervention among the eight AAD countries,

limitations in the selection of areas for field visits and selection of informants, and challenges in validating the project's monitoring data.

Main evaluation findings

Relevance and design

- 7. The AAD initiative is relevant and responded appropriately to the goals and objectives of the agencies involved as well as to the targeted beneficiary communities in the eight project countries. The AAD project was in line with the GGWSSI and promoted innovative interventions and monitoring and evaluation (M&E) strategies such as the use of geospatial monitoring.
- 8. The project's design and relevance were also in line with FAO's strategic framework; it directly contributes to Sustainable Development Goal (SDG) 15 (Life of Land) by restoring and promoting sustainable use of terrestrial ecosystems, and sustainably managing forests and combating desertification, but SDG 13 (Climate Action) was only addressed indirectly (through carbon sequestration).
- 9. The large-scale, heavy machinery-based technical intervention logic is appropriate to address desertification, land degradation and drought (D/LDD) in specific conditions, particularly in African/GGWSSI countries. The intervention mix could have considered additional approaches such as assisted natural regeneration (ANR), as well as socioeconomic issues and financial sustainability.
- 10. The short duration of the project, wide geographic extension and complex management structure are shortcomings. The beneficiaries' immediate needs in terms of food production and food security aspects were not sufficiently considered. Local beneficiaries' buy-in remained low and the concrete results attained (restored and planted surface areas and developed value chains) were slow to come and/or under par/expectations. This was due to the late start of restoration activities and/or linked to the large scale of the interventions.
- 11. The overall relevance of the project for all eight countries was high, but coherence was low and related to a lack of a programmatic approach by FAO in liaising with/connecting to other initiatives by FAO or other institutions in the project's intervention area. There was a divide in concept rationale and logic, concrete intervention activities and technical solutions offered between the six GGWSSI-countries in Africa, and Haiti and Fiji.
- 12. The project helped build a "green growth" message at national levels thanks to the use of media and targeting of diverse audiences. In countries in which political stability was at risk, AAD continued to collaborate with local governments and stakeholders to put its interventions on the ground.

Effectiveness

13. Up to a certain level, the project addressed the needs of the targeted beneficiary groups in terms of livelihood and improvement of production system productivity. The AAD project contributed to improving the conditions/productivity of agrosilvopastoral landscapes, although on a more limited scale and at a higher cost than expected. It (AAD) organized regional workshops, international events, meetings and technical visits for lesson learning and exchange, but overall, South–South Cooperation was limited. The reported positive results were the adoption of specific planting and harvesting techniques in Fiji and Haiti, based on the experiences of Burkina Faso and the Niger.

Results outcome 1

- 14. Institutional capacity-level assessments were conducted in all countries prior to, during, or just after inception of the ADD project, and informed the development of training schemes and activities. An estimated total of 24 257 beneficiaries were reached through 251 training sessions and workshops on how to use improved/innovative, sustainable land/forest management practices and technologies for sustainable land/forest management and restoration efforts. The project also trained technicians and stakeholders at all levels in planning, implementing, monitoring and evaluating biophysical and socioeconomic activities. Overall, beneficiaries seemed to see and appreciate the advantages of the new techniques.
- 15. The project did not have a programmatic approach when addressing the logic and themes of the training sessions, which consequently did not allow for developing the necessary organizational and technical competencies for managing and implementing activities and technologies.

Results outcome 2

- 16. AAD's target communities are better equipped to effectively plan land restoration and subsequently manage forest and land resources for improved soil fertility and productivity through a number of project-proposed management methods and technologies. The use of local species in restoration combining traditional knowledge on native plant species with science-based, applied plant/ing expertise worked well.
- 17. Training on the development of non–timber forest products (NTFPs) value chains resulted in the establishment of income-generating activities in each country. Increased stakeholder involvement and cooperation, and revitalization of existing groups successfully occurred. Communities report changes in their traditional approach to land management following AAD's intervention (training of beneficiaries in African AAD countries on how to use improved/innovative, sustainable land/forest management practices and technologies). Beneficiaries claim to see and appreciate the advantages of the new techniques, but there is limited evidence of adoption and use of practices.
- 18. There is evidence that additional income was generated and that there were improvements in livelihoods in all countries, with higher income coming from salaries derived from temporary jobs created by the project: concrete positive incidences on household income, food provision/security (crops and milk), as well as improved community interactions (fewer farmer–pastoralist conflicts and land disputes) were also mentioned in all countries.
- 19. The project trained technicians and stakeholders at all levels in planning, implementing, monitoring and evaluating biophysical and socioeconomic activities.
- 20. The figures reported by AAD do not provide information on the success/survival rates of seeds and seedlings planted. Ecological and financial literacy were missing pieces in the approach. The private sector was not seen to invest directly in land restoration and was not called in to become involved in value chain development (demand side).

Results outcome 3

21. The project communicated on its activities from the beginning, making use of different media to connect to a broad group of stakeholders at various levels in AAD's geographical intervention area and beyond. However, key target audiences and stakeholders from the European Union and in ACP countries were hardly aware of the project's existence. Even then, the project was able to inform and support policy makers in their efforts to develop intervention strategies addressing

D/LDD in various countries. The project lacked dedicated staff to implement and adapt a communication strategy that would have allowed it to reach a broader audience in a consistent way and on a continuous basis.

Equity, gender and human rights

- 22. The AAD project acknowledged the importance that women, youths and the disabled have as community members, and the benefits that should have come from the project in terms of capacity building, labour contracts for restoration activities, infrastructures, memberships of implementation and management committees.
- 23. Activities such as the NTFP groups supported by the project provided decent work opportunities to women and youths. The NTFPs and other related value chains are driven and managed by women. A fair proportion of women and youths were involved in capacity building exercises in most AAD countries.
- 24. However, there was only one indicator in the M&E system that focused on gender. The M&E system did not allow for capturing vulnerable-group disaggregated data. Women were underrepresented in project coordination and management offices at all levels. Specificities of land tenure issues for women were not, or only inadequately treated in the project. The project failed to address the specific problem of internally displaced people.

Efficiency and coordination

- 25. The implementation of AAD was in line with the project's design. Progress on implementation and delivery could be monitored through FAO's Field Programme Management Information System (FPMIS), although information was not always updated.
- 26. Effectively, the project's task force managed to resolve issues related to delays in certain processes, staff issues, security risks, and natural disasters affecting the performance of interventions, in spite of the fact that FAO's management and administration processes often resulted in the untimely implementation of project activities. Late delivery of heavy tractor equipment and two of the four Delfino ploughs towards the end of the project, and partly explained by procurement difficulties explains why land preparation was only started very late into the project. The COVID-19 crisis hit the project quite hard during the final phase of the last, no-cost extension year.
- 27. Overall, management arrangements, M&E and the governance structure of the project fell short of delivering the expected/intended results in an efficient way. The findings of the mid-term review (MTR) came too late, making it difficult to address recommendations. Coordination between FAO and the project management units (PMUs) particularly in the African countries, in terms of the respective roles in international project coordination in Rome and in the AUC African Hub of the Great Green Wall (GGW) were not always clear. Resources were not uniform across country PMUs for proper implementation of the project.
- 28. A number of initiatives that are in line with and/or got inspiration from AAD (on the basis of both shared success stories and active lobbying work by international project coordination) were initiated and launched during implementation of the project, or at least presented to the international donor community; the latter pledged millions of euros to address land restoration, especially in Africa's GGW area. The AAD initiative supported resource mobilization SLM and restoration, including the Boosting Restoration, Income, Development, Generating Ecosystem Services (BRIDGES) project, a subset of initiatives under AAD that supports similar GGW

interventions in Eritrea, Mauritania and Sudan, readiness funds, and FAO's technical coordination programme (TCP) facility funds to prepare full proposals in Burkina Faso (readiness approved in early 2018), Mauritania and Sudan.

Sustainability

- 29. National governments have committed to continue investing money in activities that will address D/LDD to develop policies and create the enabling environment to facilitate the setting up of land restoration and reforestation initiatives with elements of income-generating activities. No tangible strategies are in place yet.
- 30. Beneficiaries in most countries are confident about continuing the activities promoted by AAD. At the same time, local community groups lack the necessary skills and means to sustain said activities, and therefore it is questionable that they will indeed be continued after project completion, or that the project infrastructure will be maintained/will continue to be managed.
- 31. Contextual factors that could represent additional threats to the sustainability of the project's results include continuing animal pressure in restoration areas, security threats and the COVID-19 pandemic.

Progress towards impact

- 32. The project initiated a number of new women's NTFP value chain groups and consolidated existing ones which were sensitized and trained in more modern processing techniques. Local village/NTFP-processing and marketing management committees were formed and trained to prepare them to continue managing restoration and replanting activities.
- 33. Collecting grass and herbs from restored areas for selling as fodder may motivate farmers to continue to engage in similar D/LDD activities. Field visits were able to document several cases where (in some cases even a substantial) income was generated from collecting and selling forage from restored land (the Niger and Senegal). Improved beekeeping and honey production (in all countries) with modern hives (Fiji, Haiti, the Niger, Nigeria) offer a sustainable source of income, while also providing important ecosystem services (pollination), and are immediately operational. At the physical level, some 50 000 hectares were prepared/restored by the project. If properly managed, these could/should provide the basis for NTFP value chain development, serve as examples for new initiatives, and be the starting point for further extensions (spillover/multiplier effect).
- 34. The absence of a cost–benefit assessment and more business-like approach to tackling/solving the problems at hand, does not allow for being able to make a quantitative estimate of the returns on project investment.

Conclusions

- 35. The AAD initiative contributed to improving the conditions/productivity of agrosilvopastoral landscapes. Target communities report changes in traditional approaches to land management, and improved capacity to plan land restoration and manage forest and land resources. The project also contributed to the restoration of large, degraded areas. Additionally, the project increased awareness of the need to protect the environment through a participatory and concerted management model.
- 36. It contributed to realizing livelihood improvements in all countries, with higher incomes coming from salaries derived from temporary jobs created by the project and, to a minor degree, from

project-initiated, income-generating activities. Concrete positive incidence on household income, food security, crops and milk production, and community interactions (fewer farmer–pastoralist conflicts and land disputes) were also reported from all countries. Compared with the initial ambitions of the project, though, the level of success can be considered low.

- 37. The AAD project contributed to promoting and giving visibility to the GGWSSI to most stakeholders concerned by the broad thematics of land restoration and reforestation through its publications in scientific journals and presentations in (global) events.
- 38. The AAD success stories helped promote local and national advocacy, and convince local politicians and policy makers to integrate D/LDD work into the respective countries' broader development plans.
- 39. The focus on addressing D/LDD is relevant since it intends to directly address D/LDD and associated NTFP value chain development issues that are at the core of the beneficiaries' livelihoods. The commitment to actively engage in planting a combination of local trees/shrubs and herbs/grasses and, more importantly, to take responsibility in sustainably preparing land and managing plantations beyond project intervention was clearly a very valid AAD approach, even though elements of food (in)security (heartfelt concerns of the beneficiaries), and long-term sustainability issues were not sufficiently considered. The short duration of the AAD design and lack of addressing/creating an eco-literate basis were limitations.
- 40. The project confirmed that at a technical level, in large-scale land preparation, using a Delfino plough when planting/sowing will indeed work and can be considered appropriate when addressing D/LDD in specific, extreme D/LDD conditions, especially with the right socioeconomic accompanying measures.
- 41. At the level of South–South (S–S) exchanges, the reported positive results were the adoption of specific planting and harvesting techniques in Fiji and Haiti, based on the experiences of Burkina Faso and the Niger. Overall, the global design and SSC did not create relevant added value for the project as S–S exchanges and learning remained limited. The set of pre-packaged solutions that was to be applied in the eight countries covered by AAD did not sufficiently consider concrete local, context-specific (environmental/sociocultural) situations, particularly in Haiti and Fiji.
- 42. The management arrangements reflected the complexity of the triangulation between the European Commission (EC), FAO and AUC, and impacted AAD's M&E system design and administrative procedures in terms of absence of subsidiarity and decentralization. PMUs were created in all countries, although with differences between countries when it came to acknowledging/considering local institutional and personnel capacities.
- 43. The NTFP-processing interest groups were created and trained by the project on a number of organizational and technical issues. Training provided on the development of NTFP value chains influenced the establishment of income-generating activities in each country. The NTFP groups were supported to provide them with the skills needed to bring good-quality products to the market. Private sector engagement was low, especially on the demand side.
- 44. The project has communicated with a broad group of stakeholders at different levels, developed several documents and articles, and co-organized events; even then, several target audiences, such as the European Union public, are hardly aware of the project's existence, activities, achievements, or impact.

- 45. The Niger, Nigeria and Senegal are good examples that show that the local champion leadership model works and should be strengthened. Overall, AAD's strategy to build on successful grassroot organizations and their (charismatic) leaders was not clear.
- 46. The AAD project developed M&E solutions and instruments that were intended to allow for: i) a posteriori reconstruction, as well as possible, of the initial/baseline/zero situation; and ii) also monitor changes against this "zero situation." This was especially valid when it came to verifying/monitoring prepared and planted surface areas (satellite imagery), but not when socioeconomic changes had to be monitored. The M&E system did not allow for proper monitoring and learning due to lack of proper and project-wide guidance, and eventually quantified data.
- 47. The project's geospatial monitoring work showed that i) satellite-based monitoring data could allow for evidencing and documenting the "real" starting situation up to a certain level, even in the absence of physically field-collected and -validated baseline data; as well as ii) also allow for proper monitoring of what goes on in the field. However, in the absence of a systematic ground-truthing tool, its validity still remains questionable and should be addressed.
- 48. COVID-19 contributed to challenges in planning, managing and communication at the end phase of the project. Sustainability of the project's results is questionable, due to i) absence of proper sensitization at start-up that would/could have brought about proper ownership and buy-in of investments by beneficiaries; and ii) financial/business model(s) that would have allowed for covering maintenance and new investment costs with/by governments and local communities that should be/are expected to continue AAD's interventions and maintain the infrastructure it put up beyond its completion.
- 49. Given its design as a single project in a short time frame, AAD's scale has been limited. The figures provided document the prepared/ploughed and planted surface areas but not necessarily planting success. The same applies to NTFP production and processing groups.
- 50. The geospatial study estimated the contribution of AAD projects to carbon sequestration to be between 384 000 and 1.27 million tonnes of carbon sequestered (an increase of 2.2 percent to 9.3 percent from baseline), for a median valuation of USD 3.9 million.

Recommendations

51. The recommendations are intended to be taken up by a possible follow-up initiative that would capitalize on AAD's outcomes and build on lessons from project design and implementation.

Recommendation 1. Concentrate future forest landscape restoration projects on the African continent to increase political and policy coherence, and lower administrative load. Work in conjunction with, and under the same broad content umbrella offered by the GGWSSI.

Recommendation 2. Adopt a management model that would give more responsibility to local/decentralized levels. Central authorities should provide leadership and support, and only perform tasks that cannot or should not be performed at a decentralized level.

Recommendation 3. FAO should partner with major donors and organizations for a strong livelihood and process approach, as well as for more emphasis in development-oriented capacity building for greater buy-in and sustainability, and build on its comparative advantages (particularly technical knowledge on land degradation and drought (LDD) and restoration).

Recommendation 4. Addressing landscape restoration and investing time and money in reforestation would require a more holistic, multidisciplinary programmatic approach that covers the material and conceptual socioeconomic aspects of D/LDD-mitigation.

Recommendation 5. Within a programmatic approach and logic, increase the total initiatives/programmes/project duration for greater progress, achievements and impact, with a time horizon of at least 8 to 12 years, starting with an inception phase of at least 1.5 to 2 years.

Recommendation 6. Invest in tailor-made solutions and approaches for which respective, local management units and service providers should be trained and monitored, to provide the best possible solutions for each specific situation.

Recommendation 7. Adapt large-scale interventions to address and respect local characteristics, and integrate large-scale, machine-based approaches with smaller-scale, more labour-intensive ones.

Recommendation 8. A large-scale approach to land restoration using the Delfino plough can successfully prepare large surface areas if and when i) adequate baseline data confirm that heavy machinery will not harm soil; ii) technical intervention follows successful sensitization and training of target communities on organizational, financial and entrepreneurial matters; and iii) it engages local populations at all steps and ranges of interventions for ownership.

Recommendation 9. Adopt a two-pronged approach, starting with a long inception phase to build awareness at all levels on climate change and land degradation, and on ways to address these issues. Create strong PMUs in each country during inception, lodging them within the relevant line ministries and/or national agencies in charge of managing the GGWSSI (Africa) and/or land restoration to guarantee greater post-project sustainability.

Recommendation 10. Future forest and landscape restoration (FLR) projects should address all issues covered by agrosilvopastoral and integrate crop and animal production aspects into their reforestation/landscape restoration approaches. Increase the focus on wood (fuel)-related issues and maintain NTFP processing and marketing as possible sources of income. Before starting, take stock of the beneficiaries' priorities and integrate these with their D/LDD-mitigation interventions. Government policy should also promote stakeholder participation at all levels of the decision-making and implementation chain.

Recommendation 11. Any FLR initiatives would need to i) organize baseline surveys that combine an analysis of the physical elements of land degradation and desertification with the related/causal socioeconomic/human factors, and focus on defining beneficiaries priorities; ii) this should be followed by multi-stakeholder dialogues and sensitization workshops, especially involving the communities in the planned intervention areas, before any promises are made, or any concrete initiative is taken; iii) obtain clear commitments by communities on financial and human resources as a prior condition for investment in crop production and land restoration; and iv) formalize the collaboration between existing and new groups and the project by providing capacity training on creating and managing committees, and further provide them with the conceptual tools and hardware to allow them to invest in participatory community/village land use plans and subsequent project activities.

Recommendation 12. Foster dialogue between migrating/transhumant cattle growers and sedentary farmers/communities that engage in tree/shrub plantations to sensitize them to the FLR thematics and their potential benefits.

Recommendation 13. Alternative means of livelihood should be presented/provided beforehand to goat/sheep herders when implementing planting programmes. Consider the integration of community development schemes and increased opportunities for employment by the development of rural industries.

Recommendation 14. The FLR projects should have a more business-like approach, respecting a strict financial and economic costing logic, and providing material and immaterial cost–benefit and economic analyses for the planned interventions, including provision of payback- and break-even periods. Develop sound business plans.

Recommendation 15. Develop NTFP value chains by linking NTFP groups to private enterprises that could help create and develop viable markets for the products.

Recommendation 16. Invest in sensitizing beneficiaries to the intervention's problems and thematics and obtain expression of complete engagement prior to starting activities. A greater level of involvement of all stakeholders – including beneficiaries, service providers and line ministries – would generate commitment and partnership to fight drought and desertification, and nurture potential spillovers.

Recommendation 17. Prepare and implement a programmatic, linear and well-prepared approach to communication and outreach involving stakeholders across the whole intervention chain, linking up with the GGWSSI implementation strategy. Include a dedicated communication officer, and monitor and adapt the communication strategy along the way in order to bring in and make use of the newest developments in communication tools.

Recommendation 18. Collect all baseline data and set up a performant, quantitative and qualitative M&E system to monitor all aspects of project implementation, including progress, deviation from initially-agreed upon planning, impact, etc. Develop a solid theory of change (TOC) with a firm and comprehensive set of evaluation criteria. Go beyond pure metrics and focus on the processes, successes and failures of the project, and the reasons why these occurred.

Recommendation 19. Test and refine the project-developed geospatial monitoring tool in other settings to validate and confirm specific use. If further developed, refined and confirmed, a geospatial, satellite imagery-based monitoring tool like the one tested under AAD could be a very valuable, highly performant and cheap M&E tool.

Recommendation 20. Guidelines for complex M&E. The FLR success drivers can be grouped into technical/biophysical drivers; socioeconomic drivers; institutional, policy and management drivers; and FLR project characteristics, and should be considered as guidelines in setting up an ad hoc M&E system.

Recommendation 21. Guarantee sustainability by building in specific, sustainability-focused mechanisms into interventions right from their conceptual phase. Secure (moral) ownership and buy-in from beneficiaries and build in sustainable financing mechanisms at all stakeholder levels. At the grassroot level, develop and provide training in elementary microfinance approaches, with a focus on local (in kind) resource mobilization for creating the solid financial basis that will allow for local-level, community-driven (co-)investment in the activities and hardware promoted by AAD and other such projects. Capacity building in, and for land restoration and reforestation interventions should have a stronger focus on the softer aspects of building partnerships and putting technical interventions on the ground.

1. Introduction

1.1 Purpose of the evaluation

- 1. Since 2007, all extra-budgetary work by the Food and Agriculture Organization of the United Nations (FAO) with a budget above USD 4 million must include a dedicated independent evaluation led by FAO's Office of evaluation (OED). The Action Against Desertification (AAD) total budget was over EUR 25.5 million (EUR 19.9 million from the Intra-ACP's tenth European Development Fund (EDF) and EUR 4.6 million from FAO) and implies that an independent, dedicated evaluation should be performed.
- 2. The purpose of this evaluation was twofold: appraising accountability, i.e. providing evidence on the utilization of the resources and the programme's achievements through the assessment of results, processes and performance of the implementing partners; and learning, by extracting important conclusions and lessons from the programme implementation to promote learning and knowledge sharing among the intended users as a basis for improved future decision-making on policies, strategies, programme management and process.

1.2 Scope and objectives of the evaluation

- 3. This evaluation covered the entire period of the AAD implementation (six years, from July 2014 to August 2020), and included the eight countries where AAD was implemented, namely: Burkina Faso, the Gambia, Ethiopia, the Niger, Nigeria and Senegal in Africa, plus Fiji and Haiti.
- 4. The evaluation assessed i) the alignment of the intervention to overarching global objectives, strategic objectives of the implementing organizations and objectives of the recipient governments; ii) the programme's relevance; iii) the achievement and sustainability of programme results; iv) the degree of achievement of long-term results (progress to impact); and v) whether efforts were efficient enough to achieve the planned outputs and outcomes. The evaluation provides conclusions and recommendations for the improvement of future similar initiatives.
- 5. The evaluation also paid attention to understanding contextual issues, outside the control of the implementation teams, globally and in the countries that may have contributed to, or hindered AAD implementation.
- 6. This evaluation was initiated in December 2019 and completed in September 2021 (see the Methods and Limitations sections for more details on the evaluation's timeline).

1.3 Intended users and audience of the evaluation

- 7. The main intended users of this evaluation are the i) FAO project task force; ii) European Union (donors); iii) recipient countries (collaborating governments, their line ministries and decentralized entities involved in the formulation and implementation of reforestation and land restoration strategies and policies); iv) the United Nations Convention to Combat Desertification and Drought (UNCCD) and the Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI) (as driving forces behind the regreening-Africa efforts); and v) other institutions active in the AAD countries, and the initiatives being implemented there.
- 8. The envisioned uses of the evaluation results include accountability, learning for future funding and implementation choices of similar initiatives, such as other European Union-funded programmes, the Green Climate Fund (GCF) and Global Environment Facility (GEF) projects, or

- funded by other donors (e.g. Boosting Restoration, Income, Development, Generating Ecosystem Services [BRIDGES], funded by Turkey), and informing sustainability of AAD results.
- 9. The results of this evaluation may be useful to inform other audiences, such as international organizations and initiatives that work in the fields of sustainably addressing desertification, land restoration and agriculture, including global-level entities and multilateral and bilateral donors that provide support, guidance and funding to implement GGWSSI-like work (e.g. UN agencies, investment banks, CGIAR) and academic organizations involved in research and development of studies, training and pilot initiatives with both (supranational) government actors but also, in some cases, directly with communities, development partners, non-governmental organizations (NGOs), and civil society involved in the sector.

1.4 Main evaluation questions

- 10. This evaluation concerned all domains addressed by the project; AAD uses a multisector, interdisciplinary approach, since not addressing/taking up one or several of the subcomponents would flaw the process conclusions and recommendations. A review of the themes is presented hereafter:
 - i. Approach/design Relevance and coherence: Was the AAD design appropriate to contribute to improving the conditions and productivity of the agrosilvopastoral landscapes affected by desertification/land degradation and drought (D/LDD) and/through South–South cooperation (SSC) in ACP countries?
 - ii. Results: outcome level Effectiveness: To what extent and how effectively has the project contributed to improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD, and South–South Cooperation among ACP countries?
 - iii. Results: output level Efficiency and coordination: To what extent were the management arrangements appropriate to efficiently deliver the project?
 - iv. Equity/gender: How have gender equality and human rights issues been addressed in project design and implementation?
 - v. Sustainability: To what extent are the results that have been achieved by the project sustainable?
 - vi. Progress towards impact: To what extent has AAD contributed to the overall goals to alleviate poverty, end hunger, and improve resilience to climate change in drylands and other fragile ecosystems in ACP countries?
- 11. These overarching questions were further specified in sub-questions, which are answered in this report. The evaluation matrix developed during the inception phase of this exercise contains all the questions, sub-questions and data-collection methods (Appendix 3).

1.5 Evaluation methods

12. The evaluation adheres to the United Nations Evaluation Group (UNEG) norms and standards and follows the FAO OED manual guidelines and practices. It adopted a consultative and transparent approach with both internal and external stakeholders. Evaluation team members ensured evaluation ethics at all stages of the evaluation exercise.

1.5.1 Data collection and analysis

- 13. Data sources: To respond to the above overarching questions, the evaluation relied on and collected primary and secondary information sources.
- Secondary sources: Documents include contribution agreements, cooperation agreements, progress reports, monitoring documents, technical studies and evaluations launched under the AAD project, national strategies and policies, international monitoring and reports to the GGWSSI and UNCCD, and FAO corporate policies and strategies. The key sources are listed in the Bibliography.
- 15. Primary data sources: The evaluation team interviewed over 300 informants in each of the eight AAD countries (77 in Burkina Faso, 18 in Ethiopia, 43 in the Gambia, 30 in Haiti, 26 in the Niger, more than 100 in Senegal, and an undefined number in Fiji and Nigeria). These included communities, farmers and their families, members of academia and research institutions, NGOs and community-based organizations, implementation partners at the local level (including government) as well as service providers. The evaluation team also interviewed members of the Secretariat of the African, Caribbean and Pacific Group of States (ACP: Brussels, Belgium), the African Union Commission (AUC: Addis Abeba, Ethiopia), the European Union (European Union delegation to the African Union: Addis Abeba, Ethiopia and the Directorate-General for International Partnerships of the European Commission [DEVCO]: Brussels, Belgium), the GGWSSI country representations and AAD task force members from FAO at global, regional and country levels, and UNCCD and European Union staff. The list of informants at global and regional levels, and FAO staff is in Appendix 1. The list of informants in each of the countries is included in each of the country reports.
- 16. *In vivo* observations of results of sustainable land management (SLM) and restoration activities, as well as livelihood activities, were performed during field visits in the eight respective countries.
- 17. Wherever possible, gender- and diversity-equality considerations were applied when selecting data collection sources. This was done with due consideration to, and respect of local contexts, and in consultation with the respective national AAD coordinators who have prime knowledge of local conditions. In some countries (Fiji, the Gambia, Haiti,) men, women and youths were interviewed separately, especially at community-based organizations and civil society organization levels.¹
- 18. Inception phase. The evaluation's inception phase included interviews with FAO's global project/coordination team and AAD country coordinators, in order to obtain an in-depth understanding of the evaluation focus. These, together with a preliminary documentation review, formed the basis for the inception report which detailed the team's understanding of the evaluation's terms of reference (TOR), the approach and methods of data collection, data collection tools, and the categories of respondents to be interviewed.
- 19. Field visits took place in all implementation countries (August–October 2020) for i) physical observations of results of SLM and restoration activities as well as livelihood activities; and ii) data collection through interviews with local stakeholders. Field visits were coordinated by AAD country

_

¹ These considerations are not clearly spelt out in most of the national reports, thus making it difficult to produce well-defined figures. In the last FAO Field Programme Management Information System(FMPIS) situation update (May 2021), indicators focusing on gender issues are few (i.e. two out of 31: Output 1 - Number of women able to plan and budget Income Generating Activities, and Activity 1.1 - Number of women part of regional training). Consequently, there is no distinct evidence to substantiate findings regarding the reduction of gender inequality.

coordinators with local partners supporting implementation. In preparation, all national consultants were briefed and received a field guide prepared by OED which included detailed instructions on what type of data to collect, how to sample, and a detailed interview script, among other contents.

- 20. Semi-structured interviews were conducted online and during field visits using a blend of closed and open-ended questions that ensured a link to the overarching evaluation questions, while giving the respondents the freedom to speak out on salient issues. In the locations where AAD was implemented, interviews were performed through so-called focus group discussions and individual interviews, complemented by direct observations. Respondents were chosen among the beneficiary groups' representatives. Overall, data were collected from direct beneficiaries (farmers associations, groups of breeders, foresters, women's associations, youth groups), local (municipal councils and community organizations) but also (inter)national authorities (coordinators of the Great Green Wall authorities) and operational partners (such as Reach Italia in Dori, Burkina Faso). In most cases, interview data were triangulated through transect walks for direct on-farm observation. See more details in the following Limitations section.
- 21. The evaluation team also used data and results generated by the geospatial, satellite imagery-based monitoring tool developed and tested by the project, and that provided data on i) land restoration surface areas prepared for planting, controlling whether the latter conformed to the initially agreed surface areas (with regard to details on service contracts with external/private providers); but also ii) the success/failure of seedling and plant development in restored plots.
- 22. Data analysis. The evaluation relied primarily on qualitative data that consequently yielded text-based data. Content analysis was the main approach used. Triangulation of evidence underpinned its validation and analysis to support conclusions and recommendations.

1.6 Limitations

- 23. This evaluation was entirely conducted during the COVID-19 global pandemic, which generated several specific challenges.
- 24. Travel restrictions. Starting February 2020, global travel restrictions were put in place following the spread of the pandemic. This resulted in the need to review the originally-planned evaluation approach.
- 25. Apart from field visits and interviews conducted by national consultants, all other interviews conducted in 2020 and 2021 were carried out remotely (online).
- 26. In addition, the core evaluation team members (two international consultants and an evaluation manager) were unable to visit the implementation sites as originally planned, resulting in the decision to conduct in-country data collection through country-based consultants. The pandemic eventually caused the initial evaluation work to be interrupted by October 2020, only to begin again in May 2021 (with another team leader). The evaluation adapted to these challenges by resuming the remote data collection phase, additionally contacting previous coordinators and/or interviewing other team members and increasing the focus on desk review and triangulation.
- 27. Connectivity challenges. International evaluation team members and most stakeholders interviewed (project coordinators, government partners and other stakeholders) were working from home during the entire evaluation. For interviews that were done online, this often meant having to discuss through poor or unstable internet connections; sometimes several attempts were necessary to complete interviews, whereas some had to be rescheduled, or even cancelled.

- 28. The concrete intervention scope of the project differed quite a lot between the six African countries where AAD operated with, and under the umbrella of the GGWSSI and the two island countries under the aegis of their UNCCD action plans. The evaluation scope therefore differed between both sets of countries, as will be clear from the report.
- 29. Site sampling. In most cases, sites visited for field data collection were chosen from the respective countries' lists of intervention sites provided by the respective national AAD-project coordinator teams. Implementation areas were purposefully selected considering i) representativeness of activities in the field; ii) ease of access; iii) possibilities to observe concrete results; and iv) possibilities to interact with/interview local stakeholders. For some countries, there was the additional catch of v) safety, which translates into physical security issues in Burkina Faso and the Niger, and globally into the coupled threat of COVID-19 and the concomitant lock-down measures. In Ethiopia, field visits were additionally hampered by desert locust outbreaks that distracted beneficiaries from participating in interviews.
- 30. The decision to collect data in the eight countries without direct supervision from the core evaluation team, under the limiting conditions presented above, also means that for the selection of informants, practical feasibility prevailed over (more scientifically) a guided/reasoned choice of a representative set of respondents.²
- 31. Finally, the characteristics of the monitoring and evaluation arrangements for the AAD project limited the collection of quantified data and, for certain issues, proper validation of field visit interviews and findings. This aspect is further detailed in the report.
- 32. Access to impact and other studies. A recent paper by Sacande *et al.* (2021), published after this report was prepared, provides socioeconomic impact data for the Niger, Nigeria and Senegal. The Evaluation Team did not have access to the results of this study before the draft of this evaluation report. The same can be said about other potential work published in late 2021 by the project team in partnership with researchers/universities or by independent parties. Therefore, they could not be used to triangulate with evaluation data.

_

² Some of the challenges faced were: in Fiji, visits eventually only took place at the Nasavu site (Bua province) because in the other sites that had been selected for interviews, respondents were either absent (Tiliva) or only one person was (willing to be) interviewed (Nawailevu); in both instances because of a conflict with agricultural field management activities). In the Gambia, the COVID-19 upsurge compelled the evaluation team used a mixed-bag [sic] approach, with most interviews being conducted through phone calls, including five focus group discussions conducted over the phone, with several limitations. The second approach was a rapid field trip to provide physical and first-hand appreciation of activities on the ground. Also in the Gambia, many AAD interventions were centered on schools that were closed due to COVID-19, so physical visits were not possible. In the Niger, field visit sites covered the same ones that had been selected for the MTR. In Nigeria, the evaluation covered five communities: group questionnaires were administered in the community association meeting point, where the chairperson of the association and community watch group gathered community members and the consultant administered the questionnaire prior to field visits.

2. Background and context of the AAD project

2.1 FAO's AAD mandate and contribution to the GGWSSI

- 33. Climate change-induced weather effects are difficult to predict; even within a same country there are differences in microclimates induced by these changes. For the Sahel Region, the most advanced climate change projections, released by the Climate Model Inter-comparison Project 5 (CMIP5)/Cordex Africa initiative (CORDEX, n.d.), show that total rainfall may decrease drastically by 2040 to 2070 in the west of the Sahel Region and may increase in the east. All over the Sahel Region, rainfall patterns are expected to be greatly disturbed (irregular rainfalls in time and space), having strong impacts on soil stability/degradation and land cover. Human population numbers, and the concomitant increased pressure on land for agriculture, but also for road and house construction, are expected to continue to increase in all AAD countries, whereas animal pressure from cattle should follow human population trends. Consequently, the challenges that were faced by the eight countries before project implementation started will not subside.³
- 34. Indeed, one of the world's drylands that is most affected by D/LDD is the so-called "Sahara and Sahel belt" across northern Africa, with the Sahel covering an area of approximatively 305 million hectares. Various initiatives that address the region's continuous degradation have been launched over the last decades, including the ones inspired by an old vision of regreening the area through SLM that would also improve livelihood opportunities for the local populations. The latter vision was finally translated into the GGWSSI, which was launched by CEN-SAD (Community of Sahel-Saharan States) heads of state in 2005. Since then, the GGWSSI has benefited from a high political commitment in and by the Sahel countries in cooperation with UNCCD institutions, FAO, other UN agencies, and several other bilateral and multilateral governmental and non-governmental donors and partners.
- 35. The AAD is an initiative of the ACP to restore drylands and degraded lands in Africa, the Caribbean and the Pacific to tackle the detrimental social, economic and environmental impact of land degradation and desertification. As such, it is a key partner of the GGWSSI, Africa's flagship programme to combat the effects of climate change and desertification across North Africa, the Sahel and the Horn of Africa.
- 36. The AAD initiative was launched in July 2014 and implemented by FAO and partners with funding from the European Union. The total project budget funded by the Intra-ACP's tenth EDF resources amounted to EUR 19 93 479, of which EUR 15 763 479 correspond to the African component, and EUR 4 167 000 to the Caribbean/ Pacific component. Beginning in 2015, FAO mobilized cofunding from 20 parallel projects implemented within the eight countries (including 13 projects in Africa and seven others in the Caribbean and the Pacific), for an amount totalling EUR 4 625 648, and expanded the project for an additional EUR 2 609 100 through the Government of Turkey for three other Great Green Wall (GGW) countries.
- 37. FAO's AAD supported local communities, governments and civil society in six African countries Burkina Faso, Ethiopia, the Gambia, the Niger, Nigeria and Senegal as well as in Fiji and Haiti to i) restore degraded land; and ii) manage fragile ecosystems in a sustainable way with the overall goal to iii) improve livelihoods through restored lands' (by-)products provision.

7

³ As evidenced by the 2021 IPCC report (IPCC, 2021) that emphasizes that climate change will be the main driver of land degradation and desertification in arid areas in the years to come.

- 38. The approach used a combination of the following activities:
 - i. large-scale restoration of degraded agrosilvopastoral production ecosystems by focusing on planting native, as opposed to exotic or introduced shrub, tree and herb species that are useful for restoring their environment and livelihoods (income generation);
 - ii. diversification of local communities' income-generating economic activities by fostering and reinforcing diverse sets of value chains of non-timber forest products (such as fodder, or gum arabic, Balanite fruits, etc.) with a direct link to restoration in order to incentivize reforestation, and stimulate job creation and income-generating opportunities, particularly for women and youths; and
 - iii. strengthening the capacities of individuals, communities and grassroot organizations in the sustainable management of restored degraded land.
- 39. In terms of more generic-concept issues, project organization and management aimed to address/promote:
 - i. development and testing of low-cost, high-performing monitoring and evaluation (M&E) tools to track progress made by the project and measure its bio-physical and socioeconomic impacts to make these available to other, similar initiatives.⁴
 - ii. knowledge exchange and raising awareness about the causes of land degradation and desertification, and the most-adequate strategies to address, combat and prevent them.
- 40. Over the years, AAD expanded its reach and number of countries involved, adding Eritrea, Mauritania and Sudan to its set of focal countries (the add-ons were termed AAD-BRIDGES; see map), whereas of late, FAO's initial scope for AAD-like interventions was expanded to be duplicated through AUC's initiative towards southern Africa's drylands. These other initiatives and countries were not covered in this evaluation.

Figure 1. Iterative AAD map (situation early 2021)



Note: This evaluation only covers the implementation of AAD in EU/ACP-funded countries, represented in green. Source: FAO. n.d.a. Action Against Desertification. In: FAO [online]. Rome. http://www.fao.org/in-action/action-against-desertification/en/. Map conforms with UN. 2020. Map No. 4170, Rev. 19.

-

⁴ These aspects will be addressed more in detail in section 2.4, as these crucial actions were only partially implemented during the lifetime of the project.

2.2 Summary of activities undertaken in each of the eight AAD countries

- 41. The content below provides an overview of activities implemented by AAD in the eight countries where the project was executed. Most of this content relies heavily on, and is directly extracted from, the project's two terminal reports, and figures are given as such, *fide* the respective consultants. Where relevant, for comparison purposes, data at the mid-term review (MTR) point of implementation is also included here. Data independently collected as part of this evaluation is indicated as such.
- 42. Data on non-timber forest products (NTFPs) performance are only rarely collected, and when they are, the data are often incomplete. Challenges to NTFP commercialization are well known, and NTFP value chain development is complex, involving different dynamics. Given the different species promoted by the project, it would have been difficult to monitor the different NTFP performances, particularly when trying to capture marketed volumes or applied unit prices. Monitoring would need to be tailored to each species, which is time-consuming and often not realistic. Therefore, compromises had to be made when reporting on NTFP activities and success, as this was not the sole/prime focus of the project. The figures provided in the terminal reports here are presented as such and should be considered with the caveat phrased here.

2.2.1 Capacity development activities

- 43. In Burkina Faso, most capacity development activities addressed restoration and plantation/planting issues. The others targeted M&E, market analysis and development, and NTFPs. More in detail, it was learned during field interviews that the themes developed during training and awareness sessions focused on good practices in water and soil conservation, land/soil protection (mise en défens) and restoration (Conservation des eaux et des sols/Défense et restauration des sols [CES/DRS]), and the valuation of NTFPs. More specifically, these included: techniques for carrying out assisted natural regeneration (ANR); restoration and direct seeding; techniques for making zaï, half-moon and grass strips; techniques for making stone bunds; compost production techniques; organization and management of community ploughing sites; participatory self-assessment of sustainable land management actions; tree nursery management; soap making and beekeeping. All these activities reached a total of 20 655 beneficiaries, 40 percent of whom were women.
- 44. Twelve training sessions and workshops were organized in Ethiopia, reaching a total of 478 beneficiaries. Many of these activities were on restoration and plantation, with others focusing on market analysis and development, and NTFPs. Beneficiaries interviewed in September 2020 reported that one of the main reasons for changes and improvement in their livelihoods was capacity development. They highly appreciated the specific themes on which they had been trained: home garden and agroforestry management for women; soil and water restoration techniques for development agents and "technical leaders"; plantations and their management practices for district leaders, development agents and village technical leaders; and development of bylaws for village council members and leaders.
- 45. In the Gambia, 1 083 persons (44 percent of whom were women) were reached through 31 training sessions and workshops. Most of these activities focused on restoration and plantation activities, but also on handicrafts, beekeeping and nursery management, whereas others centred on communication. Live participation in sessions was facilitated through the provision of bicycles to communities.
- 46. Six training sessions and workshops were organized for 469 beneficiaries in the Niger. Half of these activities concentrated on restoration and plantation, while the others focused on assessing

capacities. This included identification of the best places to collect seeds (target training group: mixed groups of men and women); optimal seed collection period and seed collection techniques (mixed groups); nursery seedling production techniques (mixed groups); land restoration techniques (mixed groups); beekeeping (mixed groups); processing of NTFPs – *Balanites aegyptiaca* and *Moringa oleifera* – (women); administration and promotion of value chain products, management of groups and entrepreneurship (mixed groups); analysis and development of marketing strategies for herbaceous and woody seed markets (mixed groups); market studies (mixed groups); and forecast investment ([*sic*], mixed groups).

- 47. Seventeen training sessions and workshops were conducted for 367 beneficiaries in Nigeria. Half of these activities focused on restoration and planting, while the other half focused on M&E and capacity assessment.
- 48. In Senegal, fifteen training sessions and workshops were held. Certain activities at these events, e.g. oil-extraction techniques and soap-making with Balanite oil, were designed specifically for women. More than 297 beneficiaries were reached. Nearly half of the capacity-development activities focused on market analysis and development, and NTFPs. Capacity assessments, restoration and plantation were also covered in other activities. Capacity building for women included processing techniques/conservation of NTFPs, agricultural and dairy products; financial management and organizational issues; and market gardening and techniques for production of seedlings in nurseries. Some 250 young people from four primary schools in villages located around the Community Nature Reserve of Khoily Alpha, received environmental education and training on restoration techniques. Community Nature Reserve guards (ten men) received training in wildlife and tourism management (reception and handling of tourists), and management and feeding of animal species (that were extinct from the area) to be re-introduced into the Community Nature Reserve.
- 49. A total of 46 workshops and training sessions were conducted through farmer field schools (FFSs) in Haiti. Nearly all of these events focused on restoration and plantation. They benefited 9 590 people. In Haiti, capacity building activities centred on the *Université Nouvelle Grand'Anse* (University of the Nouvelle Grand Anse [UNOGA]) to improve scientific background for plant specimen collection, floristic inventory, and training on ethnobotanical techniques to collect information on medicinal plant use. In nursery management, local capacity was created by training young people in the field. The same is true of soil conservation and agroforestry.
- 50. In Fiji, 6 265 farmers and 100 government staff members benefited from 32 training sessions and workshops on M&E, restoration and plantation, and income generation. Beneficiaries in Fiji interviewed by the 2020 evaluation team highly appreciated the capacity building they received on seed collection, nursery operation, tree planting, vegetable growing and beekeeping (the latter being complemented by the provision of the necessary equipment which allowed them to start the beekeeping operation). Several members of institutional partners added that collecting socioeconomic baseline data had helped them to better understand the current situation in the field, and strengthen their relationships with beneficiaries and local/regional governments.
- 51. Table 1, extracted from the terminal reports, synthesizes the figures on training thematics in the different project countries, including training for beneficiaries and AAD teams in the eight countries, FAO headquarters and regional offices. These focused on budgeting, and financial and institutional reporting.

Table 1. Summary of training sessions, capacity development, beneficiaries, and the AAD team in numbers

	Number		Topics				
Result 1	of training sessions	Number of beneficiaries	Capacity assessment	Monitoring and evaluation	Market and NTFP	Restoration/ planting	AAD team
Burkina Faso	127	20 655	1	2	4	120	7
Ethiopia	12	478	2	2	1	7	4
Gambia	31	1 083	2	0	19	9	9
Niger	6	469	3	0	0	6	5
Nigeria	17	367	9	1	4	3	4
Senegal	15	297	5	2	6	7	10
Fiji	32	6 265	17	10	15	19	7
Haiti	46	9 590	1	2	3	40	8
Headquarters and regional offices	43	908	19	8	5	11	10
TOTAL	329	40 112	59	27	57	222	64

Source: FAO. 2021. Terminal report of the AAD Project. (internal document)

2.2.2 Land restoration and reforestation/planting activities

- 52. The overall figures for land restoration and reforestation/planting are summarized in Table 2, extracted from AAD's two terminal reports. Progress over the last years, as opposed to the situation at MTR, is presented and discussed by comparing MTR figures for Ethiopia, Haiti and Fiji with those in Table 2, and overall project performance presented and discussed for the other countries based on terminal reports data. Data extracted from AAD's terminal reports are presented as informed in the original documents, since the scope and limitations of this evaluation did not allow for thorough data triangulation.
- 53. Overall, the main SLM and forest restoration technologies propelled by the project (which were also widely appreciated and adopted by most, according to testimonies of beneficiaries at all community levels when field-interviewed by the evaluation team) were:
 - i. an increase in enrichment tree planting to restore degraded forest areas;
 - ii. the mechanization of soil preparation and restoration operations with the Delfino plough (in Burkina Faso/the Niger and Nigeria/Senegal);
 - iii. the reduction or even elimination of indiscriminate and unsustainable tree felling;
 - iv. the sustainable and judicious use of shared forest resources (apiculture and animal grazing); and
 - v. support training of communities and provision of firefighting materials in the creation of fire belts to curb forest fires.
- 54. Both "reduction of tree felling" and "fire belting" were expressly highlighted in the Gambia where they were mentioned to have had a very positive impact on natural forest stands and planted tree survival, respectively.

- 55. Furthermore, data collected by the evaluation team indicates that all target communities adopted to varying degrees, and with differences between countries/regions the SLM and restoration techniques proposed to them by the AAD project. The latter comprise:
 - i. seed collection (all countries);
 - ii. seed sorting (the Niger);
 - iii. direct seeding (most countries);
 - iv. increased tree planting through forest enrichment planting of fast-growing and indigenous forest trees to restore forest flora and fauna (the Gambia, Haiti);
 - v. the creation of fire belts to prevent forest fires (the Gambia); and
 - vi. beekeeping activities to restore, enrich and maintain biodiversity (all countries).
- 56. Specific techniques that were additionally presented to beneficiaries and implemented by the project were scarification (scratching, presumably of seeds, but not specified in the report), direct seeding combined with planting of seedlings, zaï and crescent-shaped stone bunds, ANR and mowing, together with an agropastoral field school (Burkina Faso, evaluation field interview information: however, local respondents added that these techniques were few or not put into practice by beneficiary communities for lack of "adequate material, and the rather high cost of carrying out these techniques"), soil bunds, terraces, "normal" and deep trenches, reshaped gully technique and stone check dams (Ethiopia), and slope stabilization through contour planting of Vetiver grass and pineapple (Fiji).
- 57. In what follows, most figures are taken from the AAD's terminal reports (and in some cases complemented with, and compared to, MTR findings).
- In Ethiopia, at mid-term review (two years before completion) only 41 hectares of degraded land had been restored, and an additional 110 hectares of land planted with different tree species, whereas 50 hectares had received some agroforestry interventions; and 680 000 seedlings had been produced and planted. The terminal report presents much higher figures for Ethiopia, which would indicate that reforestation and land restoration got stepped up over the last two years of project intervention: overall, 3 251 hectares were restored through natural regeneration, plantation and water conservation. Among the 2 313 people who benefited, 32 percent were women. SLM was implemented on 199 hectares. The terminal report informs that plantation used 510 kg of seeds and 2 442 002 seedlings of ten woody species for land restoration, and 8 820 seedlings of agroforestry species that specifically target income generation (fruit trees) and wood/timber for energy, construction, etc. (timber species). Three NTFPs were also specifically developed: gum arabic, lowland fruits and honey.
- 59. Local community awareness on the need for, and possibilities offered by, restoration, sustainable land use and management have grown with time in Ethiopia as reported by informants for this evaluation. In general, most beneficiaries are now aware of land and forest management practices. In intervention preparation, plans are prepared in a participatory way, starting from the communities' representatives with the support of village development agents. Improved practices concern tree pruning and thinning, better-targeted manure application and watering of transplanted seedlings, protecting rehabilitated plots, whereas deep trenches and half-moon-shaped bunds complement initial land preparation.
- 60. The use of energy-saving stoves and improved/selected ecotypes of interesting tree species complement the base package of the project. The points of attention remain full application by all stakeholders who are concerned with bylaws that were developed by the local communities for protection and utilization of the restored watersheds. In addition, there are still some

limitations regarding close monitoring and follow-ups of project activities by beneficiaries' and community leaders.

- 61. Leaders reported that the beneficiaries for land restoration activities in Ethiopia were selected as 50 percent women, 30 percent youths and 20 percent local farmers. In the words of our informants, this addressed the gender issue in Ethiopia's project design and implementation. After project implementation, the participation of youths and women in livelihood activities was shown to have increased. Moreover, the project's method for selecting beneficiaries had visible results in restoration activities, through increased involvement of stakeholders in local cooperatives: for example, two youth cooperatives engaging in sheep fattening and fruit production were established within the restored watershed.
- 62. In Haiti, 300 hectares of agrosilvopastoral systems had been restored (a success rate of 90 percent as estimated by AAD) at MTR. Additionally, 60 hectares of demonstration plots of commercial forest-tree plantations, including *Cassia* spp., *Acacia mangium*, cashew and cedar trees (2500 plants per ha) had also been planted, together with eight hectares of woodlots for wood fuel and charcoal production (an estimated 90 percent success rate), whereas 210 hectares had received soil conservation interventions combined with tree plantings (same success rate). Here again, the last intervention years added a substantial surface area, so that eventually more than five million seedlings were planted, and 11 645 hectares of land got restored.
- 63. At the start of the interventions in Haiti, "contour canals", straw ramps and trees planted at a distance of four to five metres apart were put into place for erosion control. The evaluation respondents estimate that 20 percent of farmers in the target zones have adopted contour canals and straw ramps. Nursery seedling production and tree planting, however, were shown to be less attractive to, and adopted by villagers, presumably because of the latter's greater interest in planting cocoa for income generation. Eroded lands became productive again through a gradual adoption of project-proposed techniques. For other beneficiaries, the effect of applying these techniques to other plots was not that obvious: to see the effect of trees, it was mentioned that one would have to wait longer. Beekeeping, together with cocoa growing, is seen as a ready source of income. One of the key benefits of beekeeping indeed is its low-input, quick-return nature that allows for bringing income in the short term, thus helping to tide over for the period needed for reforestation-planted trees to mature and yield NTFPs. Interviewees referred to a solidarity fund that financed both investments and training sessions:
- 64. 4500 vulnerable households, 56 percent of which directly concerned women from the intervention area, benefited from seeds of maize, beans, wild peas, congo peas, sweet potatoes, cassava and yams;
- 65. 300 artisanal seed producers from 20 artisanal seed production groups (*Groupements de production artisanale de semence GPAS*) were trained in good cultivation practices and supported in seed production to improve access to quality seeds;
- 66. support for 60 beekeepers in order to strengthen the beekeeping sector as, according to the project coordinator and beneficiary surveys, it would appear that the potential income of the 60 beekeepers could amount to approximately HTG 72 660 000 (USD 816 334) per year.
- 67. For Fiji, the MTR had highlighted too many scattered project sites and the related thin spread of limited resources. Delay in implementation allowed for reviewing usefulness of some of the initial sites, reducing them to a few that could be effectively managed (implemented together with the Ministry of Forestry's reforestation projects) during the no-cost extension, and have them receive all the adequate support needed. As per the terminal report, 1133 hectares of degraded land were

manually restored in 35 sites in Fiji. The NTFPs supported here were beehives for honey, ornamental flowers, vanilla and sandalwood. The evaluation respondents confirmed that "cooperation between community members had improved, whereas they were implementing monthly plans which, for the first time, incorporate tree planting activities (i.e. they have now allocated one day a week for tree planting and maintenance)." The only tree species planted was sandalwood, illustrating that what is planted is often a compromise between what makes "ecological sense" and "socioeconomic sense" (FAO, 2020). However, from all these field discussions and interviews it looks like the only species of interest is sandalwood (because of its high commercial value) – it would therefore seem that the latter is planted for restoration of socioeconomic benefits more than environmental ones.

- 68. In Burkina Faso, 15 137 hectares of previously degraded land was restored through land preparation and subsequent planting through direct sowing and seedlings. According to the terminal report, these activities benefited 14 789 people, 47 percent of them being women. The SLM practices were implemented on 2 376 hectares of land. Nearly 20 000 kg of seeds and 761 683 seedlings of woody and herbaceous species were directly sowed or planted. The production/development of five NTFP value chains was supported, and related market analyses and development activities were carried out. Thanks to these efforts, the processing and selling of five NTFPs generated a total of USD 31 720 for 500 beneficiaries, 36 percent of whom were women. These products comprised Balanites oil, fodder, forest seeds, honey and edible fruits.
- 69. Still in Burkina Faso and at the level of replanted site management and protection, 2020 field interviews showed that "access to sites is subject to authorization from the management committee (COGES), whereas there is a system of fines for trespassers on certain sites. The populations have improved their techniques of mowing and conservation of fodder. Tree cutting is accompanied by good ANR practices [sic]. Where necessary/useful, additional stone lines can help harvest rainwater. The synergy of actions between operational and technical partners has been strengthened, whereas the systematic association of beneficiary populations throughout the implementation process is seen as a factor of success".
- 70. The terminal report highlights that in the Gambia, 4 269 hectares of community forests were planted. A total of 27 736 seedlings were produced and planted by local communities, also in school gardens. Edible forest fruits and nuts, handicrafts and honey were developed as NTFPs. Beekeeping activities saw a high level of involvement, with the participation of a total of 888 beneficiaries. In addition, 900 improved stoves were produced and distributed to local villages. These stoves save wood and protect the health of users. Beneficiaries reported to evaluation that they appreciate the "added element of shared forest resource use (cattle grazing) and see themselves as better-equipped to effectively plan and manage forest and land resources for improved soil and forest fertility."
- 71. In the Niger, 16 147 hectares were restored. A total of 57 615 kg of seeds were collected and 45 080 seedlings were produced. Five woody and five herbaceous fodder species were planted by direct sowing and seedlings. The total number of beneficiaries reached was 27 540, with 52 percent being women. Income-generating activities focused on seven NTFPs: Balanite oil, gum arabic, fodder, forest seeds, nursery seedlings, honey, and baobab and "gao" (Faidherbia albida) tree fruits and leaves. An estimated USD 21 967 was generated from these products (terminal report data).
- 72. In Nigeria, roughly 4 266 hectares were mechanically and manually restored in the targeted states. In addition to 21 004 kg of seeds and 291 000 seedlings being planted (by direct sowing and seedlings), approximately 1175 kg of vegetable seeds were also provided for microgardens. These

efforts benefited 21 662 people (26 percent women). NTFPs developed for income generation in Nigeria were Balanite oil, gum arabic, fodder and honey. In addition, community nurseries and microgardens were established. These efforts combined benefited approximately 1 400 people (terminal report data). Beneficiaries reported to the evaluation team that they are now "harvesting more millet, cowpea, sesame and sorghum, whereas they understand better how soil fertility can be improved, and how farmer-managed natural tree regeneration and use of modern technology in restoration of degraded forest grazing areas can be improved."

In Senegal, 7 876 hectares of degraded land were restored over the course of the project through a combination of mechanized and manual restoration. More than 1 000 people benefited from these efforts, with 50 percent being women. Fifteen species were planted from direct sowing of 4 215 kg of seeds and planting of 1 178 691 seedlings. Fodder, seedlings and the establishment of a fenced communal nature reserve were the emphasized NTFPs' income-generating activities in Senegal. In addition, 20 land turtles and 11 Sahelo-Saharan antelopes were reintroduced into the Koyli-Alpha Natural Reserve through a partnership with *Nature Tropicale Sénégal* (terminal report data), but beneficiaries (evaluation interviews) also "noticed the return of such wildlife species as jackals, monkey and reptiles; soils that were once bare are now increasingly covered in grasses and herbs such as *Aristida funiculata* and *Indigofera aspera*." A management committee was established, and training was provided for community technicians on the management of the animals that were reintroduced in the natural reserve. Thanks to these activities, a total of USD 9956 was generated for beneficiaries (terminal report data).

Table 2. Summary of seeds, seedlings, hectarages of planted areas, NTFPs developed, and income generated with beneficiary communities of the project, including women (42 percent)

Result 2	Seeds (kg)	Seedlings (numbers)	Degraded land prepared and planted (ha)	Number of NTFPs developed	Income generated by NTFPs (in USD)	Number of direct beneficiaries	Proportion of women (%)
Burkina Faso	19 642	761 683	15 137	5	31 720	14 789	47
Ethiopia	510	2 442 002	3 251	3	500	2 313	32
Gambia	29	27 736	4 308	3	7 779	13 832	47
Niger	57 615	45 080	16 147	7	21 967	27 540	52
Nigeria	21 004	291 000	4 266	6	593	21 662	26
Senegal	4 215	1 178 691	7 876	4	9 956	1 070	50
Haiti	10 000	5 161 657	11 645	3	28 808	12 868	30
Fiji	8 000	1 006 720	1 133	4	29 652	3 360	47
TOTAL	121 015	10 914 569	63 763	16	130 975	97 434	42%

Source: FAO. 2021. Terminal report of the AAD Project. (internal document)

2.3 AAD's theory of change

74. At the time of concept formulation, the project document did not yet comprise the notion of "theory of change" (TOC), now defined as "a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context." Based on the initial project document, the evaluation team reconstructed the AAD project's TOC presented in

Appendix Figure 1 and Appendix Figure 2, which also identify the focal areas of this evaluation. The complete narrative of AAD's TOC can be consulted in Appendix 4.

2.4 AAD's monitoring and evaluation system

2.4.1 AAD M&E system⁵

- 75. In 2018, that is four years after the project had started, AAD officially published *Biophysical and socioeconomic baselines. The starting point for AAD* (Sacande *et al.*, 2018), i.e. "a series of socioeconomic and environment" baseline assessments [...] carried out in each of the project's countries to establish a reference against which to monitor changes and project impacts, as well as better target project activities and inform other stakeholders and restoration initiatives in the eight countries. To do this, biophysical data were collected using Collect Earth, a tool developed by FAO. Socio-economic data focusing on five "capitals" of the Sustainable Livelihoods Framework (human, social, natural, physical and financial capital) were obtained from household surveys carried out in sample sets of households and villages in the intervention areas. Raw field baseline data were collected in 2015, but analysis and thorough interpretation of results were only formally published and shared three years later, in line with FAO's publishing procedures and timeline. Until then, baseline data and information from the respective project countries were reported, analysed and used by international project management (and some specific country management units) as they were compiled.
- 76. Although the project arguably tried to develop its own M&E tool during inception, informants reported that no clear, standard field survey-based and continuously used M&E procedure was available on time/right after inception to the respective country representatives of the project. Hence, to date, no comprehensive M&E database is available, and it is not clear how the five "capitals" have evolved during and as a result of project intervention.⁶ At best, a number of project countries tried to collect "some" data, yielding only a piecemeal and incomplete insight into what happened in the project during its implementation. Until the completion of this evaluation (over one year after project closure), no well-defined quantitative end-evaluation document was available that would have provided a factual and numerical basis for result and progress-to-impact appreciation. The geospatial study conducted as part of this evaluation provides hard data on progress on impact (Annex I). The lesson learned here might be that a much larger portion of budget should be dedicated to put into place and subsequently use a well-performing M&E system that is in line with FAO's (and international agencies') statistical standards.
- 77. At the onset of AAD's activities, the lack of well-framed and well-implemented baseline surveys together with the absence of a rigorous M&E framework, resulted in a lack of hard/quantitative data that would have allowed for i) monitoring AAD's progress on interventions and eventually the impact on addressing land degradation; ii) following concrete hectareages of land replanted for re-greening and the survival rate of trees/shrubs/fodder grass planted or; iii) the success of the income-generation activities (in terms of increases in income, number of individuals/groups reached..), to just name a few. Due to these limitations, reporting was mostly qualitative and based on perceptions, and thus open to subjective appreciation.

16

⁵ See also the response to E.Q. 3.3.

⁶ A recent paper by Sacandé *et al.* (2021), published after this report was prepared, provides socioeconomic impact data for Nigeria, the Niger and Senegal.

⁷ The M&E parameters used derive from the project's logframe that is analyzed further down. The latter's weaknesses may explain the lack of more relevant parameters (such as "seedling survival rate") that would have monitored and evidence "true" project impact.

- 78. The M&E system was weak in its initial conception, and subsequent elaboration and overall design. It also missed out on a number of essential indicators that should have been derived from the project document's assumptions and orientation. As it is, there was hardly any focus on monitoring the participation and involvement of vulnerable groups (women, youths and disabled) in project implementation, at all stakeholder levels. A more detailed assessment of the project's logframe and capacity-building design and implementation, also regarding gender and vulnerable groups, is presented further in this document.
- 79. Where the project's M&E system was operational, it had limitations: lack of details for the indicators (32 criteria captured in FAO's Field Programme Management Information System [FPMIS]); no baseline at project start; and heterogeneity in data collection methods: different procedures between countries, and mix of activity indicators and result indicators, etc. Even the values of what would seem to be basic indicators (such as surface of restored land) are questionable, for lack of uniform definitions (How are surfaces defined? Is a restored surface area a planted area or a successfully planted area, and how do you measure success?) and methodologies. Not only did these weaknesses of the M&E system have a repercussion on project management, but they also affected the substantiation of this evaluation's judgments. Also, the involvement of stakeholders has been limited due to the shortcomings in the M&E system, which could jeopardize the project's sustainability. The efficiency and sustainability sections of this report further elaborate on these topics.

2.4.2 AAD Geospatial monitoring⁸

- 80. What the project did develop and provide is an innovative "monitoring system using georeferences (polygons) and remote sensing imagery" to "enable continuous, objective, transparent (and) systematic observation of all lands under restoration in the intervention areas." This technique allows for comparing actual prepared land surface areas to what the service provider who did the ploughing/land preparation claimed to have prepared. In a number of cases (the overall order of magnitude is in the range of 33 percent), the project was able to correct and adjust the claimed areas and perimeters, to their "true" proportions.
- 81. Similarly, the technique should allow for monitoring from a distance, and through remote sensing imagery, planting success in both absolute (i.e. surface area of prepared and planted/sown plots successfully populated with green vegetation consisting of growing perennials and grasses/herbs) and relative (i.e. the difference in vegetation cover evolution between AAD-planted plots, and similar-aspect plots nearby) terms.
- 82. This evaluation's geospatial study (Annex I) confirmed the validity of the technique that "estimated the change in gross primary productivity (GPP) of each AAD implementation zone for every year, starting the year before project implementation (baseline) through the most recent full year available (2019). To facilitate robustness checks, two proxy indicators of GPP measured from satellite data were used: the Normalized Difference Vegetation Index (NDVI) and the Enhanced Vegetation Index (EVI), although it should be added that the approach still needs to be refined and improved, especially in light of the mixed results obtained with other, similar tools.¹⁰

⁸ Results on its use were shared in international conferences (e.g. the eighth World Conference on Ecological Restoration Cape Town, 22–27 September 2019), whereas scientific papers on its usefulness and efficacy are under preparation.

⁹ See Annex I of this report. "Quasi-experimental satellite evidence of the impacts".

¹⁰ For a recent discussion, see Sacande et al., 2021.

- 83. Indeed, land use, land-use change, and forestry (LULUCF) monitoring using satellite imagery has for sure greatly improved over the last decade, but adequately monitoring land use change (at scales of less than/equal to one hectare, differentiating the major land use classes shrubs, forest, perennial and annual crops with at least 80 percent accuracy) still remains out of reach for most countries, especially in arid areas. Moreover, satellite monitoring of the growth of 10–50 cm-high seedlings (size of plantlets one- to three-years-old), is still impossible, and can only be done through field observations. In all cases, remote sensing should be accompanied by field work (preclassification *ex ante* and ground truthing *ex post*), and this was clearly not done by AAD.
- 84. The use of satellite imagery and the development of this monitoring tool by the project, brought in the possibility to follow up upon yet another parameter that was not necessarily defined at the beginning of the project but could, if properly monitored, allow or have allowed for appreciating AAD's restoration impact, as it could help to measure/follow carbon sequestration by the developing vegetation/plantations. However, also here there would be a need to further improve and fine-tune the tool's performance, as a lot of field work is needed at two levels to i) prepare and validate satellite data (*ex ante* pre-classification and *ex post* ground-truthing); and ii) collect in a systematic manner statistical data on forest stands (main species, diameter at breast height, etc.) allowing for an accurate estimation of both above- and underground carbon pools.
- 85. In conclusion, geospatial imagery is/can be a useful tool to monitor restoration/reforestation success but in this case publishing of the geospatial survey a few months before closing the project hardly helped to identify what had been done and what the project had or had not achieved.

2.4.3 Institutional project settings

- 86. All stakeholders involved are in unison in confirming that AAD was managed centrally by a very committed, dedicated, open and very motivated, albeit small team at FAO headquarters, that also went beyond reporting obligations and what was expected by donors and the respective regional and national institutions, whereas it also had to deal with two project documents/contracts and two donors (AUC and the European Union), and thus two lines of reporting for both financial and content matters. The centralized approach, however, has had several implications for the day-today functioning of the project. For example, it implied that - even though national counterparts were charged with day-to-day affairs and could spend money up to a certain level of expenditure - many of the decisions linked to the choice and planning of interventions and disbursements had to avail of the international coordination office. For lack of familiarity with procedures at most stakeholder levels in the intervention countries, disbursement requests were sometimes sent back several times before any decision was made. Although it is acknowledged that this would prevent possible misuse of funds, it unnecessarily slowed down overall implementation and disbursement, for example acquisition of a Delfino plough (the Nigeria/Senegal), and financing of PR materials (Senegal). It also explains why some activities were not implemented on time or according to the initial plan or expectations. Additionally, problems with initiating and/or timely delivery of activities due to conflicting or limiting (as opposed to enabling) organizational and personal management formats and styles were also reported.
- 87. At respective national levels, project management units (PMUs) were (and usually are) built with persons coming from ministries or other official/(para-)governmental organizations. There is, however, often a disconnect between these urban-based professionals and local-community levels, thus lowering effectiveness of management to deliver. At the lower end of the management scale, local-community management organizations should build on, start from and strengthen existing structures/(in)formal groups, which the project basically did, albeit not always recognizing, or using local leaders/champions). At the project (pre-)design phase, both problems

- and solutions should have been identified, discussed, and have been complemented by an inventory of the local/traditional institutions that could have contributed to project effectiveness. The latter, however, was hardly addressed.
- 88. Whereas the key for a successful project (implementation, and later sustainable continuation beyond project duration) lies in the creation and building of strong leadership at national and local institutional levels, and at the technical-execution level, this aspect was hardly addressed.
- 89. Right from the beginning, the project proposal and implementation approach were not open for amendments: "some partners were not part of initial programme development" [sic]. There was no participatory, inclusive management and accordingly, interviewees heard by the evaluation perceived lack of transparency in decision-making and expenditures. AAD's centralized, top-heavy project coordination model (in combination with weak PMUs) oftentimes conflicted with timely delivery of funds and equipment, and this explains why in some countries activities lagged behind schedule and eventual physical reforestation results remained below target.
- 90. Monitoring by the European Commission was split between Brussels and Ethiopia, which added to the administrative slowness and burden. FAO's system of lengthy administrative procedures and the lack of a decentralized decision-making authority/lack of subsidiarity also contributed to the picture, given that this was an international/global project, encompassing different FAO regions in three continents. In addition, many project partners at different levels each have their own institutional, administrative, and reporting formats and expectations, and the result was an institutional *imbroglio* that was difficult to manage and often slowed down implementation. In a way, the institutional set-up was reflecting the complexity, but also the artificial nature of the triangulation between the European Commission (EC), FAO and AUC. Several interviewed stakeholders manifested discontentment with the management of the coordination among these actors along with FAO.
- 91. This being said, AAD was eventually able to deliver the contractual expectations, albeit at a slower pace than initially planned and with some hiccups that clearly should be addressed in subsequent efforts/similar projects but at least it did not affect the good relations between partners. Where the project involved beneficiaries and sought multiple-stakeholder support for all its activities, it could have done better in keeping those actors informed, involved and co-responsible for all decisions and interventions.

3. Key findings – answers to evaluation questions

3.1 Design, alignment and relevance

Evaluation question 1. Was the AAD design appropriate to contribute to improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD and/through South—South cooperation in ACP countries?

Evaluation question 1.7. To what extent were the lessons learned from other initiatives used for project design? And were they relevant?

Finding 1. AAD's design and approach took inspiration from similar initiatives mainly from Africa. This resulted in a large-scale, heavy-machinery-based technical intervention logic that can be considered appropriate for addressing D/LDD in specific conditions and with the right socioeconomic accompanying measures. The project is considered by most if not all institutional stakeholders to be strong and technically well-designed at each level for ultimately improving community livelihoods. However, alternative approaches, such as ANR, should also have been considered in the intervention mix, with greater emphasis on such socioeconomic issues as ownership and financial sustainability. South–South Cooperation should have been better elaborated, whereas the project duration (55 months) was also considered to be too short.

- 92. As already highlighted in the MTR and confirmed during the evaluation (see section 2.2 Summary of activities), AAD's design and approach were considered by most stakeholders to be in line with and respond to the problems that were considered/planned to be addressed by the project. They were also deemed highly suitable and relevant to the goals and objectives of the agencies involved and the targeted beneficiary communities, and to be an appropriate way of improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD. Even though the lack of adequate institutional arrangements was criticized by several, the project was/is considered by most if not all institutional stakeholders to be strong and technically well-designed at each level for ultimately improving community livelihoods. Overall, the intervention model was judged to have had its flaws but given the respective institutional dynamics (and limitations) of FAO, EC and AUC, it is considered to have delivered well.
- 93. Positive aspects include: the integrated approach at the institutional level when it comes to having government line ministries, service providers and NGOs collaborate in the field in support of communities and community-based organizations; and undertaking capacity assessments to ensure that the partners involved have the necessary capabilities to effectively implement their designated activities and seek support from others for filling gaps. The element of South–South Cooperation, however, was considered to be less well developed (see below).
- 94. Informants reported that the project drew on a number of lessons learned from other (mainly FAO-run) projects and initiatives, mostly from Africa, and can thus be seen to be the combined result of a number of useful and relevant insights that evolved with time (Berrahmouni *et al.*, 2016). However, these are not necessarily cited or referenced in the project's initial documents. The latter's (biased?) focus was mainly on the use of large-scale, mechanized technology to prepare soils for rainwater collection and storage, and subsequent planting of trees/shrubs and

herbs/grasses.¹¹ It failed, however, to critically assess the pros and cons of alternative techniques (such as ANR or more simple soil scarification), and this can be deplored, as several studies had pointed out a number of limitations of the Vallerani plough (and thus use of Delfino plough). This has been taken into consideration by AAD and the mechanized plough was used in some specific contexts but not in all contexts.

- 95. AAD's design as a global initiative which related to the conditionality of the funding had a number of flaws, as it was spread rather thinly over three continents (and eight countries) with a strategy that clearly took inspiration and derived from the GGWSSI and FAO's past experiences with technically addressing land restoration. The global design was connected to the conditionality of funding. In some African countries, the project built on an infrastructure that had been put up by the GGWSSI (e.g., Senegal where some abandoned or neglected plots were revamped by the project) or used national GGW authorities as institutional hubs responsible for project implementation, while also a number of organizational aspects inspired AAD's set-up.
- 96. The specifics of both islands' D/LDD-situation were, however, hardly taken into consideration in their project design. Overall, beneficiaries in the target communities were presented with an intervention model that started from a number of technical assumptions centring on land restoration and NTFP value chain development (for income generation) that did not directly address their prime concerns on improving food production, and thus food security. As a result, the project only shallowly addressed and improved the conditions and productivity of D/LDD-affected landscapes with impact levels differing over intervention zones. South–South cooperation was limited (exchanges of documents and steering committee meetings) and ad hoc, not resulting from any systematic, programmatic approach.
- 97. The project's short duration of time, initially defined at 55 months, is one of its major shortcomings. The initial duration derived from budget limitations that came with the European Union/ACP funds. The duration of this project duration thus did not follow or derive from any sound ecological or socioeconomic development logic or intervention rationale. Given the wide geographic span involving two project documents, eight countries and three continents, and the complexity of the management model, the project would have benefited from a longer duration. The total project duration was a compromise inspired by, and the result of, political (ACP-EDF cycle period) deliberations rather than inherent project logic. The institutional logic got in the way of project content logic.

Evaluation question 1.1. To what extent were the project's design and objectives relevant to the needs and priorities of the project's beneficiaries?

Finding 2. The project had set out to address land restoration through a technology-driven approach based on its own logic and a fixed set of assumptions that took inspiration from GGWSSI and other similar initiatives. There was little to no room for the beneficiaries' needs and priorities, such as prime concerns with improving food production and increasing food security. Beneficiaries were contracted to perform waged labour tasks (collecting and planting seeds, producing nursery plants), without investing in their actual and true commitment to the project. This weak point of the result chain might explain the lack of enthusiasm, collaboration and ownership at the level of target populations.

¹¹ There is a wealth of capitalization reports/technical notes/guidelines available for FLR activities (in place in most Sahel countries since the 1970s, under the name of "CES-DRS"; see for instance the publication from CILSS/Agrhymet, RECA Niger, etc.), and this information should have been extensively/comprehensively screened and digested by the project preparation team during the inception phase. This has apparently not been done since there is no mention in the project documentation of such analyses. Instead, the preparation team had a narrow(er) approach building its rationale of the proponents' own experience.

- 98. The project's rationale and approach, as originally written out "placed communities (household focus) at the heart of restoration work (landscape approach) by combining science-based plant and planting knowledge with community-defined needs for useful tree/shrub and herbs/grasses species and preferences in restoration to support their livelihoods." These assumptions were expected to be in line with the communities' traditional knowledge systems, preferences and needs, and form the basis for income-generating activities for improved livelihoods.
- 99. On paper, the project's beneficiary-centred intervention logic and design approach was the right one, as it allowed for initial beneficiary involvement voicing their concerns and listening to them albeit with a focus on D/LDD only. However, AAD failed to bring in the wider picture and did not see that the beneficiaries' priorities are not (necessarily) with addressing D/LDD, as their prime concerns are surviving and securing food provision. By failing to address this food issue, the beneficiaries' buy-in was flawed right from the start. As can be derived from the few cases where AAD brought in a food production perspective (in combination with tree planting), beneficiaries voiced their enthusiasm to work on D/LDD mitigation initiatives.
- 100. The lesson here is that AAD (and any other project that wants to address land degradation) should try to focus on and/or combine, synergistically with projects (by FAO or by others) that address this food concern, before starting out with preparing soils and planting trees. This would mean that such a project would have an important (or even start from a) component that would directly and immediately address food production as part of a broader livelihood improvement approach that later could also address restoring lands and replanting these with trees/shrubs and grasses/herbs. Failing to appreciate and acknowledge local populations' food- and nutritionrelated priorities has been shown to result in limited local beneficiaries buy-in, appropriation and sense of ownership of AAD-like initiatives. Per se, such an approach is completely in line with the rationale behind AAD, which was to concentrate on livelihood improvement; bringing in the food perspective would widen the livelihood scope. However, the food security strategy advocated by the project followed the traditional, production-oriented approach which starts from the assumption that increasing production (here of NTFPs) will increase income which will increase expenditure on food, and other social/productive expenditures. However, this indirect way of addressing and increasing food has often been shown to be counterproductive.
- 101. From the 2020 evaluation interviews, it was clear that the project was not open enough to these critical and very legitimate concerns and did not sufficiently take these nutrition/food-related issues into account. Overall, African-country beneficiaries agreed with the project's focus on addressing D/LDD, although they also expressed that their concrete intervention expectations were not always taken up by the project. In Fiji and Haiti, beneficiaries had been expecting shorter-term, crop production-enhancing interventions to bring direct improvements in food and income provision, with a direct bearing on livelihoods, but with little interest in fighting D/LDD. Appendix 6 presents a country-by-country summary of the findings from the interviews and focus group discussions conducted by the evaluation in 2020 with beneficiaries with regards to their needs and expectations.
- 102. In a number of cases, a lack of concertation would explain why the project's intended beneficiaries' expectations/needs were not always met. More generically, the lack of sensitization about the problems the project wanted to address would explain why in several countries overall understanding of these problems and buy-in by beneficiaries remained limited. With the "right" approach (sensitization and capacity building), households should/could become the engine driving sustainable reforestation and land restoration, and success stories would inspire communities that were not originally targeted by the project, creating a spillover effect.

- 103. Even though AAD's overall objective indeed (and rightly so) was/is to improve the living conditions and productivity of the agrosylvipastoral landscapes with a clear livelihood improvement perspective (and through promoting value chain development based on products deriving from plant species planted under the project), its main goals should have focused more on fostering (socio-)economic development and improving livelihoods *sensu lato*. Its approach should primarily have been to create at respective community levels the necessary and most-appropriate socioeconomic environment and attitude to enable initiatives focusing on livelihood improvement to sustainably take root and be continued beyond project duration.
- 104. The project's rationale was to first address another issue (desertification), counting on the positive outcomes of that intervention to sustain the other issues, such as addressing and improving livelihoods. However, according to some stakeholders, the project did not sufficiently address either food production or value chain development. By not doing so, beneficiaries missed out on some immediate, short-term outcomes (e.g. increased food availability and incomes) that might have motivated them to engage in some other flanking measures (such as land restoration and reforestation). Evidence from other projects (FAO & Global Mechanism of the UNCCD, 2015) and scientific literature has shown that starting from an approach that focuses on supporting value chain development in a more direct way could have created income and thus financial means that could have been invested in restoration, and further motivated populations to invest more time and especially means in restoration and reforestation.
- 105. Regarding targeting, there is a clear divide in priorities between Africa and the two island countries. This is partly reflected by, and comes from, the two project documents signed at the onset of the project, and which was made even more explicit during evaluation field interviews where evaluators tried to reconstruct priority-setting exercises.
- 106. In Africa, during recent decades, climate change negatively impacted livelihoods, household incomes and crop yields of local communities in all AAD countries. Desertification and natural hazards become direct threats for local communities. Consequently, villagers know they are vulnerable to drought and famine and are thus in search of and sensitive to structural solutions such as those offered by the project. In some countries, there were specific problems raised during the 2020 field interviews, such as catchment area restoration (Ethiopia); or fire belting, enrichment planting and sustainable harvesting of fuel wood (the Gambia).
- 107. Overall, and maybe surprisingly, needs and priorities as recalled by African-country beneficiaries during the 2020 field interviews were clearly mostly long-term (maybe because they had been goaded by AAD's project presentations to express their thoughts and expectations on addressing desertification and land degradation, and not on their more general development problems), whereas in Haiti and Fiji, target populations voiced more immediate, food-related targets.
- 108. In most AAD countries, beneficiaries were quite in unison in confirming that the project responded to local needs and priorities, albeit not necessarily with a food focus. The lack of direct food production interest from the project, was (at least partly) compensated by the attention for forage and wild food species production through seeding of grasses and herbs for human food and health purposes, and feed for animals. Indeed, project activities very quickly contributed to increasing the supply of livestock feed and had visibly started reducing land degradation, and apparently this was appreciated by a considerable number of beneficiary groups. In the Niger, beneficiaries saw an increase in cropland from AAD's land restoration, whereas in Nigeria, beneficiaries confirmed that following AAD's interventions there had been a "significant" increase in crop harvest (millet, cowpea, fonio, sesame and sorghum).

- 109. In Ethiopia, tree planting led farmers to increase intercropping and agroforestry. However, in Burkina Faso, respondents stressed the need to provide water point sites (pastoral boreholes) to complement increased forage provision, whereas in Nigeria there was also an interest in having more immediate needs addressed by the project, e.g. through micro-gardening for vegetable production. In Fiji and Haiti, beneficiaries had been expecting shorter-term, crop production-enhancing interventions to bring direct improvements in food and income provision, and with a direct bearing on livelihoods.
- 110. In Haiti, this was translated into focusing on new beekeeping techniques, using modern hives, among others. AAD's emphasis on promoting agroforestry techniques was deemed less motivating, and where they were put into place, they were judged to have had fairly limited efficiency and sustainability in terms of land conservation (with the possible exception of Abricot's site).¹²
- 111. In Fiji, the project eventually supported both restoration and livelihood activities in Nasavu, while in both Tiliva and Nawailevu, communities were only interested and involved in livelihood activities. The latter included beekeeping (Nasavu), and vegetable (and other cash crops) growing in both of the other sites. However, it was only in Nasavu that project activities were still ongoing (September 2020 situation). Both Tiliva and Nawailevu, despite the initial success in their vegetable growing initiatives, seemed to have lost interest and thus momentum, and were facing some issues in trying to resume their activities. From the limited number of discussions held, however, it looked like there was sufficient interest in the two communities for things to start moving again.
- 112. Overall, the reasons given by beneficiaries to explain discrepancies between their initial expectations and actual project interventions, centre on: i) lack or even absence of concertation (Haiti); ii) inconsistency between originally planned activities and agreements and actual implementation (Fiji, the Gambia); iii) lack of attention for quick-win activities (Ethiopia, Fiji, the Niger); or iv) more socially oriented interventions (Nigeria, Senegal).
- 113. All these comments indicate that AAD's advent may have created numerous expectations in more than one country, but also that the project may not have been clearly announced, nor was its scope properly presented and explained to beneficiaries, nor limit(ation)s discussed. They also show *ex absurdo* that trying to address environmental degradation, climate change and livelihood issues cannot be done by providing a single, silver-bullet solution.
- 114. The overall recommendation to be derived from the above analysis is that landscape restoration and reforestation should holistically target a wide range of objectives, and thus tackle the problem in a multi-disciplinary, wo/man-centred approach that leaves no sector unaddressed, and ideally starts from an approach the primarily focuses on increasing food security. Land restoration and reforestation may be the overall objective of such projects, but they should be addressed after (or together with) initiating a chain of activities focusing on more sustainable income-generating activities, livelihood improvement, and better health and nutrition provision. In addition, AAD-like

_

¹² Agroforestry in Haiti is historically difficult for a number of reasons – including lack of long-term vision on properties/lack of trust in interventions and internal competition, etc. – as can be seen from the high rate of deforestation at a national level and recurrent deforestation on reforested sites. AAD's beneficiaries' comments would tend one to conclude that there is a clear need for differentiated interventions and more in-depth, socioeconomic background and pre-project preparation work.

- projects should not start from "the traditional, donor-driven approach that brings a blanket technical solution to communities (that often operate in very diverse situations)." ¹³ [sic]
- 115. It is not clear whether AAD's management at whatever level was aware enough of these alternative food provision-related expectations, even though some were clearly outside of its mandate as initially defined in the project document; it would have been advisable to have discussed them with beneficiaries to explain the reasons the project did not take them up. However, interviews conducted for this evaluation infer that with regards to buy-in, and accountability in many instances, beneficiaries did not consider taking their destinies in their own hands and expected all initiatives to come from the project (e.g. Haiti, where respondents highlighted that the project should have carried out "gully correction works" along the contour lines of restored sloping land). The resulting lack of appropriation of AAD's interventions by the beneficiaries is clearly a weak point that should have been and will have to be addressed in the future.
- 116. In most AAD settings/countries, beneficiary communities did not take any proactive initiatives themselves at all, not even on issues where investment cost (e.g. sustainable ecotourism) or technicity of the intervention is/was low. While it would be difficult for a project like AAD to change this attitude in a few years' time, the project could/should have created an environment and atmosphere where grassroot initiatives in line with AAD's overall objective(s) were actively welcomed and supported. Although the project asked beneficiaries to commit land and labour prior to starting its interventions, this was clearly not enough to bring about a real buy-in that would have resulted in long-term intervention sustainability.
- 117. According to several, mostly higher institutional level stakeholders, AAD's technological approach, focusing on large-scale land restoration using heavy machinery where the land degradation situation is extreme and vegetation often completely absent, was shown to be the most adequate intervention approach. The approach is considered a very powerful tool in the fight against desertification and sometimes presented as the only possible option to restore large areas of degraded land.¹⁴ Moreover, for a number of them it was the first time it was shown that this kind of innovative, mechanized approach can actually work, "also" [sic] in Africa, a continent which has always been thought of as somewhat of a lost cause when it came/comes to mechanization in agriculture. However, it should be stressed that this mechanized approach works best in vast expanses of land with little vegetation, or where hardly any vegetation is left. Where forests/forest remnants or forest/shrub savannahs have to be restored, it has been shown that where and when enough (cheap) labour force is available, ANR will also be successful (in terms of regrowth rates; however, in the absence of any machinery use, the surface area that can be restored per time unit will probably remain low). As it is, during AAD's implementation, the initial/planned large-scale, Delfino-based intervention approach was refined (in Africa) and complemented by hand-made zais (the Niger), or ANR, as a function of field or socioeconomic reality. In low-density vegetation environments, subsoiler ploughs can replace Delfino ploughs and open up the soil for greater rainwater storage, whereas soil thus scarified should promote water infiltration and open up seed banks. However, if one thinks in terms of scaling up the reforestation effort, especially in very degraded environments, the Delfino plough will probably remain the best option, particularly since the project based its further implementation activities on a needs assessment prior to planting. Populations were invited to select the perennial species they wanted to plant in the

_

¹³ Wording used during final evaluation donor interview.

¹⁴ In light of this document's analysis and field interview-based findings there is a need to critically interpret this coordinator's position.

Delfino-prepared land, and also define and confirm their interests in the NTFP value chains to be strengthened, and capacity building to be provided.¹⁵

- 118. However, for more rugged, sloping environments, and areas that have some perennial vegetation remnants, be it in the form of shrubs or trees, the project should have invested more time and means to systematically address the problem of land restoration through assisted regeneration, or by enrichment plantings (that were performed even in some "Delfino areas", but could have been emphasized more). The latter may be more labour- and capital-intensive but it was shown during field visits (and confirmed through interviews) to be very effective in sustainably improving land degradation, the biodiversity situation, and eventually crop production, and thus food security. However, ANR would (also) need to be tested for its cost–benefits, and thus cost–effectiveness (also in comparison to large-scale, Delfino-mediated land restoration).
- 119. In all cases, direct seeding would seem to be more economically and technically efficient and should thus be preferred over planting seedlings produced in nurseries, as the latter are costly in water, fencing...and labour. Also, transplanting young seedlings often results in lower-than-expected survival rates in the field.
- 120. From the available information, and a number of field visit findings, the consultation processes followed traditional meeting and decision-taking procedures, i.e. with the meetings being dominated by elderly men. The gender lines were, however, followed when it came to women's economic interest groups selecting their NTFP value chains of interest. In the case of harvesting/collecting grasses/herbs for use as cattle feed by directly involved beneficiaries, or for selling to interested third parties, discussions and activities were mainly (i.e. exclusively) mendominated, as livestock is traditionally a male activity. Additional discussions on how gender was addressed in the project are presented further on in this document.
- 121. There is little information about any alternative initiatives suggested by either individual participants or beneficiary groups during project implementation. Instead, MTR and 2020 field visits showed that participants had mostly been working upon and following the suggestions of the respective PMUs at implementation, whereas they clearly voiced some criticism after project completion, and questioned some of the project's assumptions and modus operandi.
- 122. In a few instances, there was evidence of spontaneous compost pit construction Burkina Faso and the Niger). As it is, in a number of places and where no large stretches of land were available, AAD supported high-intensity, small-scale initiatives that because of the close monitoring by, and enthusiasm of well-sensitized populations can be considered as a success story in the making, and where the initial impetus took momentum and inspired beneficiaries to engage in additional initiatives. This is illustrated by the MTR-highlighted case of the Niamanga site (commune de Pobé Mengao, Burkina Faso), where AAD through its Tiipaalga service provider created a three-hectare exclosure, protecting a small plot of pre-existing trees/shrubs, enriching the site with seedlings of locally interesting species and combining the latter with (vegetable) crops.
- 123. Apart from showing that the project sparked new initiatives, it also shows that service NGOs actively engaging with motivated populations can bring new ideas and inspire populations to develop new initiatives, and even more so, if and when the overarching project management stimulates the latter to do so. Where possible, these dynamics should be documented, shared

27

¹⁵ We are aware that this reasoning comprises a lot of "ifs and thens", but we would like to stress that the large-scale approach will only work in certain environmental/vegetation-density and socioeconomic situations, whereas in others, alternative approaches would be called for.

widely, stimulated, and used as a source of inspiration for others. This would allow for replication of good practices and bring about scaling-up processes. It shows that integrated/multilevel restoration techniques can be promoted through close monitoring by a local NGO that is in close relationship with the beneficiaries. It should be added, however, that AAD's initially-defined implementation model did not necessarily allow for these small-scale, labour-intensive and beneficiary-defined activities to be initiated (as it was/is deemed difficult to coordinate a number of small-scale and scattered activities), even though the above example shows that they can indeed be successful and help motivate farmers to engage more in project-initiated initiatives (see several examples from Burkina Faso and the Niger). In future, it is advisable, however, to reconsider the management model for greater subsidiarity, as this would result in increased grassroot-level autonomy and appropriation (even if this would mean covering fewer countries and/or sites).

124. In a number of countries, the landscape restoration approach advocated by the project served as a source of inspiration for line ministries involved in restoration/reforestation to indeed take up and further develop a similar large-scale, machinery-driven intervention logic. In the case of Senegal, where some older-model Delfino ploughs were still around, the latter were serviced again and put into use. At this instance, Delfino ploughs are operational in the four West African countries, albeit with some difficulties for lack of adequate budget and/or technical knowhow, resulting in poor maintenance and functioning.

Evaluation question 1.2. How relevant and coherent was the project for the eight AAD countries, and the GGW and UNCCD strategies (2009–2018 and 2019–2030)?

Evaluation question 3.4. How effective has the project been in coordinating with other relevant projects and initiatives such as FAO, GGWSSI and UNCCD-led projects)?

Evaluation question 2.4. How effective has the project been in contributing to UNCCD strategies, GGW, and SDG 13 (Climate Action) and SDG15 (Life on Land)?

Evaluation question 1.3. How relevant and coherent was the project and the eight national AAD responses to FAO's strategic framework, particularly the FAO Climate Change Strategy, poverty reduction and food security?

Finding 3. The project can be considered conceptually in line with FAO's strategic framework, and particularly with FAO's Climate Change Strategy. Overall relevance of the project (for all eight countries) was high, but coherence was low because of a lack of a programmatic approach by FAO in liaising/connecting with other activities addressing food production and generating income in the project's intervention area. There was a divide in concept rationale and logic, concrete intervention activities and technical solutions offered between the six GGWSSI-countries in Africa, and Fiji and Haiti (ACP countries). In Africa, the AAD project was in line with the GGWSSI and served as a test laboratory for innovative interventions and – up to a certain level – M&E (geospatial monitoring of activities and results) strategies. As confirmed by a number of institutional stakeholders, there is little evidence of interaction with other similar projects (e.g. FLEUVE). The project contributes to Sustainable Development Goal (SDG) 15 (Life of Land), but SDG 13 (Climate Action) was only addressed indirectly.

125. The initial project idea seems to have taken a lot of inspiration (land preparation technology and the intervention scale used) from the GGWSSI, that developed the project for a large-scale intervention on the African continent, and then asked to apply the same approach to both Fiji and Haiti. Due to their different ecologies, but also experiences with land restoration in a hurricane-

.

¹⁶ In the absence of a sound M&E system, the geospatial monitoring tool developed and tested under the project brought some quantifiable elements, allowing for some form of monitoring; however, the tool was insufficient in compensating for the lack of field-collected data.

prone and differing sociocultural environment, these countries should have been offered another intervention logic. As a result, both overall coherence and sharing of knowledge and experiences between the continents were low.

- 126. In a number of countries, the project's PMU was lodged with the national GGW authority. In a certain way, AAD served as a test laboratory for innovative intervention (mechanization and large-scale restoration) and M&E strategies (satellite imagery for controlling whether service provider-declared surface areas reflected reality, and monitoring reforestation dynamics and seedling growth and survival). AAD helped build a consistent "green growth" message at national levels through publicizing its initiatives and mainstreaming its approach, documenting and sharing its different achievements through media, and targeting diverse audiences.
- 127. There is little evidence that the project reached out to other similar initiatives. The initial idea was that AAD would build on and collaborate with the EC-funded and UNCCD-implemented FLEUVE project that worked partly in the same zone. However, the latter was not very successful and there was little (to no?) interaction between both. Several institutional project partners commented that the project could have done better with regard to collaborating with and benefiting from the technical support and experience of other in-house FAO departments.
- 128. The UNCCD does not have much field experience but it is good at outreaching, and thus interested in communicating and showcasing AAD's success stories and results to build awareness at the regional, continental and global levels. The campaign on the GGWSSI launched by UNCCD in 2019 "Growing a World Wonder" aimed to boost global awareness and inspire long-term public and private investment in the initiative; it has reached millions of people.
- 129. The UNCCD is managing an "impact investment fund", launched in 2017 at the Conference of the Parties (COP) 13, that invests in land restoration and combines a grant mechanism with provision of loans to local companies (UNCCCD, n.d.). The UNCCD thinks that systems of blended finance, i.e. the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development, and that let the market play its role, is the way forward, also for addressing D/LDD. FAO's and AAD's community-based, donor-funded approach could/should be linked with private enterprise interventions (such as the Aduna case, presented later in this document) which could improve sustainability.
- 130. More in general, the global mechanism of the UNCCD also supports the *development of sustainable value chains*, where it is working with the private sector that guarantees purchase of dryland products in the Sahel. This leads to the *creation of land-based jobs* for thousands of *rural women* in the Sahel. The italicized keywords also appear in AAD's intervention logic. A missed chance by AAD, however, is the part on the private sector's direct contribution to the demand side of value chains.
- 131. Within AAD, there is evidence of a number of institutionalized partnerships, especially with foreign and local service providers (e.g. Reach Italia) and research institutes (e.g. University of Bonn and UCL-Belgium). These resulted in research findings confirming/informing project hypotheses and assumptions, and training and capacity building outcomes. However, there has been little interaction with like-minded and -operating intervention projects. In this respect, the project probably missed an opportunity to capitalize on its own achievements and scale up activities during project implementation. The fact that some new donors (e.g. Turkey) and institutions became interested in AAD's intervention logic, however, can be seen as an absolute bill of exchange for the future, and it would thus be advisable that FAO would indeed "cash in" on this momentum.

- 132. Additionally, especially in the Niger, Nigeria and Burkina Faso, the project was operating in politically unsecure and unstable environments (see also the MTR). However, where most donors and organizations had withdrawn, AAD continued to collaborate with local governments and stakeholders to put its interventions on the ground. This was highly appreciated by all stakeholders, both those directly concerned and others.
- 133. The project was in line with SDG 15 (Life of Land), whose ultimate goal is to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss. The SDG 13 (Climate Action), which stipulates "Take urgent action to combat climate change and its impacts" was only addressed indirectly as trees/shrubs sequester greenhouse gases (as long as they are not felled or burnt), whereas such targets as strengthening resilience and adaptive capacity to climate-related disasters; integrating climate change measures into policies and planning; or building knowledge and capacity to meet climate change did not figure in its intervention logic.

Evaluation question 1.4. To what extent was the AAD logical model appropriate to reach its goal and objectives?

Finding 4. The logical framework was framed in line with the project's objectives and rationale, and provided some, but very generally-termed guidance – phrased more in terms of principles – to help reach the project's goals and objectives.

134. The two project documents dated August 2014 – Section 1.2., Expected results; and Annex 5 (for the African countries' document) or Annex 3 (Fiji and Haiti), Project indicative logical framework – are literally short, indicative and not detailed, which is surprising for a project of such magnitude. The logical model was expected to be refined during an inception phase of seven months, which indicates that the real feasibility would only be detailed after the launching of the project (see Appendix 2 for the original logframe). But the project monitoring tables show that the baseline situation and logical frameworks (at the global level, with fine-tuning at national levels) were not completed during the inception phase, leaving each national PMU to have its own understanding of the project. Overall, AAD has only been partially able to deliver on initial expectations as framed in the logframes, and milestones as proposed in the two ProDocs. Further detail is provided in this report.

Evaluation question 1.5. Given the context, to what extent is the South–South Cooperation mode/approach that has been adopted and applied by the project relevant?

Finding 5. The adopted South–South Cooperation approach did not result in particularly relevant information about sharing and collaboration between partners in different continents. Collaboration, when it occurred, was limited to exchanges of planting materials and some sharing of lessons. The positive reported results were adoption of specific planting and harvesting techniques in Fiji and Haiti based on the experiences of Burkina Faso and the Niger.

- 135. The project was initiated upon request of the AUC, financed by the EC, and executed by FAO. The EC specifically wanted to bring in a broad South–South perspective, using its support to ACP as an entry point to widen the Sahel-focused intervention scope to Haiti and Fiji, with the main focus of AAD on sub-Saharan Africa. Most stakeholders, however, pointed out that information sharing and collaboration between the different-continent partners was not exactly successful, presumably for lack of strong AUC leadership and coordination. At best it consisted of literally sharing information, without actively exchanging or confronting ideas.
- 136. Collaboration, if at all active/present, was mostly of an across-border nature, with exchanges of planting materials mostly seeds and in some cases also concerned sharing of lessons learned (during Steering Committee meetings, or otherwise), resulting in the adoption of, for example,

plant and seed inoculation or digging half-moons for rainwater harvesting, and reduced nutrient runoff in Fiji and Haiti, based on the experiences of Burkina Faso and the Niger.

Evaluation question 1.6. To what extent are the planned/applied research and piloting/modelling/scaling-up approaches relevant for the project intervention areas?

Finding 6. Applied research concentrated on a limited number of ad hoc issues¹⁷ and did not address other themes that might have been important for furthering project success and impact (such as the potential of ANR, follow-up on, and importance of natural or inoculated mycorrhizae populations for seedling (survival) success, or environmental impact of AAD's intervention model, but also the validity of the NTFP value chain approach).

- 137. In the few cases where research was conducted on plant/ing, and ecological and intervention approaches, it was confirmed as a (potentially) critical factor in improving/sustaining and explaining the success and impact of AAD restoration and livelihood improvement interventions. However, in the absence of socioeconomic research (testing some intervention hypotheses), and especially a regular, robust and well-performing M&E system, numerous potentially interesting perspectives were clearly missed.
- 138. The FPMIS data were not detailed/timely enough to allow for adequate follow-ups on pilot activities. Additionally, no proper cost-benefit analyses, nor any calculations on break-even or payback periods, were done on any of the interventions, whereas the overall project investment should also have included a cost-benefit analysis, as this is a common practice in project document elaboration. A proper cost-benefit analysis would also have allowed for evaluating overhead costs, overall returns on investment, etc. As it is, the lack of quantified data on unit costs for a restored hectare or nursery-grown seedling and benefits from L/LDD investments resulted in an absence of standard figures that would have allowed for more adequate similar-project costing in future. Scientific literature at large does not provide for this type of information either, and that is to be deplored.
- As the MTR already pointed out, it is fair to conclude that, overall, project-proposed SLM practices were internalized, mainstreamed and scaled up by national programmes, as in most cases they were already part and parcel of national policies targeting desertification and land degradation mitigation. At the level of local communities (farmers) and other projects and initiatives, this is still questionable, especially in the absence of sound financial mechanisms that would guarantee sustainable uptake. The project acquired specialized machinery that was left with the respective target countries it was bought for, and developed a skilled workforce that can be leveraged to scale up restoration activities beyond its closing date. This equipment and skilled workforce comprised (but not limited to) numerous trained technicians and community members, four new units of tractors and Delfino ploughs (specially designed for mechanized land preparation) in

¹⁷ According to a PhD research project on inoculation in Burkina Faso; native species collection in Fiji; some forestry research in Ethiopia; and herbarium-oriented MSc thesis work at *Université Nouvelle Grand'Anse* (UNOGA) in Haiti. In Senegal, there were some ideas that research should be involved in developing a M&E system and could/should help in data collection. In Nigeria, discussions were started with a number of research institutes (Forestry Research Institute – which participated in technical training on seed collection in Nigeria, and that wanted to follow Burkina Faso's research example, the National Animal Production and Research Institute, etc.) to identify innovative approaches – improved species resistant to drought, tissue culture, use of inoculums, NTFP product mix to enhance value addition, etc. that the AAD project could adopt in future. International support came from the Belgian UCL University centre that compared the effectiveness of both direct seeding and transplanting seedlings from nurseries into the field (Vankoningsloo, M., 2019). *Evaluation des impacts environnementaux du projet « Action contre la Desertification » de la FAO, mis en oeuvre dans le Ferlo senegalais et en appui à la Grande Muraille Verte.* MSc thesis, UCL-Belgium, 117 pp.), whereas the University of Bonn analyzed the costs and benefits of the AAD restoration interventions, specifically in the context of Africa's GGW.

Burkina Faso and the Niger (2018), and in Nigeria and Senegal (2020), consolidated technical and organizational capacities of key stakeholders and good institutional linkages at local, transboundary and international levels.

Evaluation question 1.8. To what extent is the combination of approaches deployed by the project (the AAD model) relevant for reaching the defined goals, outcomes and outputs?

Finding 7. The AAD project took on a large-scale, mechanized intervention approach based on the active involvement of beneficiaries and the respective governments' buy-in. However, the local beneficiaries' buy-in remained low, and the concrete results attained (restored and planted surface areas and developed value chains) were slow to come (and for some countries under par/expectations¹⁸) due to the late start of restoration activities, and problems inherently linked to the large scale of the interventions.

- 140. The project based its approach factoring in the enormous surface areas that need to be restored and/or forested, and the restoration activities that need to become part and parcel of the governments' and beneficiaries' coping strategies. It also built on lessons learned from the first years of GGWSSI and FAO's experience with similar interventions. The large-scale, mechanized intervention approach was also based on the active involvement of beneficiaries and respective governments' buy-in.
- 141. In reality, however, the local beneficiaries' buy-in remained low (due to inadequate sensitization and lack of proper training and financial mechanisms that would have guaranteed long-term sustainability), whereas the concrete results attained (restored and planted surface areas and developed value chains) remained under par because of the late start of restoration activities, but also due to problems inherently linked to the large scale of the interventions (heavy machinery use, but also large plot sizes that are difficult to manage and protect, especially in the first years after planting when treelets are most vulnerable to bushfire, cattle...).¹⁹
- 142. Many respondents pointed out that project handover will probably not lead to a sustainable continuation of activities for lack of a sound financial mechanism that would allow for bearing all costs linked to maintenance, repair and overall management of reforested sites, land restoration equipment and NTFP-processing infrastructures. Moreover, land restoration (at this large scale, but also at smaller scales) was linked to value chain development where value chains would draw on raw produce/NTFPs derived from the exact tree/shrub (and forage from grasses and herbs) planted under the reforestation activities. We can confirm that the latter model is indeed a very relevant one as it brings a market-oriented, income-generating development "flavour" to the more technical, environment-oriented, and basically money-intensive, non-profitable restoration effort, which in the right conditions would bring financial resources to communities that would allow them to improve their livelihood conditions, but also food security and sustainability. However, as we will also demonstrate further in this report, sensitization and training of beneficiaries was often incomplete. Also, the model with which equipment was "transferred"/bestowed on groups managing the processing infrastructure in the absence of a commercial business-model (where the demand side would have been tackled/developed) can be considered incomplete. In addition, handing out equipment for free cannot be part of a sustainable, development-oriented approach that would allow for an independent and viable continuation of activities beyond the project's time horizon.

-

¹⁸ See Table 2, and discussion therewith.

¹⁹ As can be seen from Table 2, hectarages for Nigeria and Ethiopia are by all standards low. Also, the table only presents planted areas, not *successfully* planted areas. The number of fully developed and operational value chains remained low, and here again, some were equipped, but not necessarily functioning well.

- 143. Like with other projects, AAD thought and intended for it to be inclusive, and eventually wanted to sustainably transfer what it started. However, "transferring" activities and responsibilities to communities that never felt they had been involved in planning, or that they own(ed) the initiative that is handed over to them simply will not work and will indeed prevent the sustainable continuation of what was financed and started under the project. If an intervention does not rely on and does not involve right from the start the so-called target group in conceiving, planning, executing, monitoring, evaluating, adjusting... all interventions, the latter will never be sustainable. AAD's landscape approach (technically addressing D/LDD) hinges on, starts from and reposes on a process of social mobilization, where local populations get full responsibility over interventions. This calls for a form of social engineering that was only partly addressed and taken up by the project for lack of experience with livelihood promotion and performant socioeconomic intervention strategies. The fact that target groups²⁰ were not seen as true partners in project conception and implementation explains why the chances for continued success beyond AAD's completion are slim/questionable.
- In summary, for the large-scale model advocated by the project to succeed, i) local populations and all stakeholders along the whole intervention chain should be properly and extensively involved and feel they know, understand and own the initiative; and ii) financial sustainability must be guaranteed and built into the project intervention right from the onset, for example by sensitizing and training beneficiaries on microfinance (saving schemes) and financial management techniques. Indeed, AAD's large-scale mechanized approach can only be successful if these large stretches of land are adequately managed in the first years (and protected from bushfires, cattle pressure...), and when NTFP production is successful enough to ensure the local populations' buyin, and thus be a guarantee against future land degradation. In most cases, however, NTFP production cannot compete with "unsustainable" land practices that bring more immediate, short-term incomes (firewood harvesting and charcoal production, slash-and-burn agriculture, etc.). In the absence of locally specific cost–benefit analyses of different land use alternatives, the primary focus on NTFPs (with few accompanying measures to shift from unsustainable to sustainable agrosilvopastoral practices) is questionable.
- 145. This report will further elaborate on the sustainability issues and propose alternative financing mechanisms to allow subsequent initiatives to indeed go beyond limited and limiting project horizons.

3.2 Effectiveness

Evaluation question 2a. To what extent (and how effectively) has the project contributed to improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD?

Finding 8. Taking the project's technical intervention logic as criterion, AAD contributed to improving the conditions/productivity of agrosilvopastoral landscapes, although on a more limited scale and at a higher cost than expected. The total monetary income as a proxy of productivity was in the range of USD 130 000, which by all standards is low.

146. The project addressed, up to a certain level, the needs of the targeted beneficiary groups in terms of livelihood and improvement in the production system's productivity. At the local level, the latter beneficiaries comprise resource-poor rural and farm households, local farmer and producer organizations and community associations, NGOs, women's groups and youths, who are all

²⁰ Semantically, using the word "target" already implies that an outsider organization brings something to, or focuses on someone/some organization that is outside of its own constituency.

- among the most vulnerable to climate change, desertification, land degradation and drought/flood events.
- 147. However, in the absence of a proper M&E system for the project (apart from the FPMIS table that only compiled very broad/superficial data, mostly in an untimely manner), it is not possible to compare or conclude to what extent the project was successful in improving the conditions and productivity of the AAD sites' agrosilvopastoral landscapes versus those outside of its intervention zones. The overall scale of interventions remained rather small (both in hectarage and number of NTFP-processing group terms) in most of the countries covered, so that AAD's overall impact on the problems highlighted hereabove inescapably remained limited, whereas revenues derived from NTFP value chains remained very low (around USD 2/ha, based on Table 2 data).
- 148. In order to guarantee long-term sustainability of the project, and more widely, any intervention that targets land restoration (in combination with viable value chain development and in line with a proper exit strategy), all projects should be focused more on fostering and consolidating the existing socioeconomic and rural development dynamics of the target communities. This is further elaborated in this report.

Evaluation question 2b. To what extent and how effectively has the project contributed to South–South Cooperation among ACP countries?

- **Finding 9.** The project organized regional and international events, meetings and technical visits for learning and exchange gathering between AAD's and GGW's countries. The lack of a formal structure for South–South sharing of lessons learned resulted in missed opportunities to work and collaborate more effectively with others.
- 149. The project organized three regional workshops that brought together all GGW countries around technical themes (12-15 countries each). AAD's global Steering Committee meetings included technical field visits, learning and exchange (in Burkina Faso and the Niger, involving Fiji and Haiti; in Brussels in 2018; and in Nouakchott in 2019, involving only GGWSSI countries from Africa), and the FAO/African Development Bank/Pan-African Agency for the Great Green Wall (FAO/AfDB/PA-GGW) workshop in Abidjan for fund mobilization for the GGW.
- These activities, however, were not part of a formal, structured, purposeful and well-planned mechanism where all project partners, including local stakeholders, would regularly share their progress and work plans, experiences and information. This resulted in missed opportunities to work and collaborate effectively with others. As a consequence, in Senegal, the country's EC representation was not aware of AAD's operational presence at the time of the MTR, whereas in other countries, collaboration and synergies between AAD's stakeholders was suboptimal (e.g. Fiji). Close South–South Cooperation has not happened at the level of the African countries (not even for those that are contingent to one another, or whose intervention zones are close to one another and that have previously been involved in joint interventions on similar issues through other organizations and initiatives, like Burkina Faso/the Niger, nor was it structurally facilitated across continents for the African and Caribbean countries. There is also no evidence of informal contacts/information exchange between continents, or within continent countries.

Evaluation question 2.1. To what extent has the project enhanced (the creation of an) enabling environment and capacity of relevant governmental and non-governmental organizations and stakeholders in ACP countries to carry out effective cross-sectoral work, planning, financing, budgeting, implementation, monitoring and evaluation of sustainable land/forest management and restoration efforts at the landscape level (Outcome/result 1)?

Finding 10. The project trained an estimated total of 24 257 stakeholders, including final beneficiaries, and governmental and non-governmental stakeholders, through 251 training sessions and workshops (Table 1). The project did not have a programmatic approach to structuring the logic and thematics of the trainings, thus they did not develop organizational and technical competencies for management and implementation of activities and technologies. While stakeholders were trained, it is not possible to affirm that the project has enhanced a truly, well-performing enabling environment and capacity to carry out effective work of sustainable land/forest management and restoration efforts. Where enabling environment elements were developed, they were incomplete and differed in extent between countries.

- 151. Capacity development activities. Capacity development to create an enabling environment was a major focus of AAD in all the targeted countries (as per the terminal report). As stated in the above, an estimated total of 24 257 beneficiaries were reached through 251 training sessions and workshops (Table 1). Institutional capacity-level assessments were conducted in all countries prior to, during or just after inception, and informed the development of training schemes and activities. According to the terminal reports, capacity-development activities across countries focused largely on the more technical aspects of reforestation and plantation, including several topics as described earlier.
- 152. The training provided on the development of NTFP value chains demonstrated a certain level of success, as evidenced by the number of income-generating activities that were established in each country (Table 2). Compared with the initial ambitions of the project, however, the level of success can be considered low.
- 153. Training intensity. There is significant discrepancy between training intensity (as evidenced by the number of training sessions provided) in Burkina Faso and the rest of the African countries (Table 1). This difference, however, is hardly reflected in the respective prepared and planted surface areas in the six African countries, as Burkina Faso has a sizeable but not a significantly higher planted hectarage coming second after the Niger (Table 2).
- 154. It should be repeated that the project did not start at the same moment in the different countries, whereas several countries encountered a backlog in project disbursement (due to several local, but also project-linked institutional management issues) and acquisition and commissioning of land-preparation equipment (i.e. heavy-duty tractors and Delfino ploughs), also because of a backlog in training the necessary technicians. The high figures for Burkina Faso also seem bizarre as the intervention zone was very quickly threatened by conflict after the influx of fundamentalist Muslim groups, and "ordinary" robber gangs. The resulting unsafe situation was not necessarily a good environment for training or project interventions to continue and deliver as planned.
- 155. The lack of sound M&E and rigorous reporting systems, discussed elsewhere, might be at the basis of these discrepancies, whereas there might also be an institutional factor reflecting different management and implementation approaches among AAD countries. In addition, it should be noted that the evaluation was not able to triangulate the data reported in the terminal reports. The criteria for counting the numbers of trained stakeholders are also not clear.
- 156. Training content. Content-wise, apparently little attention went to sensitizing the beneficiary populations about drought and degradation problems, or (in)formal group creation and management activities. Training sessions mainly focused on technical, result-oriented capacities, and not on the soft skills needed to make population groups become aware of (the dynamics and reasons for) environmental problems such as drought and land degradation, and the possible solutions and actions. Sustainable management of land restoration investments, and principles of sustainability and ownership are other topics that were not covered.

- 157. There is no evidence of a programmatic training approach, where trainees would have been mentored to allow them to mature in a certain process of acquisition of technical knowledge and soft skills through a logical sequence of training sessions.
- 158. The focus on mechanistic development activities without attention for the institutional "software" or the financial resource mobilization mechanisms needed to run these activities sustainably and in a self-sufficient manner, explains why the sustainability of the proposed interventions is questionable, both when focusing on activities deployed during the project, but also when trying to maintain and continue them beyond project duration.

Evaluation question 2.2 To what extent has the project enhanced the capacities of local communities, governmental and non-governmental stakeholders (including youths, women and civil society) in selected landscape units to adopt and use improved sustainable land/forest management practices and technologies, as part of the implementation of their (GGWSSI) action plans? (Outcome/result 2)

Finding 11. The project trained technicians and stakeholders at all levels in planning, implementing, and monitoring and evaluating biophysical and socioeconomic activities. The project also trained beneficiaries in African AAD countries on how to use improved/innovative, sustainable land/forest management practices and technologies. Beneficiaries see and appreciate the advantages of the new techniques, but there is limited evidenced of adoption and use of practices. There is, however, evidence of generated additional income and improvements in livelihoods. Figures reported by the project do not provide information on the success/survival rates of planted seed and seedlings. Eco-and financial literacy were missing pieces in the approach.

- 159. Stakeholders at all levels were trained in the technical and organizational aspects of adopting and using improved sustainable land/forest management practices and technologies and developing/running NTFP value chains as part of the respective areas'/countries' action plans. Here also, capacity enhancement yielded mixed results for a lack of a sound, programmatic approach with a logical sequence of training contents.
- 160. Communities are perceived to have changed their traditional approach to land management following AAD's intervention. Stakeholders' interviews for this evaluation also agree that target communities are now better equipped to effectively plan land restoration and subsequently manage forest and land resources for improved soil fertility and productivity through a number of project-proposed management methods and technologies (seed collection and management). They also noticed changes in methodologies (e.g. direct seeding of recovered sites) and planning (availability of quality seeds through collection and storage prior to land reclamation work) that enhance restoration, whereas enrichment tree planting of degraded areas within forest lands and the use of shared reclaimed land/forest resources (animal grazing) are also considered to be a plus. All the above was possible through increased stakeholder involvement and cooperation (creation of management committees, new groups, revitalization of existing groups, development of groups towards Village Forest Enterprises of certain groups, etc.) in all project activities.
- 161. In addition, beneficiaries²¹ heard by evaluation state that the implementation of project activities contributed to the reforestation of large, degraded areas, with a concomitant increase in forage supply and NTFPs; animal damage in the fields was said to have been reduced, whereas there was also a reduction in farmer–cattle herder conflicts and an increase in awareness of the need to protect the environment through a participatory and concerted management model.

-

²¹ Eleven interviews.

- 162. In Burkina Faso, local land management committees are now better perceived in the community than before, and much more in demand for addressing land issues. Additional income for the populations concerned comes through marketing of forage and soap (from Balanite oil), and through an increase in agricultural yields (from a more diversified mix of crops).
- 163. In Ethiopia, communities are changing their management practices, and changing their land into agroforestry, fruit tree orchards and intercropping practices. Restoration and rehabilitation are recognized to benefit local populations as they conserve water and soil, creating new habitats for wild animals, increasing vegetation cover, and improving soil water tables (resulting in more water sources in the lower parts of the catchment areas).
- 164. In Fiji (at least in Doguru community), the community is continuing to manage the land in line with their project-induced, community-based participatory land use plan. Even in the absence of a formal plan, the Nasavu community claimed it was now more careful when deciding how its land should be used. The use of local species in restoration had especially kindled the young people's interest in their local tree species, as they also seem to understand the link between their natural resources and their culture.
- 165. The Gambia claims communities are now better equipped for more efficient planning, with the development of one- and five-year management plans and matrices for sustainable land and forest resources, whereas it is felt that current land management plans are different from those adopted before the advent of the project. There is increased awareness in all communities of the urgent need to adopt the proposed SLMs and forest restoration techniques. This may be explained by the fact that the majority of project interventions centred on school compounds, planting school forests and vegetable gardens, but also improved, energy-efficient mud and metal cooking stoves. The increase in pastureland has led to reduced conflicts between pastoralists and forest management teams, whereas incomes from beekeeping, handicrafts, seed collection and marketing, and tree nursery management have noticeably increased.
- 166. Haiti clearly is an outlier as planters [sic] seem to be basically only interested in straw ramps and planting cocoa, missing out on the wider and more structural management-plan issue, which is opposed to the situation in the Niger where community awareness with regard to land management has resulted in better monitoring of restored sites, prohibition of logging at restored sites, and collaboration with forestry services to denounce offenders so that the service can verbalize them. Contour canals and straw ramps have reduced erosion in Haiti, whereas the effects of planting trees there are currently less noticeable. Some respondents have reported increases in bean and sweet potato yields,²² and the use of fewer seeds to attain sizeable yields. Some remarked that the lack of an adequate monitoring tool did not allow for determining accurate results.
- 167. In the Niger, the recovery of large, degraded areas; rapid revegetation of restored areas; increased availability of pastureland; the increase in agricultural land and its productivity; increased availability of *Senna tora* (used as hunger food during lean periods and low cereal production); diversification and improvement of women's incomes; and increased provision of food ingredients (especially *S. tora* leaves, which have significant nutritional value) are all mentioned as clear signs of successful introduction and adoption of project techniques.

-

²² Even though not enough time has elapsed since project intervention ended to be able to evidence increased soil fertility and production effects.

- 168. In Nigeria, beneficiary communities have understood that mechanical land restoration can indeed bring about fundamental changes in grazing-land development and degraded land restoration. They appreciated the socioeconomic changes induced by the project, i.e. increased income from Balanite oil and honey, but also from seed collection and through local consumption and sale of vegetables; increased fodder (and reduced farmer–pastoralist conflicts); and increased vegetation cover (also through natural tree regeneration) that helps in improving soil fertility and desertification control.
- 169. Senegal has a focus on reduction of transhumant cattle impact, basically through well-planned pastureland use by cattle during the dry season. Respondents named qualitative/quantitative increase in herbaceous cover, reduction in transhumant movements (questionable as there is no clear evidence of less transhumant-cattle impact on plantations, whereas in several instances fences and gates were seen to have been broken or stolen by nomads) and appearance of new plant and animal species as benefits from the project.
- 170. In the absence of a sound M&E system with close monitoring and ground-truthing of field dynamics and recovery numbers of successful germination and seedling (together with transplanted seedling) survival, it is difficult to know what the success rate of the respective plantings has been. The figures in Table 2 only provide information on the prepared surfaces areas, quantities of seeds and number of seedlings planted, not on success/survival rates. Information gathered from the respective AAD management units during final review interviews puts the latter rates (typically) in the range of 50 percent, which is only partly confirmed by the geospatial monitoring tool that was established and tested under the project.
- 171. Concrete livelihood improvements were mentioned by most respondents in all countries, with higher income coming from salaries derived from temporary jobs created by the project: seed collection, direct seeding and planting of seedlings... but also, albeit to a minor degree, from income-generating activities. Therefore, it is fair to say that the latter do not yet contribute significantly to long-term livelihood improvement, with some exceptions - the Niger: sale of Senna tora leaves (one bag sold at XAF 1 500); Burkina Faso/Nigeria: honey (both), Balanite oil (both), market gardening (Nigeria), and roof thatching material (Burkina Faso). In Burkina Faso, women say that site reclamation improved food security: they have more leaves to make sauce, whereas cow milk production also increased significantly. In Ethiopia, women, the young, and vulnerable received direct cash payments from restoration activities; of late, beneficiaries have started animal fattening, raising chicken and sheep, but no further livelihood improvements could be documented (although a number of trees – multipurpose and fruit –were planted that should bring future harvests of mango, papaya, Moringa oleifera, Ziziphus mauritania and buckthorn). In Fiji, only beehives were mentioned as a ready source of income; the results of the one season of vegetable crops were deemed not conclusive (especially because there had not yet been a followup), whereas sale of sandalwood seedlings is in the pipeline. In the Gambia and Senegal, it was specifically highlighted that pastoralists now had a more reliable and sustainable source of forage. Nigeria additionally mentioned the increased provision of drinking water.
- 172. Concrete positive incidence on household income, food security (from plants for food and medicine), crops (mostly vegetables, but also cereals), milk (from improved animal health and more and better-quality fodder) and community interactions (fewer farmer–pastoralist conflicts and land disputes) were mentioned in all countries.
- 173. Use of local species in reforestation worked well, especially when combining traditional knowledge on native plant species with science-based applied plant/ing expertise (including treatments of stored seeds, and seeds before sowing). Most species planted in the six African

countries occur naturally in all six countries – and most stakeholders agree on the fact that the programme had an excellent approach, which was to start with focusing on working with local/endemic species. The latter are mostly used for the same (by-)products development in the six countries. Overall, cultural and socioeconomic attitudes and expectations are also shared in all six countries. Where this approach was applied, it is confirmed as a possible factor of success of the restoration interventions.

- 174. Transhumant vs sedentary farmers: conflicts. Already at the MTR, but confirmed during the evaluation discussions in September 2020, several instances of conflicts between sedentary and transhumant farmers (especially in Senegal, but also elsewhere - Ethiopia and Nigeria) were mentioned to curtail successful reforestation. In the absence of capacity building in conflict resolution and mediation facilitated by the project, a number of communities were unable to deliver on engagement towards the project. More in general, there is deep-felt need to try and address this type of conflict at a higher, more political level. AAD should not have ignored the existence of this type of conflict or regarded them as being "less important". From interviews done for this evaluation, it emerges that AAD sometimes had the attitude that nomads should understand that they are not respecting local sedentary farmers' livelihoods and should "just change their behaviour". This is clearly not the right attitude, and a more proactive conflict mitigation policy should have been adopted. Indeed, work on preventing inter-communal conflicts starts from engaging with a broad range of local stakeholders and national authorities to empower local peace efforts, support long-term mechanisms and therefore foster reconciliation and social cohesion. This is done by supporting dialogue before and after the migration season in order to agree on measures that can defuse tensions and minimize the impact on local communities. This has often resulted in the consensual demarcation of migratory routes; investment in the development of community infrastructures to ease migration (i.e. drilling new boreholes); and the establishment of agreements and contracts of controlled provision of fodder and browse to nomad groups by sedentary communities (our addition, inspired by the AAD approach); the designation of informal dispute resolution mechanisms, as well as conducting joint military/police patrols along such migratory corridors to deter violence, would best address incidents, if and when they occur. Moreover, to mitigate conflicts, organizations should collaborate with local authorities to establish buffer zones, protect agreed corridors when necessary and deploy police/military to affected areas. Likewise, these organizations should conduct confidence-building visits in conflict areas, engage with local leaders, use mediation mechanisms and collaborate with key actors to contain the violence (UN, 2020).
- 175. Ecological and financial literacy. In a context of persistent and even increasing D/LDD problems, the prime concern should be to confirm and increase the local populations' existing ecological literacy through field appreciation and subsequent sensitization, capacity building and empowerment. Being eco-literate means understanding the principles of the organization of ecological communities (i.e. ecosystems) and using these principles to create sustainable human communities and livelihoods. An eco-literate society is a sustainable society that does not destroy the environment on which it depends. Eco-literacy creates the foundation for an integrated approach to environmental problems. Overall, AAD forgot to build its intervention model on a solid eco-literate basis. In numerous countries, sensitization, and commitment and ownership building only started a few years after the first interventions had already begun (without being necessarily successful). This is clearly a problem of "putting the horse behind the cart."
- 176. Training beneficiaries in basic microfinancial skills would have allowed them to mobilize local (monetary or other) resources as a basis for self-financing all kinds of productive (and other) activities. This, however, would have implied a complete shift in strategy and approach, as it means that instead of emphasizing a mechanistic, production-oriented logic that focuses on bringing

technical solutions to the problem (desertification, land degradation and – more widely – climate change), the project would first invest in properly sensitizing and equipping communities with the mechanisms that would guarantee financial buy-in and ownership of all initiatives promoted under the programme. This would mean prioritizing the promotion of (in)formal microfinancial activities and institutions that could sustain the more conceptual and intervention activities that would be initiated, planned and managed by farmer groups that represent the whole community, have learned how to deal with conflicts, and feel they own the interventions. This buy-in literally means that participant beneficiaries should contribute in kind or financially in the acquisition of inputs and equipment, but also that a carbon credit-based system could come in and increase the financial contribution of these beneficiaries, who should actively contribute through labour provision or otherwise in putting on the ground the different interventions that would allow them to solve problems they feel they can and should address themselves. In this context, the technical solutions - that have proven their impact and effectiveness - are secondary, but still important drivers for success. The lack of financial literacy may prevent target communities from taking control of their own destiny, let alone obtain financial autonomy, and thus contribute to the maintenance of the donor-dependency.

- 177. Additionally, the project did not systematize an approach that could have increased overall buyin by allowing beneficiaries to propose their own solutions. Indeed, lots of traditional societies –
 also in AAD intervention zones have developed coping strategies and techniques, allowing them
 to deal with extreme situations of water scarcity or land degradation. Ideally, inventorying and
 discussing them could have meant the start of more structural processes of changing the mindset
 of people/beneficiaries.
- 178. Private sector and marketing strategies. In AAD's African countries, private sector operators were basically only called in to assist/supervise beneficiary communities on the respective intervention sites with ploughing and land preparation in general, direct seeding, planting of seedlings, and oil/soap making (and in Senegal, plot fencing). The private sector was not seen to invest directly in land restoration and was not called in to be a part of the value chain development. The Niger mentioned raising awareness through community radios, plus advisory support and service provision by economic operators and artisans. In Haiti, private sector operators supplied tools, sand, transport and nursery bags.
- 179. Overall, the marketing success of forest products is influenced by the species planted, project location and staging of the project to ensure a continual supply of forest products to customers, among others. In many instances, developing the demand side of value chains, and the marketing of forest products is typically not included in government, or donor-funded reforestation projects. It seems that insufficient consideration is often given to final products because harvest, which is generally more than ten years from the time of planting, is generally outside the typical project funding horizon of three to five years - another reason not to go for projects that have shortterm horizons, but instead use a programmatic intervention logic and approach. Both household demand and prevailing market conditions for timber and non-timber forest products influence the success of reforestation projects. For example, implementing a reforestation project in an area that has low excess demand for forest products may lead to oversupply, driving forest product prices down and undermining the economic viability of the project. However, an excess supply of local demand also creates the opportunity for new livelihood opportunities based around excess timber (e.g. additional sawmilling, value-adding activities such as furniture making and biofuel). Unfortunately, little information is available on the size and stability of the markets for timber and NTFPs in the rural regions of developing countries in general, and maybe even more so of dryland areas. When good markets exist for products such as poles, firewood, fruits, and seeds and their derived products, farmers have an incentive to plant trees. Where the areas being rehabilitated

are isolated from markets, harvested products should be of sufficient value to permit long-distance transport (also look at the ratio of volume/unit price: with low volume, high value combinations being ideal). Alternatively, local processing/value adding needs to occur. Knowledge of markets for timber and other forest products and services is also important for successful reforestation. Documenting and sharing this type of market information should be seen as an activity that should be financed by AAD-like projects and be part of the "enabling environment" that will help sustainable NTFP value chain development. With the current availability of low-cost mobile phone services and the widespread use of social media, there is no longer any excuse not to be aware of (NTFP) market trends. A known market (and especially an improving market) for forest goods and services will lead to a greater incentive among local communities to plant trees, especially if no supplies from natural forests are available.

- 180. In summary, overall, adoption and use of proposed technologies were satisfactory during project implementation, albeit with differences between countries and although sometimes slow in coming. In the cases where the income-generating activities centred on a number of NTFPs were successful, enough funds were made available to pay for socioeconomic infrastructures that brought visible changes in at least some aspects of the people's livelihoods.
- 181. However, the lack of evidence of appropriation of project activities following/as a result of the project's top-down approach (as opposed to bottom-up involvement, priority setting and intervention orientation decision-making); the focus on the technical aspects of implementing SLM/forest and landscape restoration (FLR) activities in the absence of any business/financial plan that could have guaranteed sustainability beyond project completion; low consideration of income-generating activities that were clearly considered secondary to reaching land restoration targets; and overall uncertainty about sustainability, etc. pose questions on sustainability, as will be further discussed.

Evaluation question 2.3. To what extent has the project enhanced knowledge and awareness among the key target audiences and stakeholders from the European Union and ACP countries regarding causes and appropriate measures for combating desertification and land degradation, and improving resilience to climate change while promoting sustainable livelihoods?

Finding 12. The project produced advocacy materials for communication on a large scale and targeted broad groups of stakeholders through different media. The communication efforts were anecdotic and ad hoc with no clear strategy linked to a clear vision. As a result, key target audiences and stakeholders from the European Union, but more so in ACP countries, are hardly aware of the project's existence, activities, or achievements.

182. The project produced some advocacy materials that were communicated on a large scale, but this is different from what was foreseen in the initial logic framework, i.e. "producing sound technical and scientific data to help draw a clear picture of challenges and solutions of FLR in the target countries." Right from the start, and using different media, the project communicated its activities to a broad group of stakeholders at different levels, both within its geographical intervention area and beyond, putting an emphasis on the causes, possible remedies and measures for combating desertification and land degradation, and how to improve resilience to climate change. However, it is evident that there was no clear strategy that would have allowed it to reach a broad public on a consistent and continuous basis. At best, communication on its approach, activities, outcomes and impact, and on more generic issues such as SLM, drylands and/or desertification, has been anecdotic and ad hoc, lacking a programmatic, goal-oriented approach, and not deriving from a clear vision on who to reach, through which type of messages, with what frequency and for what purpose.

- 183. The project lacked a dedicated person who could implement and adapt a communication strategy, and also systematically keep track of who uses what, how and when. Specific issues that should have been addressed include compliance with General Data Protection Regulation (GDPR) rules when elaborating communication products, elaborating and implementing a "data management plan" that would have allowed for sharing data beyond mere project boundaries and creating more openness and transparency; it would also have allowed for confronting the project's findings with those of other/similar interventions. Having, and clearly communicating on an open access policy would/should allow for making research outputs available online, and free of costs or other access barriers. When open access is strictly defined, by applying an open license for copyright, barriers to copying or reuse are also reduced or removed.
- 184. Due to the non-optimal results in the communication efforts made by the project, key target audiences and stakeholders from the European Union, but more so in ACP countries which were supposedly among the target audiences, are hardly aware of the project's existence, let alone its activities, achievements or impact as can be inferred from, for example, the low number of visualization of videos that are available online.²³ It is unclear how the project's outcomes or messages have influenced awareness in the stakeholders about the root causes of desertification and land degradation. In a number of countries, however, the project was able to inform and support policy makers in their efforts to develop intervention strategies addressing D/LDD.

Evaluation question 3. Output level – Efficiency and coordination. To what extent were management arrangements appropriate to deliver efficiently the project?²⁴

Evaluation question 3.1. To what extent did FAO deliver on project identification, concept preparation, appraisal, preparation, approval and start-up, oversight and supervision?

Finding 13. Overall AAD implementation was in line with what was presented in the initial project (identification) models. Progress on implementation and delivery could be/was monitored through FPMIS, albeit information was not always updated. Little information is available on identification, concept preparation, appraisal, preparation, approval and start-up, whereas oversight and supervision were often slowed down because international coordination was understaffed.

The FPMIS access on 10 July, 2021 showed that the last available information referred to April 2018. In conjunction with the centralized FAO model of managing and administering (more specifically "global") projects, all of these resulted in the often untimely implementation of project activities. The latter was worsened by changes in international coordination. The terminal report states: "The implementation of the project began late, owing to delays in certain processes. Staffing issues, security risks, and natural disasters caused further delays; however, these issues were eventually resolved", but does not clearly state whether implementation was satisfactory or not. It can only be inferred that the participants in the project were satisfied with its performance.

Evaluation question 3.2. To what extent were the financial and human resources allocated by FAO appropriate to support the implementation of the AAD strategies, approaches and planned results?

185. The evaluation cannot provide an evidence-based response to this evaluation question. The evaluation did not have access to the project's financial data or to cost estimates from other

42

²³ See FAO (n.d.) for FAO's website pooling of some AAD promo materials. "Action Against Desertification" on YouTube yields some 10 short presentation movies: a few of them that target Burkina Faso have gotten several thousands of hits, while all the rest have only gotten hundreds. These (low) figures would allow us to conclude that the project only gets limited exposure through these media. However, in the absence of rigorous research into concrete outreach numbers with a broad range of (suspected/intended) target audiences, we can only infer what the impact might be.

²⁴ Several aspects of the management arrangements were already presented earlier in this report.

organizations that would allow for a proper understanding and assessment of the restoration costs per hectare.

Evaluation question 3.3. To what extent were the management arrangements, M&E and governance structure of the project adapted to deliver the expected and intended results in an efficient manner?

Finding 14. Overall, management arrangements, M&E and the governance structure of the project fell short of delivering the expected/intended results in an efficient way.²⁵ The MTR findings came too late, thus recommendations were not addressed/taken up or implemented, whereas the project should also have taken up preparation and implementation of an exit strategy, together with better-focused and more intense capacity building.

- 186. Management at the country level and the relationship with global coordination. An issue that was not considered enough by AAD is that managing an AAD-like project by grassroot stakeholders brings additional workloads to respective regional or national governance levels, and that these were not always remunerated or equipped to deliver adequately.
- 187. In the specific case of Africa, the respective coordination roles and prerogatives of international coordination in Rome and the AUC African Hub of the GGW were not always clear. If they were, it would seem that, for a number of reasons, the AUC African Hub lacked the necessary capacity (and equipment) to deliver the expectations and institutional arrangements, so that international coordination often felt obliged to take over some of the management and organizational activities. This clearly slowed down implementation at several levels.
- 188. More in general, some country PMUs were better equipped (both in quantity and quality of personnel, and hardware: Burkina Faso and the Gambia) than others to be able to properly implement the project. Also here, international coordination felt it had to intervene and take over some of the responsibilities and initiatives that normally should befall country offices. Even where country offices were properly established, many coordination offices and officers are/were not necessarily familiar with FAO (and European Commission) management and reporting rules. In this context, the keywords are: (lack of) leadership, (lack of) proper competencies and (lack of timely delivery of) equipment.
- 189. Some stakeholders feel there were too many layers of reporting, making the whole system heavy, burdensome and unnecessarily slow. In the absence of accountability and delegation of decision-making to decentralized levels, the lack of clarity in reporting and transparency in communication created a sense of disconnection between central and respective-country authorities, whereas even at the level of FAO-Rome itself the project did not always maximize on the opportunities of collaborating with, and getting assistance of in-house, technical support units: "the project was felt to operate a bit separately from the rest of FAO."
- 190. Flow of information both from headquarters to respective PMUs in the field, and vice versa, could/should have been smoother, more proactive and informal/"organic", and especially more transparent. Some interviewees pointed out that central coordination could have benefited from a structure operating through a team of interchangeable experts for smoother, more continuous implementation. During the MTR, the same was evidenced for country PMUs where very often few, or no institutional arrangements were put into place to allow for a continuous flow of activities, resulting in dependence on specific individuals. In other words, the institutional set-up in place, with government and FAO staff (both from headquarters and countries) did not prevent

²⁵ See the extensive discussion under section 2.4..

²⁶ Taken from 2021 interviews with key stakeholders.

- the project from stopping in the absence of the individual in charge, leading to delays in implementation.
- 191. Global projects such as AAD should follow a subsidiarity approach and invest in inclusive management at respective country (or regions) decentralized levels, with actual involvement of national/regional coordinators. When this is well conceived, it should not divert additional resources from the project's main activities, as only decision-making and responsibilities would be decentralized.
- 192. Delivery and field management. Untimely delivery of heavy tractor equipment and two of the four Delfino ploughs towards the end of the project, and partly explained by difficulties to get them procured from the only provider, i.e. Nardi firm/factory explains why land preparation only started very late into the project. This is to be deplored, as AAD's intervention model in the countries concerned hinged on the availability and use of this heavy machinery. Additionally, ploughing timing follows a typical calendar, starting after harvest and with the onset of the dry season (December/January) and ending before the rainy/planting season (May/June), so that late arrival of the equipment results in losing another year.
- 193. Competition between AAD-activities and the "normal" agricultural and off-farm incomegenerating activities of the target communities created conflicts in labour force allocation that often had a negative impact (on either of both, but mostly on AAD activities that were not necessarily felt to have a direct bearing on survival or guarantee food security). Consequently, land preparation/ploughing was often behind schedule, thus often slowing down planting activities.
- 194. In some countries, the final restored area is less than what was initially projected/planned (Ethiopia and Nigeria). In other cases, capacity building and training sessions were behind schedule and did not always follow a logical sequence (most countries). Sometimes, processing equipment arrived before beneficiaries were trained on their correct use, or overall management of an NTFP-processing unit. Burkina Faso highlighted that the beneficiaries are still waiting for delivery of the processing equipment that was acquired by the project.
- 195. Monitoring and reporting. As mentioned earlier, there was a lack of structural imbedding and use of baseline data to monitor progress (basically for timely delivery of baseline study results). The MTR was only performed towards the end of project implementation (i.e. seven months before the initially planned time of project completion). The MTR could/should have led to a resizing and redefinition of targets, and project orientations, and the one year no-cost extension should/could have been used to at least test some of the suggested alternatives. Presumably, late signing of the one-year extension did not allow for proper incorporation/addressing or implementation of the recommendations.
- 196. This whole situation was aggravated by the advent of the COVID-19 crisis during the last phase of the last, no-cost extension year that resulted in a complete standstill of project activities, and at a moment where a final land restoration intervention should have prepared a last plantation run under the project. In most countries, remaining budgets and means were prepared and set apart, respectively, and activities that had initially been planned to be executed in 2020, would/should have been executed in 2021 under the guidance of the respective national (former) AAD-PMUs.
- 197. Overall, it was felt by most stakeholders that the project governance structure did not allow for attaining the intended results in an efficient or timely manner.

198. Steering Committee. As explained above, though the Steering Committee's (SC) constitution and mandate were clear to all members with regard to the advisory role of this platform, SC meetings left an unsatisfied feeling with most stakeholder participants who felt left out of decision-making processes.²⁷ Oftentimes individual countries' progress reports were late in being delivered, whereas most were just factually reporting on numbers and amounts, without digging into actual process approaches, problems and possible solutions. This lack of depth in reporting is clearly a point of attention that should be addressed in the future, but it can also be explained by the institutional problems in the governance model that was used.

Evaluation question 3.5. To what extent have the involved stakeholders owned AAD's processes and progresses?

Finding 15. Lack of ownership at several levels within the project's management and organizational structure are presumably some the major problems that might explain why there are doubts about (the sustainability of) the project's interventions and benefits that the beneficiaries will continue to accrue beyond the implementation horizon.

- 199. The Sahel terminal report mentions close consultations with, and involvement of communities in design, implementing and monitoring, close work with subnational administrations, and participatory capacity building involving these and other relevant stakeholders as drivers of ownership.²⁸
- 200. On paper, the project had the right strategy mapped out. The reality on the ground, however, showed that only in a few countries was there a consistent emphasis on sensitizing and training beneficiary groups on issues of ownership (Burkina Faso and the Gambia). The PMUs focusing on first sensitizing communities on the thematics and problematics of desertification and climate change-operated land degradation, and then building human capital and institutional management capacities at grassroot levels during inception and thus before starting any concrete project interventions (Burkina Faso and Ethiopia...) were most successful in reaching quantitative (numbers of trained individuals, groups, committees...; successfully restored surface areas; numbers of planted and surviving trees; increased income levels...) and qualitative results (built strong, well-performing national/regional/grassroot institutions; reinforced enabling environment policies; increased perception and confidence that local communities can indeed shape their own destiny, and fight desertification and restore land that was changed through the intervention) of the goals set out before the start of the project.
- 201. From the data and figures provided, however, it is not clear whether these training sessions were repeated, deepened and consolidated by follow-up training sessions. From interviews with different-level stakeholders, this specific issue seems to have been mostly taken for granted, and ownership was expected to come spontaneously and automatically, not as an attitude or process that must be instilled and subsequently nurtured.
- 202. "Spontaneous" uptake by beneficiaries and scaling-up interventions that the project initiated in the respective project zones did not occur, or hardly ever. No proper and adequate financial mechanisms at the community level were put in place to allow for mobilization of the necessary funds to co-finance investments, and subsequently manage and maintain the interventions and hardware/restoration plots. The same can be said about the processing and other incomegenerating activities. In a limited number of cases, there was evidence of grassroot-level buy-in,

-

²⁷ Presumably, the name of this advisory board should have been more clearly defined, as the words "Steering Committee" obviously contains a decision-making element that was not reflected in reality.

²⁸ The terminal report mentions "ownership" on pages 27, 29 and 32.

and the creation and functioning of institutional arrangements that allowed for activities that were started under the project to continue after the latter had stopped.

- 203. In the specific case of Burkina Faso, it had been hoped/expected that the project would have connected with the country's formal system of decentralized governments, i.e. village and provincial authorities, but AAD's activities did not get integrated into these levels' development plans. According to 2021 evaluation interviews, there would be an interest, and firmly felt need, to see how (such) project plans could be integrated and become a structural element in these administrative levels' development plans for greater sustainability. Clearly, the assumption here is that linking up with decentralized levels (that are close to beneficiaries and even co-managed by them) and embedding project activities in a wider development context will automatically increase the chances of sustainable continuation of project activities beyond intervention duration.
- 204. However, the institutional template used reflected the lack of flexibility in/of FAO's centralized, global project management model. As a result, there was hardly any role for national partners/PMUs, or beneficiaries to co-manage project planning and implementation. This resulted in limited buy-in and ownership at both (and intermediate) levels, and thus limits or even precludes sustainable continuation beyond project termination.

Evaluation question 3.6. What is the added value of the AAD partnership/implementation set-up, particularly in the context of multiplication of SLM-based initiatives (AFR100, GGW, Bonn Challenge, etc.)?

Finding 16. A number of initiatives that are in line with and/or got inspiration from AAD (on the basis of both shared success stories and active lobbying work by international project coordination) were initiated and launched during the project's implementation, or were at least presented to the international donor community (that has pledged millions of euros to address land restoration, especially in Africa's GGW area).

- 205. Project task force members reported the following as initiatives that have been inspired by and/or are in line with AAD:
 - i. the AFR100 initiative under the New Partnership for Africa's Development (NEPAD) with the support of many partners, including the World Resources Institute (WRI) (WRI, n.d.; AFR100, n.d.), the International Union of Conservation of Nature (IUCN) and *Deutsche gesellschaft für internationals zusammenarbeit* (German Cooperation Agency [GIZ]), as well as other technical partners such as FAO that contributes to the Bonn Challenge;
 - ii. the African Resilient Landscapes Initiative (ARLI);
 - iii. the African Union's Agenda 2063;
 - iv. the SDGs and other targets;
 - v. the GGW itself, that gets further support and promises for funding; and
 - vi. the Bonn Challenge (started in 2011, but with more recent spin-offs and regional implementation platforms that are emerging around the world.
- 206. Overall, however, there is no clear answer to this evaluation question, and it seems that it would be difficult to get one. After reviewing the enormous number of SLM initiatives that have been planned and/or deployed over the last years, it could be concluded that the SLM world is messy, with many donors, often intervening in the same countries with different procedures, rationales, objectives... with little coordination among them. Even for someone familiar with the SLM world, it is hard to have a clear understanding of who does what. In that context, responding to evaluation question 3.6 is challenging. In most project documents, there is a tendency to present a nice picture of the situation, where all donors/initiatives/projects would smoothly fit into a

- complex puzzle. In reality, it is often more like a big mishmash of projects that are frequently launched in a hurried way and without any real coordination, because SLM/FLR is in fashion and a donor cannot miss this train.
- 207. AAD itself worked on resource mobilization for SLM and restoration by bringing in alternative donors that in some cases had specific interests in supporting SLM in specific countries. It was successful with the BRIDGES project, a subset/under AAD, which is funded by the Turkish government to support similar GGW interventions in Eritrea, Mauritania and Sudan (FAO, 2017). The AAD has been behind the success of mobilizing readiness funds and TCP facility funds to prepare full proposals in Burkina Faso (readiness was approved in early 2018), Mauritania and Sudan.
- 208. As FAO is a GCF-accredited institution, AAD's international management team submitted a programmatic approach for the GGW restoration programme (under the 2021–2030 UN decade of restoration). According to the Project Task Force, the AAD approach was instrumental in developing four readiness proposals of concept for large-scale restoration projects under the GCF, in consultation with GGW national agencies and coordination units, and national designated authorities. Countries in North Africa, the Sahel and the Horn of Africa are the focus of these proposals. The AAD supported the development of the first GCF funding proposal that got approved in 2020 and will be operational in Sudan (Gum Arabic for Adaptation and Mitigation in Sudan [GAMS]) in the framework of the GGW programme. Furthermore, FAO, in collaboration with the PA-GGW, and AUC and GCF national designated authorities, is developing a regional proposal for the Sahel for scaling up the resilience of Africa's GGW, building on the successes and lessons learned from the AAD. The concept note was submitted to the GCF Secretariat in 2020.
- 209. Several other projects have benefited from AAD's presence and then selected AAD countries to implement their activities in a co-funding and complementarity form with AAD. These include the FFEM-funded projects in Burkina Faso and the Niger (FFEM, n.d.) (with implementation starting in 2018), and both the Global Pastoralist SLM project funded by the Global Environment Facility (GEF) and the Pastoralist Hub funded by Germany, also in Burkina Faso and the Niger. Other proposals were developed and submitted to the International Climate Initiative (IKI) in Germany for funding in Burkina Faso, Ethiopia, Fiji and the Niger.
- 210. Large restoration commitments such as the above-mentioned ones provide great opportunities and important platforms to expand and scale up the AAD model to respond to climate change adaptation and mitigation programmes. According to the Project Task Force, in all these instances, spin-offs took inspiration from AAD's community-based approach with a clear focus on livelihood improvement and income generation from NTFP processing and marketing, and successful large-scale restoration of degraded land through mechanized land preparation using Delfino ploughs. Given that the land restoration challenge is enormous, with a few hundreds of millions of hectares waiting to be prepared and planted with trees and shrubs, there is a clear need to multiply the efforts and use large-scale approaches such as those advocated, tested and confirmed by AAD.
- 211. As presented above, in some places these large-scale operations will need to be complemented by smaller-scale, hand-implemented water harvesting and land restoration interventions. In cases where there are vast expanses of land waiting to be developed, and in the absence of any Delfino ploughs (or heavy-duty tractors), it may be useful to use subsoilers, or rippers to scarify the soil (even superficially), as this has been shown to promote water harvesting, whilst also bringing to life the seed bank that is present in most soils.

Evaluation question 4. Equity/gender. How have gender equality and human rights issues been addressed in project design and implementation?

Evaluation question 4.1. To what extent were gender equality and human rights considerations reflected in AAD design and implementation?

Evaluation question 4.2. To what extent did women, youths and other groups, such as the disabled, elderly and displaced participate in AAD planning and implementation?

Finding 17. Apart from the "Number of beneficiary rural farmers (50 percent of whom should be female) with increased income", there were no specific gender or other target-group indicators in the M&E system (as evidenced from the project's logframe). The M&E system did not allow for capturing vulnerable group-disaggregated data (with a focus on women, youths and the disabled), nor was there a special vulnerable-group focus beyond what could be expected.

- 212. During the MTR, it was mentioned that women, youths and vulnerable groups had been specifically "targeted" in all project documents (initial project document and annual work plans) and were part and parcel of the project approach which is both gender/diversity-aware and gender/diversity-sensitive. AAD acknowledged and started from the evidence that women, youths and the disabled are genuine community members and should thus also benefit from the project in terms of capacity building, labour contracts for restoration activities, borehole infrastructures, memberships in implementation and management committees, etc.
- 213. However, this position was not reflected in the concrete intervention logic, where there was only one M&E indicator referring to women ("Number of beneficiary rural farmers (50 percent of whom should be female) with increased income"), and there is no further evidence that AAD actively took into account, questioned, or went against prevailing customary habits regarding women, youths and/or the disabled. Instead, it rather confirmed traditional, culturally determined structures. Moreover, like the young and vulnerable, women remained underrepresented in project coordination and management offices at all levels [sic terminal report wording], and lots of community management and steering committee units, with the exception of those instances where they are the sole interested/active party (i.e. NTFP value chain groups).
- 214. Land tenure and women. The specificities of land tenure issues for women were not, or only inadequately treated in the project, whereas this should have been a major concern for AAD. Indeed, ensuring the sustainability of SLM/FLR activities requires a clear positioning on, and minimum securing of land tenure issues. In general (in Africa but also elsewhere), women do not inherit or "own" land; at best, they are granted access to the land, either through their fathers (young women), husbands (married women), the brothers of their husbands (widows) or through their married children (old women). This ultimately means that women may only draw limited direct (and financial) benefits from FLR activities. There are exceptions, especially when projects/NGOs are actively promoting women's rights and "pushing" traditional rules to create land rights for women (e.g. creation of fenced gardens, lowland rice perimeters, etc.). However, in general, rules are not favourable for women, and AAD did not particularly push to challenge this.
- 215. Internally displaced people. In the last two years of the project, social insecurity worsened. These issues compelled groups from Burkina Faso and the Niger to leave their villages and try and source whatever natural resources were available. The project failed to address (but presumably cannot be blamed for that) this specific problem of internally displaced people. Especially in Burkina Faso, where they were evidenced to collect forage and dead wood from, and also to plant crops on, project-developed sites. Providing training opportunities in both soft (organizational) and technological skills to vulnerable groups, should help them attain the necessary competence to successfully engage in both improved land management, and generation of income. From the figures on the nature of the beneficiaries that received training through the project, it is difficult (and basically impossible) to make out who got what kind of training, or whether this specific group received any at all.

- 216. NTFP value chain development and women. AAD was promoting NTFP value chain development mostly via women's groups that would use restoration and reforestation trees/shrubs' byproducts for value adding and commercialization. There are, however, not many examples of groups that had been fully equipped and operational for a while, so it is too early to conclude whether the model used here was successful and would be valid and transferable.
- 217. According to the terminal report, many of the project's activities, particularly those on NTFP, allowed AAD to provide opportunities for decent work to project beneficiaries, especially women and youths (thus responding to concerns related to the Human Rights-Based Approach (HRBA) in particular, Right to Food and Decent Work). Whereas gender equality was clearly included in AAD's design and addressed during implementation, human rights considerations were not a prime concern, or focus of either design or implementation. Since AAD mainly starts from a technological logic to address livelihood improvement through reforestation with tree and shrub species producing NTFP, and because the project seemed to have a relatively low consideration for the softer aspects of restoration, these gender/diversity issues were lower on the priority list.
- 218. In the specific case of women, most NTFP and other related value chains are driven and managed by women, so for this project component they are specifically targeted. Haiti considered 40 percent of direct beneficiaries to be women (of a total of 6200), whereas (only...) 30 individual women were to be supported with NTFP-processing equipment. Also in Haiti, 3000 vulnerable farmers hit by Hurricane Mathew received maize, beans and vegetables. Young people made up 30 percent of farmer field school participants, whereas 70 percent of the 36 facilitators were out-of-school youths. In the letter of agreement (LOA) with the *Université Nouvelle Grand'Anse* (UNOGA), five (young) graduate students prepared and defended their final thesis on the creation of a regional herbarium, as reference for AAD's intervention work. However, in the project's intervention area in Haiti, there are not many employment opportunities for women/youths. In order to improve their position in the community, the project strengthened their technical capacities to diversify their income and achieve greater autonomy.
- 219. Most, if not all countries tried to reserve a special place for women and youths in the capacity-building exercises: e.g. in Nigeria, out of 86 participants in two training programmes, 18 were women and 31 were youths, i.e. 21 percent and 36 percent of the total attendants, respectively (figures for the end of 2018 situation). Overall, women and youths got a fair share in trainee numbers in the project, but they are never represented pro rata of their presence in the community. As such, "vulnerable groups", and especially the disabled, do not clearly appear in any of the tables provided by project coordinators.
- 220. At the level of involvement in project implementation committees (PICs), the Nigeria case showed that out of the 147 PIC members at local government and community levels, (only) 26 (or 17.7 percent) were women, while all 41 members of the Community Watch Groups (for restoration site protection) were youths. The picture in most other countries is quite similar: a gross underrepresentation of women and youths in planning, decision- making and management committees, and total absence of data on representation/presence of the disabled or elderly. As such, this situation is a reflection of each AAD country's culture, as most are male-dominated societies where the elderly always tend to have the last say; they decide everything and do not allow youths or women to have their say in, or interfere with decision-making, as women should be followers, not leaders. In a number of cases, this male, patriarchal dominance pattern is reinforced by a religious or traditional leadership system that is also vested in men (imams/priests) in some places, local political and religious leadership even come together in the same persons, or families, whereby these power positions are maintained and passed down over generations.

3.3 Sustainability

Evaluation question 5. Sustainability. To what extent are the results achieved by the project sustainable?

Finding 18. Overall sustainability of the project is questionable, even though the project did its best, within its own logic, to put into place all necessary, formal mechanisms to create the necessary conditions to guarantee sustainability. The PMUs were not properly prepared/equipped for take-over, or institutionally imbedded in structures that could continue the activities. A lack of provision and teaching of the necessary financial mechanisms, both at national and grassroot levels will, in a number of countries, prevent durable follow-up and maintenance of physical and organizational structures set up by the project. As a result, now that the project's financial and organizational supports have ceased, sustainability beyond the life of the project is questionable.

- 221. At respective/individual/national PMU levels, sustainability was not specifically addressed. Project implementation was entrusted to national GGW authorities, or line ministries, and personnel from the latter detached to join project PMUs. Long-term planning on what structure and who would eventually take over the responsibility of following up on activities initiated under the project was not part of the set-up. Individual PMUs were trained on how to manage and report on the project, and thus learned how to comply with formal planning, budgeting and reporting issues, or in other words, form over content... The PMUs therefore did not acquire the necessary skills or an attitude that would have allowed for going beyond the formal aspects of complying with contract agreements, and this clearly spilled over to the lower stakeholder levels.
- 222. This situation was aggravated by the fact that national coordination offices often lacked the necessary staff to be able to provide, plan, implement and monitor all of AAD's different components (Fiji, Haiti and Senegal). In a number of cases, consultants assisted the country offices, but these individuals were often felt to lack commitment, whereas the continuity of activities was not always guaranteed by having short-term personnel on board.
- 223. The evaluation questions that follow further elaborate on other sustainability aspects.

Evaluation question 5.1. What are the prospects for the ultimate beneficiaries of the project (community members) to sustain the results achieved after completion of the project?

Finding 19. The project did not properly sensitize communities before the beginning of implementation. This resulted in an almost complete absence of ownership. In the absence of provision of sound institutional and financial mechanisms that would have equipped local community groups with the necessary skills and means to sustain project-initiated activities, it is highly questionable that the latter will be continued after project completion, or that the project infrastructure will be maintained or continue to be managed, let alone be scaled up.

- 224. Beneficiaries' ownership. The project implemented the activities as initially foreseen in the overall and respective yearly planning agendas, counting on "spontaneous" uptake by beneficiaries. As a result, beneficiaries often were (considered to be) mere executioners of activities, not true partners in project implementation, nor were they trained in or equipped with the necessary institutional, organizational, or financial mechanisms; if they had been, that would (have) allow(ed) them to take over and/or continue to manage the project's interventions.
- 225. At the grassroot beneficiary level, the project had foreseen building institutional and technical capacity to allow beneficiaries to collaborate with the project, take initiatives and help manage project interventions, and eventually continue to do so after project completion. In all countries, and after the project started, numerous consultations and dialogues were held with relevant stakeholders at (local) government, intervention zone and community levels to secure their

engagement, buy-in and ultimate ownership. What was basically lacking in most cases, however, was a true sensitization phase on the issues the project was going to address. The lack of beneficiary sensitization before the start of any concrete project-led initiative resulted in an almost complete absence of ownership, or buy-in, which precludes any chances of long-term sustainable continuation, take-over of AAD-initiated initiatives or local community-led scaling up of interventions later on.

- 226. NTFP value chain groups. NTFP value chain groups that currently still depend on wild-collected resources and which will only be able to source NTFP from project-planted trees/shrubs when the latter will have attained production-level maturity, will probably maintain some level of activity, as a number of them were already active prior to the project's advent. However, the lack of attention for the demand side, and thus markets, of value chains will preclude the latter from becoming structurally profitable, and therefore sustainable over the long term.
- 227. Sustainability in AAD communities. When specifically interviewed on the chances for AAD activities to be continued after project closure, village(r)s in most countries/intervention zones seemed to be confident it would work out OK, without, however, providing any clear mechanisms on how this would be done:
- 228. In Burkina Faso, interviewees say they are committed to continue protecting the reclaimed sites and maintaining the good practices they learned from the project for water and soil conservation and restoration, and valuation of non-timber forest products. They underline that abusive cutting of trees, land pressure and the straying of animals remain major challenges to be met.
- 229. In Ethiopia, local communities want to continue the activities started at the project sites. However, they emphasized they would still need financial support and were expecting "someone" to provide continued institutional and individual capacity development; also here, free-roaming animals are perceived to be a problem.
- 230. Fiji thought beekeeping and (sandalwood) tree planting would continue, provided there would be an adequate, continuous supply of seeds/seedlings, whereas honey marketing was also not seen as being secured. Leadership, or the lack thereof, in combination with the short-term time perspective of local populations were mentioned as the major problems that would/could prevent activities from being sustained.
- 231. The Gambia had the clearest idea on how the gains of the AAD project would be sustained, and hereby confirms what already became evident at mid-term: they established a system of community resource mobilization (savings and contributions in kind) that was supported by community training and capacity building to further create awareness and ownership. Perceived challenges here are honey marketing, where the role of middlemen is questioned; the lack of transport facilities to go and police/patrol the newly planted sites; and reliable water supply to support beekeeping and plant nursery activities.
- 232. Haiti admits that continuation beyond project financing will be difficult.
- 233. The Niger believes activities will continue "due to the increased awareness of communities with the improvement of incomes". [sic]
- 234. Nigeria "agreed" to continue, even in the absence of any support from AAD, and counts on doing this through community management committees, but fears that poverty and lack of water (~nurseries) might be limiting their ambitions.

- 235. Senegal claims activities (especially those targeting women) will continue, if and when the Delfino plough is operational, and herb seeds will be available.
- 236. The fact that the project gave out a lot of hardware for free – free equipment to women processing groups, free nursery/planting materials and inputs, free fences (although paid by the GGW authority, the perception with beneficiaries may be that "the project paid for them...) - and the complete lack of transparent financial accounting that would (and should) involve all stakeholders, the absence of cost-benefit analysis, and the lack of personal financial contribution in any of the activities initiated/managed at the beneficiaries' level (although they contribute land and labour that are part of the costs and would/should be part of such analyses...) all concur to maintain the institutional, financial and developmental status quo explaining the lack of accountability prevailing in the project countries and zones. Especially the fact that beneficiaries are not coresponsible for defining orientations and the lack of participation in transparent decision-making in general precludes organizational and financial sustainability. In this respect, Ethiopian AAD partners suggested having local communities contribute up-front to project interventions to a percentage of the total cost (suggested rate: a minimum of five percent - matching funds) to show commitment and increase the chances of success of project interventions, which could indeed be part of the solution.
- 237. Motivated individuals or groups. Only in a few, accidental cases was it possible to find motivated individuals and/or at a more institutional, structural level management committees that had taken up and appropriated project ideas and approaches, and that were capable and willing to involve themselves in continuing to maintain project activities beyond AAD intervention duration, or even use the activities' proceeds to invest in new initiatives that are not necessarily in line with, or that follow AAD's intervention logic (e.g. the case of Moumouni Nouhou, President of the *Unions des COGES de Tera*, the Niger). In this respect, it is to be deplored that the project had no policy of institutionalizing or supporting stewardship (where it existed), or in other words did not more actively look for success stories driven by "institutional champions of change" who could have acted as a role-models for AAD's target behaviours, facilitated community discussions, involved themselves and helped with promoting AAD's core rationale and objectives.
- 238. Private sector. In Senegal, carbon credit money earned by the state is at least partly passed on to grassroot beneficiaries involved in planting and managing plantations. One other possibility to bring more money to beneficiary communities could (or rather should?) come from increased private sector involvement. Indeed, the few cases where farmer communities continued to protect their plantations and were able to maintain and repair infrastructure and hardware, either within AAD itself (Burkina Faso, the Niger and Senegal, as evidenced during the MTR) or outside, in the wider intervention zone, were basically cases where markets for grass/herbs for fodder (and to a lesser degree NTFPs) were secure, structurally well-established, and paying good prices for goodquality products. In those cases where a private company was/could be involved, success was/could even be higher. This is illustrated by a case (not within AAD), involving the Aduna company (Aduna, n.d.) that shows the way forward in sustainably and structurally consolidating reforestation and replanting, but also value chain functioning. The assumption here is that by securing the supply side of value chains, i.e. quaranteeing a market for (in this case) NTFPs, producers (here project beneficiaries who engage(d) in the processing of NTFPs) will be motivated to continue processing and planting - given they will be sensitized and convinced that planting and protecting trees/shrubs that provide the raw materials that would feed into their NTFP value chains is an activity they should actively take up. As it is, AAD with its focus on providing technical support and capacity building, emphasized the supply side aspects of a number of NTFP value chains, but "forgot" to secure the demand side.

239. This project was about technical interventions to restore land and fight desertification, but, apart from some exceptions, overall, it forewent the developmental aspects that go together with these kinds of investments, and are a necessary condition to have them last and make them replicable.

Evaluation question 5.2. What are the prospects for the country-partners and GGWSSI coordination to sustain the results achieved after the completion of the project and, in particular, scale up the initiative without the project's support?

Finding 20. Institutional in-country partners, and – in Africa – GGWSSI-coordination units, were not specially/specifically prepared for project activity take-over, nor were there any firm (politico-institutional) mechanisms set up or concluded arrangements that would guarantee sustaining and/or scaling up project results after the latter's completion.

- 240. Institutional and financial support. In several countries, GGW-authorities pledged their commitment to continue to support AAD-assisted beneficiaries. However, in the absence of any beneficiary-level financial mechanism that would sustainably and recurrently bring in financial resources for repairs and protection of replanted surface areas, and further investments in replacement and extension planting, the odds are there that management of AAD plots will soon stop (see the MTR that documents failure to repair fences in Senegal).
- 241. Alternative, recurrent financial incomes could come from selling carbon credits that could be a more sustainable way of generating income than depending on the proceeds of fodder or NTFPs, although the latter have been shown to be able to create at least some form of income.²⁹
- 242. Other financial constructions, such as the ones being elaborated under the Green Climate Fund, should/could provide loans to governments that would then elaborate the investment and expenditure plans and allow for land restoration, reforestation and NTFP development. These should yield both carbon credits and financial returns from marketing NTFPs that would both be taxed, and feed back into the national accounts, allowing governments to repay the loans. This policy blueprint could be adapted to, and where necessary, modified to fit into each country's sovereign policy environment. The validity of generating carbon credits, and thus structural finance, from planting trees is still under debate and proof of concept is considered by many to still be weak. Although the system will also have to stand the test of time, the idea behind it remains valid and should be an element that provides a recurrent monetary revenue to governments' budgets that would allow them to continue to invest in land restoration and reforestation.
- 243. Delfino ploughs. In four countries, the project repaired, serviced, or bought and equipped PMUs with Delfino ploughs and their tractors; personnel were trained to operate the machines, and service contracts were passed for maintenance or repairs. However, no provision was made to ensure that the Delfino ploughs would remain operational after the project ended, even though the success of large-scale land preparation clearly depends on the fact tractors-cum-ploughs would remain functional.
- 244. The latter transfer of tractors and ploughs was mentioned by the respective AAD country, GGWSSI managers and programme coordinators to be the most tangible contribution to guaranteeing post-project sustainability, but not all of them mentioned, or saw the consequential financial burden that comes with the need to maintain and repair the physical equipment, or the

53

²⁹ The problem, however, is that the latter income is often used for social investments, and not necessarily for consolidating the (productive) investments in restoration and NTFP-processing infrastructures, or starting new restoration and planting initiatives.

- operational (fuel) and salary costs for the personnel operating the machines. This issue is also raised and confirmed in the project's terminal report.
- 245. Instead of fostering a model that maintains the dependency situation that is implicit in its institutional and financial set-up, the project should have addressed and promoted true financial sustainability at all stakeholder levels, showing alternative income-generating models geared to generating the necessary, recurrent funds that would allow for self-financing AAD-like initiatives at all intervention levels, i.e. at national budget *casu quo* GGWSSI national authority levels, but also at the beneficiary level. Because of its technical intervention focus on land restoration and reforestation, the project also missed the opportunity to build and implement sustainable management and budgeting models that would take these technical interventions beyond the mere project level.

Evaluation question 5.3. Are there sustainability strategies in place that are in synergy with other FAO initiatives, international development partners' initiatives, or country partners?

- **Finding 21.** In the absence of other FAO or other international development partners initiatives or commitments, there is no evidence of any tangible strategies in place for durable continuation of AAD-initiated activities. At best, there are a number of national governments' commitments to continue to invest money in activities that will address D/LDD. Similarly, several governments confirmed they would develop the necessary policies and create the enabling environments to facilitate setting up land restoration and reforestation initiatives, and that would hinge on/be based on/or have an element of income-generating activities.
- 246. Overall, the project did its best to provide within its own intervention logic the necessary elements to prepare for an exit strategy that would indeed have guaranteed some form of sustainability beyond project duration. In fact, this approach tallies with the definition of sustainability, which is "the ability to be maintained at a certain rate or level." However, we would question the timing of when one should address and prepare for sustainability issues. As explained in numerous other places in this report, one cannot just bring in the sustainability idea at the end of an intervention, or train and prepare people/stakeholders on the issue of sustainability if the latter's attitude has not been part and parcel of the project intervention logic right from the beginning. In this way, we would have to conclude that the initiatives highlighted hereabove are "too little, too late."
- 247. Various international partnerships (for instance with European universities) built during the project only provide(d) short-term advisory inputs that do/did not necessarily impart the much-needed support and backstopping that would allow for more permanent technical sustainability. Apart from that, there is no evidence of references to other initiatives and/or partners that were called in to facilitate the exit/transit strategies.

Evaluation question 5.4. Which, how, and to what extent could the contextual factors/actors threaten the sustainability of the project's results and their further development?

- **Finding 22.** Contextual factors that could represent an additional threat to the sustainability of the project's results include animal pressure in restoration areas (which was not properly addressed by the project), security threats and COVID-19.
- 248. Overall, it should be highlighted that, given the very diverse situations in which the project was operating, it is not easy to provide a general assessment of how the different contextual factors should be appraised and addressed.
- 249. In Africa, the physical environment in which the project was working is basically Sahelian in nature, although soil conditions and sometimes vegetation types and cover differ among countries. Fiji

- and Haiti are definitely geographical and environmental outliers. However, AAD's overall approach did not necessarily take these differences enough into account.
- 250. Animal pressure in restoration areas. The specificity of the physical but also sociological contexts and livelihoods among countries was apparently not always properly understood or taken into consideration at intervention conception, and later on, implementation. In Africa, countries differ in domestic animal pressure (i.e. from cattle, goats and sheep), with Senegal having been documented by numerous sources as having the highest figures. No reforestation effort can ever be successful if the prepared and planted area is not guarded against wandering animals, or physically protected through fencing, which is costly, out of the financial reach of local populations, and even prohibitive. Additionally, in the absence of a sustainable and mutually agreed-upon management model that would allow for peaceful co-existence and replanted-land use in the absence of fences, there is little hope that people would start their own plantings in future.
- 251. Most would agree that, in the case of Senegal, the latter fences are a conditio sine qua non for successful reforestation: it is seen as the only possible solution to the problem, as organizing communities into training and paying for guards has been shown to be difficult to impossible. In the words of the country's GGWSSI authority, "the project (i.e. FAO) did not (want to) finance it". The cost is prohibitive and not within the financial possibilities of the local populations, thus precluding any sustainable maintenance, or even up-front investment. This creates a conundrum, as absence of fencing of large-scale restoration sites clearly results in a high-risk factor that would prevent any successful reforestation. Fencing sites of hundreds of hectares is not feasible for practical and financial reasons. So, this would lead us to question the choice of large-scale mechanized restoration, in the absence of any firm agreements between migrating/transhumant and sedentary communities and/or the presence of community-paid watchmen. Instead, smallerscale, high labour-intensive restoration sites that can be managed using these same watchmen who have been assigned there and paid for by the surrounding communities (case studies compiled by the Réseau National des Chambres d'Agricultures du Niger [RECA] [National Network of Chambers of Agriculture] provide examples) could be the solution, but past experience has shown this to be very difficult or even impossible to attain in the specific Senegalese situation.
- 252. This was not considered at project conception. In this specific case of Senegal, the project should also have assisted the country in elaborating novel and innovative conflict mitigation policies to allow for elaborating sustainable solutions to (large-scale) reforestation - something that has never been conceived or implemented before. This risk was not addressed during project implementation nor were populations (either sedentary of transhumant) sensitized on how to deal with this animal pressure, thereby precluding any chances for creating long-term sustainability of the reforestation effort. In the absence of fencing, AAD's model provided for paid surveillance services by local people, which was clearly shown to be unsuccessful. The cases where fences were torn down, or where the entrance gates to the fenced area were stolen are legion, showing that populations are not all "convinced" of the need for and advantages of fencing. It remains to be seen that the income derived from selling grass for fodder (at XAF 1 000, or approximately EUR 1.4 per carload; or XAF 2 500, or approximately EUR 3.7 per van) would create enough of an income, and thus motivation, for local populations to start caring for "their" plantations. In the absence of proper sensitization at the onset of the project, and with the concomitant lack of sense of ownership, the risks are that most planted and fenced areas will end up like 99 percent of all other reforestation projects in the area, i.e. as a complete failure.
- 253. Most communities interviewed referred to plantations as "belonging to" the GGWSSI authority, or even FAO or AAD, which indicates lack of ownership/responsibility of the reforested areas.

When asked about the sense of ownership, the Senegalese GGWSSI national management authority claimed that income generated from selling grass for fodder seems to motivate populations to repair fences, but also to pay for school buildings and electrification projects. Observations during the review mission's field visits did not confirm this, however, as several cases of stolen gates (and not replaced), and broken, unrepaired fences were documented, a situation which was again confirmed during two subsequent, informal field visits in 2021 by the Evaluation Team leader.³⁰ More studies, discussion and sensitization would be necessary to find sustainable solutions to address these problems.

- 254. Security threats. On the political front, a number of target countries saw overall security worsen during AAD implementation. It is not expected that much will change for such countries as Burkina Faso, the Niger, or Nigeria that will continue to suffer from militia and murderous raids, abductions and theft. This overall situation of insecurity often prevents people from going to the field to properly manage their plantation, agricultural fields or herds, whereas processing of NTFPs is also affected for lack of produce to be processed, but also for lack of well-functioning markets or stable prices. It is to be feared that the same militia will start to create safety issues in Senegal (and potentially the Gambia), whereas Ethiopia has recently had to deal with unrest and fighting in, and near its Tigre area; also here it remains to be seen what the eventual spillover may be.
- 255. COVID-19. The pandemic has hit all eight countries in the same way and hampered normal AAD implementation activities as of early 2020; it has continued to put most income-generating activities, and others in the respective countries, on the back burner till today.

Evaluation question 6. Progress towards impact. To what extent has AAD contributed to the overall goals to alleviate poverty, end hunger, and improve resilience to climate change in drylands and other fragile ecosystems in ACP countries?

Evaluation question 6.1. What foundations for longer-term impact of AAD can be reasonably expected for poverty reduction, food security and climate change resilience at local and national levels?

Finding 23. AAD's contribution to the overall (ambitious!) short- and long-term goals to alleviate poverty, end hunger, and improve resilience to D/LDD has been piecemeal and remained below par.³¹ The total absence of a cost–benefit assessment and more business-like approach to tackling/solving the problems at hand, does not allow for getting a quantitative estimate of the returns on investment, or assessing whether the project activities (in the fields of NTFP processing/value chains, marketing of fodder, fruits, honey, etc.) created any substantial and/or sustainable income/wealth to sustain them beyond project termination.

256. Production of ecosystem goods and services. AAD had a specific activity targeting "Promotion of income-generating activities and rural employment opportunities, based on sustainable production, processing and marketing of ecosystem goods and services, especially for youths and women." Following the project's rationale and intervention logic, these goods and services to be produced, processed and marketed should directly derive from, and be linked to more sustainable management of existing resources, restoration, tree/shrub/grass/herb planting interventions and activities initiated by the project. As most of the latter interventions were only started towards the second half of the project, trees and shrubs are still too young for them to be the source of harvestable products, so these resources are currently still (sustainably?) collected from the wild.

³⁰ Referred visits were not made under the contracting with OED for this evaluation or accompanied by the FAO-AAD project team. Such visits were made by the independent evaluator, while performing other roles/functions.

³¹ A recent paper by Sacande *et al.* (2021), published after this report was prepared, provides some socioeconomic impact data for Senegal, Nigeria and the Niger.

- 257. NTFP value chain groups. The project initiated some women's NTFP value chain groups and tried to consolidate existing ones. These groups were sensitized and trained on more modern processing techniques that should eventually, and once the necessary equipment had been bought and *given to* the respective groups by the project, be put into practice by them. The absence of training on the more financial/economic aspects of how to run NTFP value chains as businesses, and the fact that equipment was given for free are to be deplored and would preclude any successful and/or sustainable functioning of these groups.
- 258. Local village/NTFP-processing and marketing management committees have been formed and capacitated up to a certain level so that they are at least conceptually and on paper prepared to continue managing restoration and replanting activities. However, for lack of sustainable and structurally embedded financial mechanisms, and for NTFP groups to operate viably in the absence of a well-prepared demand side, i.e. private sector partners that would be sensitized and willing to engage with project groups to bring their products to the market (see the Aduna example highlighted *supra*), it remains questionable whether these committees will be able to indeed continue on their mandates.
- 259. Cost-benefit calculations on income-generating activities. The lack of cost-benefit calculations on the income-generating activities planned by the project did/does not allow for knowing what really works, and what the successful interventions are or could be. The absence of "hard" data on income/wealth creation from project activities (at household/community levels) in terms of NTFP, fodder, fruit, honey... production does not allow for getting a quantitative estimate of the real financial (or economic) impact of these activities.
- 260. Food security. As discussed earlier in this document, from evaluation interviews it became clear that most countries' beneficiaries would have liked the project to have first addressed food security through a direct investment in crop production improvement. The project's rationale was derived from and based on a forester-intervention logic that states that desertification/land degradation is *the* problem hampering agricultural production and should and can only be addressed by planting trees. It thus did not sufficiently consider the beneficiaries' priorities or have a strategy to meaningfully include and promote ownership of the project's activities.
- 261. Income-generating activities. Collecting grass and herbs for the selling of fodder is a more direct income-generating activity that can offset the long waiting period for trees and shrubs to become sustainable sources of NTFPs. Field visits were able to document several cases where income, in some cases even a substantial amount, was generated from collecting and selling forage from restored land (the Niger and Senegal). The fact that the latter was generated over and after a short period of time (quick win) constitutes a factor that may motivate farmers to continue to engage in similar activities. This type of income-generating activity was a prime concern or focus of AAD's interventions and should be considered as an interesting outcome and *not* a secondary side-effect.
- 262. In the same vein, the project assisted and trained individuals/groups on improved beekeeping and honey production (in all countries), equipping them with modern hives (Fiji, Haiti, the Niger and Nigeria). The latter can be considered as a sustainable source of income, albeit for a more limited number of beneficiaries, whereas it also provides an important ecosystem service (pollination) and has the big advantage of becoming operational immediately after beehives have been put into place.
- 263. Seasonal jobs and income opportunities. AAD also contracted many people for seed collection, and nursery and restoration activities, and thus offered seasonal, ad hoc job and income opportunities (and improved livelihoods) to project communities. Overall, however, the impact on

- livelihoods and the very sustainability of all these activities remain questionable to low, with the punctual jobs created during restoration/planting activities being only of a transitory nature.
- 264. Restored land. At the physical level, some 50 000 hectares were prepared/restored by the project. If properly managed, these could/should provide the basis for NTFP value chain development, and also serve as examples for new initiatives and be the starting point for further extensions (spillover/multiplier effect). However, as already highlighted several times, i) the sustainability of activities supported by the AAD is questionable (not to say out-of-reach), whereas ii) there is a serious lack of appropriation of SLM/FLR objectives by some local populations. In that context, where even the existing activities cannot be expected to be sustained, the scaling up of project's results seems very unlikely.
- 265. Government activities. At the higher levels, and especially in Africa through the links of the project with the GGWSSI, activities started under the project will up to a certain level and depending on how much these activities figure on the priority intervention agenda of the respective governments be taken over/continue to be managed by the respective national GGWSSI authorities and/or relevant line ministries (both at national, and/or decentralized management levels). Apart from the political will, continued engagement in these activities will also depend on the availability of funds to pay for them. A number of success stories (beekeeping in Haiti, school gardens/tree lots, youth and mothers' clubs in the Gambia) have or are being fed into national and regional policy levels, so there is indeed a basis to think/hope that eventually land restoration and reforestation will continue to be high on the political and development activity list.
- 266. Regarding "Overall objective 1", i.e. "Contribute to i) alleviating poverty, ii) ending hunger and iii) improving resilience to climate change in drylands and other fragile ecosystems in targeted countries, using a landscape approach", the terminal report answers by saying: "Exceeded. Overall, the project has exceeded its goal of increasing vegetation cover by >10% in all landscape units and localities and its impact has reached up to 1 km around the restored sites. Through the dual benefit of the land restoration approach that was applied, the targeted communities' livelihoods have improved, and their perception of food insecurity has decreased."
- 267. Apart from the fact that the two figures that were provided (>10%, and 1 km around sites) may be considered as gross generalizations and not supported by any quantified data (in the absence of a sound M&E system), they would surely need to be confirmed on a longer time scale. The second phrase only provides a very vague, and again very general appreciation of the theoretically expected (and derived as the report could have added and highlighted the expected results from the NTFP value chain work) benefits and impacts of land reclamation/reforestation on livelihoods and food security. In particular, assessing the vegetation cover percentage "in all landscape units and localities" with such a level of precision would require having in place a complete land use, land-use change and forestry (LULUCF) monitoring system, combining remote-sensing data gathered via a wall-to-wall approach and field data (preclassification and ground-truthing for the remote-sensing treatments/collection of vegetation and dendrometric data), and this was clearly not in place (see the discussion on the geospatial monitoring tool developed under the project supra).
- 268. At this instance, with the circumstantial data that are available, we can only confirm that the theoretical model AAD used to address both the D/LDD and livelihood problematic can if successfully improved, and as a corollary have a positive impact on food security. It could be a valid one, but perhaps only be successful with the additional level of bringing in the attitude and (financial) mechanisms that will guarantee "true" sustainability at all stakeholder levels. As the evaluation has shown, the latter is by no means guaranteed; it should have been addressed

- directly at project conception and must indeed become part and parcel of any future reforestation/land restoration endeavour.
- 269. The evidence that i) AAD results as having promoted livelihoods; ii) improved coping mechanisms at the community level; and that iii) SLM approaches are being mainstreamed in national SDG plans and strategies is circumstantial and anecdotic, and not a structural result of a well-reasoned approach from the project during its execution. The lack of attention for bringing in sustainable development-oriented mechanisms which would have had game-changing and long-lasting effects on the way communities and beneficiaries handle and go about continuing to manage concrete project outputs that were handed over to them, may preclude any lasting positive effects on the issues mentioned above (see the Recommendations section for scenarios that address all of these).
- 270. In most intervention countries, income-generating activity groups were formed by the project, but not all of them were equipped (on time) with the proper hardware to actually start performing, so it is impossible to confirm that livelihoods have been improved (in monetary terms) especially in the absence of baseline data on poverty status and the current financial status of the beneficiaries (see the project's document objectively verifiable indicators [OVI]: improved livelihoods of local communities [monetary benefits] or proportion of the population in affected areas living above the poverty line). Also, the absence of proper business plan, and a well-informed/prepared market/demand side makes it questionable whether the value chain groups will be successful in bringing their produce to the market. In this respect, the project only changed some aspects of what already existed before, i.e. an informal market for locally sourced and processed NTFPs, as it provided some communities with the necessary hardware/equipment to provide higher quality produce to customers and also trained the latter groups in improved soft skills (organization, bookkeeping and negotiation).
- 271. However, all this would need to be complemented by adequate social literacy mechanisms and coping strategies that will prepare beneficiaries and governments for sustainable buy-in and long-lasting integration of interventions/investments into their respective lifestyles, livelihoods and policies.

4. Conclusions and recommendations

4.1 Conclusions

Conclusion 1. Improved conditions of agrosilvopastoral landscapes. The AAD project contributed to improve conditions/productivity of agrosilvopastoral landscapes. Stakeholders report changes in traditional approaches to land management and highlighted that some target communities were better equipped to effectively plan land restoration, and manage forest and land resources, as a result of AAD's approach. Changes in methodologies and planning that enhance restoration, and adoption of novel approaches for degraded areas were also reported. This was possible by increased stakeholder involvement and cooperation emphasized in all project activities. The project also contributed to the reforestation of large, degraded areas, with a concomitant increase in forage supply and NTFP's; in a number of cases, animal damage, as well as conflicts between farmers and cattle-herders in the fields, were reduced. The project also increased awareness of the need to protect the environment through a participatory and concerted management model.

Conclusion 2. Income-generating activities and livelihood improvement. It (AAD) contributed to concrete livelihood improvements in all countries, with higher income coming from salaries derived from temporary jobs created by the project (seed collection, direct seeding and planting of seedlings), and also, to a minor degree, from income-generating activities. Concrete positive incidence on household income, food security, crops and milk production, and community interactions (fewer farmer–pastoralist conflicts and land disputes) were also reported from all countries. The project addressed, up to a certain level, the needs of the targeted beneficiary groups (including resource-poor rural households and other vulnerable groups) in terms of improving livelihoods and production system productivity. Compared with the initial ambitions of the project, though, the level of success can be considered low.

Conclusion 3. Relevance for beneficiaries. The project's focus can be deemed relevant, as it intended to directly address D/LDD and associated NTFP value chain development issues that are at the core of the beneficiaries' livelihoods. Elements of food (in)security (heartfelt concerns of the beneficiaries), and long-term sustainability issues were not sufficiently considered. AAD's intervention model also missed a building block by not creating a solid eco-literate basis. The project did not systematize an approach that could have increased overall buy-in by allowing beneficiaries to propose their own solutions, building on existing coping strategies and techniques to deal with extreme situations of water scarcity or land degradation. Ideally, inventorying and discussing them at the project's start could have meant the beginning of more structural processes of changing the mindset of people/beneficiaries.

Conclusion 4. Design. The project has confirmed that at a technical level, large-scale land preparation (using a Delfino plough) when planting/sowing will indeed work and can be regarded as appropriate to address D/LDD in specific, extreme D/LDD conditions, especially with the right socioeconomic accompanying measures. The commitment to actively engage in planting a combination of local trees/shrubs and herbs/grasses (by mainly direct sowing and/or seedlings) and, more importantly, to take responsibility in sustainably preparing land and managing plantations beyond project intervention, was clearly a very valid AAD approach, although the project did not do enough to propose the necessary financial and organizational mechanisms to guarantee sustainability during, and especially after project completion.

272. Other positive aspects of the approach include involvement of local government line ministries with a focus on country-specific problems; involvement of private-sector service providers and NGOs in support of communities and community-based organizations; and undertaking capacity assessments to ensure that the partners involved would have the necessary capabilities to effectively implement their designated activities and seek support from others when needing to fill gaps.

Conclusion 5. Global design and South–South Cooperation. The multi-country set-up resulted in an unnecessary implementation complexity and diseconomies of scale. Activities over three continents created institutional and operational challenges that could not always be adequately addressed, also due to limited resources. Due to this, AAD got unevenly embedded in the respective national programmes that are meant to address desertification and overall environmental degradation.

- 273. The set of pre-packaged solutions that was to be applied in the eight countries covered by AAD did not sufficiently consider concrete local, context-specific (environmental/sociocultural) situations, particularly in Haiti and Fiji. Deviation from the model was difficult to manage, even though greater flexibility would have helped to cope with the different institutional and ecological starting situations in the different countries and continents. Moreover, AAD's intervention logic was conceived to be context-specific, thus warranting close monitoring.
- 274. At the level of South–South exchanges, the positive results reported were adoption of specific planting and harvesting techniques in Fiji and Haiti based on the experiences of Burkina Faso and the Niger. However, the overall combination of six African countries with a Caribbean, and Pacific island did not create much added value, as South–South exchanges and learning remained limited given the dissimilarity of contexts.

Conclusion 6. Duration. The total project duration, initially established at 55 months, was a compromise inspired by, and the result of political (ACP-EDF cycle period) deliberations rather than inherent project/content logic. The inception phase was short, incomplete and uneven at both institutional (government) and grassroot-community levels. This hampered eventual buy-in, development of a feeling of ownership and engagement.

Conclusion 7. Institutional set-up. At the global level, AAD's management arrangement reflected the complexity and artificial nature of the triangulation between EC, the European Union delegation to the African Union (AU), FAO and AUC, and spilled over into AAD's complex and uneven development/starting of a M&E system and administrative procedures, which lacked subsidiarity and decentralization. The centralized, (strong) personality-based institutional set-up was unnecessarily complicated and hampered the timely and efficient implementation 62rojectt. Centralized technical backstopping, however, was very clearly needed as per the innovation/ new science-based approach that AAD implemented.

275. The PMUs were created in each of the countries, with some of them being lodged with the national GGW authority. Differences between countries in local institutional capacities and personnel experiences resulted in unequal project implementation, and in some cases, weak delivery of project activities. The PMUs were not always able to build relationships with communities, whereas this issue was not always properly addressed (through capacity building, for example). The project also missed a chance to build on pre-existing structures, organizations and knowledge to bring continuity to previous actions.

Conclusion 8. AAD and the GGWSSI. Action against desertification (AAD) contributed to emphasizing the GGWSSI as a flagship initiative that continuously brings about a lot of interest and investments. It has also contributed to giving visibility and promoting the GGWSSI to most stakeholders that should be concerned by the broad thematics of land restoration and reforestation through its publications in scientific journals and presentations in (global) events.

Conclusion 9. Integration of D/LDD in plans. AAD success stories have helped promote local and national advocacy, and, often for the first time, have helped convince local politicians and policy makers to integrate D/LDD work into the respective countries' broader development plans.

Conclusion 10. Entrepreneurial skills and market connection. The NTFP-processing interest groups were created and trained by the project on numerous organizational and technical issues. Training provided on the development of NTFP value chains influenced the establishment of income-generating activities

in each country. The NTFP groups were supported to provide them with the skills needed to bring good-quality products to the market. Private sector engagement was low, especially on the demand side, and could be improved.

Conclusion 11. Communication. The project has communicated with a broad group of stakeholders at various levels, both within its geographical intervention area and beyond, developed several (web-based) documents and articles, and co-organized a fair number of events. Communication on its approach, activities, outcomes and impact, and on more generic issues such as SLM, drylands and/or desertification, have mostly been anecdotic and ad hoc. Target audiences such as the European Union public, are hardly aware of the project's existence, activities, achievements, or impact. A clear communication plan and programmatic strategy would have allowed for reaching a broad(er) public on a consistent and continuous basis, and monitor outreach, numbers and impact.

Conclusion 12. Local leadership model. The Niger, Nigeria and Senegal are good examples that show that the local champion leadership model works and should be strengthened. Overall, AAD's strategy to build on successful grassroot organizations and their (charismatic) leaders was not clear.

Conclusion 13. Monitoring and evaluation. AAD developed M&E solutions and instruments intended to allow for, as well as possible, i) *a posteriori* reconstruction of the initial/baseline/zero situation, and also for ii) monitoring changes against this "zero situation". This was especially valid when it came to verifying/monitoring prepared and planted surface areas (satellite imagery), but not when socioeconomic changes had to be monitored.

- 276. Project baseline data were collected, analysed, reported and used in 2015 (at the beginning of the project), but only published in 2018, and thus late, to allow for comparisons between zones/interventions.³² Baseline indicators in FPMIS were all set to 0, and the M&E tool itself was not adequately/timely developed or provided to the respective project management units in the different AAD-intervention countries.
- 277. Overall, the M&E system did not allow for proper monitoring and learning due to lack of proper and project-wide guidance, and eventually quantified data. Additionally, a better-designed system would also have allowed for documenting successes that could have been used for creating outreach and scaling up activities.

Conclusion 14. Geospatial monitoring. The project's geospatial monitoring work showed that i) satellite-based monitoring data could allow for evidencing and documenting, up to a certain level, the "real" starting situation, even in in the absence of physically field-collected and -validated baseline data, as well as ii) also allowing for proper monitoring of what goes on in the field. However, in the absence of a systematic ground-truthing tool, validity still remains questionable and should be addressed.

Conclusion 15. Project phase-out. COVID-19 contributed to challenges in planning, managing and communication at the end phase of the project. Most partners were/are unaware of how the project ended, and not informed via a Steering Committee meeting or through sharing the terminal report about the project's achievements and potential impacts. Overall, the project lacked a proper exit strategy, so it is questionable how its achievements will be continued and consolidated beyond completion.

Conclusion 16. Sustainability. Sustainability of the project's results is questionable, due to absence of i) proper sensitization at start-up that would/could have brought about proper ownership and buy-in of investments by beneficiaries, and ii) financial/business model(s) that would have allowed for covering maintenance and new investment costs with/by governments and local communities that should/are expected to continue AAD interventions and maintain the infrastructure it put up beyond its completion.

-

³² As highlighted above, this late publication can be explained by FAO's publication timeline.

Conclusion 17. Progress to impact. FAO's, and thus AAD's comparative strength derives, among other things, from the fact it can provide evidence-based, high-quality, technical capacity building to farmers on the technical intervention matters related to land degradation and reforestation. Its outreach and impact could, however, be (and in the case of AAD, have been) complemented and increased if the organization would partner with organizations that have a strong livelihood and process approach.

- 278. Given its design as a single project within a short timeframe, AAD's scale has been limited.³³ The number of farmer communities that engaged in NTFP-based income-generating activities under the programme were limited and unevenly spread over countries, whereas, due to several reasons, the total surface area, replanted with trees/shrubs and herbs/grasses, remained below expectations and under the targeted area. The figures provided document prepared/ploughed and planted surface areas, but not necessarily planting success. The same applies to NTFP production and processing groups.
- 279. The use of satellite imagery and the development of this monitoring tool by AAD also brings in the possibility of following up upon carbon sequestration. Properly monitored, this allows for estimating and monitoring AAD's restoration impact.³⁴ The geospatial study that was conducted as part of this final evaluation estimated the contribution of AAD projects to carbon sequestration to be between 384 000 and 1.27 million tonnes of carbon sequestered (an increase from 2.2 percent to 9.3 percent from baseline), for a median valuation of USD 3.9 million.

4.2 Recommendations

- 280. The following recommendations derive from the key findings presented in this document which are summarized in the conclusions hereabove. These recommendations are intended to be taken up by a possible follow-up initiative that would capitalize on AAD's many positive outcomes and overall achievements, including the positive and negative lessons learned. The recommendations also consider the fact that AUC has extended the intervention range of its GGWSSI towards Southern Africa in an effort to address desertification and land degradation issues there by building a green wall of trees and shrubs, as it did before in the northern half of the continent.
- 281. The recommendations do not take into account the potential future fall-out and further negative impact from the COVID-19 crisis. Where still relevant, recommendations formulated during the MTR have been integrated into the present list. Also, the flow of recommendations follows the (logical) order used in the Conclusions section.

Recommendation 1. Institutional/management model. Concentrate future FLR projects on the African continent to increase political and policy coherence and lower the administrative load (having to work with partners in very different time zones, often in remote locations, that also demand specific attention, and may differ in organizational and administrative "culture"). Work in conjunction with, and under the same broad content umbrella offered by the GGWSSI. Having new FLR initiatives work under and with GGWSSI would mutually reinforce both approaches and create cross-pollination with both initiatives learning from their respective experiences.

Recommendation 2. Decentralized, flexible management model. Overall, project logic should prevail over institutional logic. The management model should give more responsibility to local/decentralized levels, with central headquarters providing overall leadership and guidance/support, and not having to

_

³³ A recent paper by Sacande *et al.* (2021), published after this report was written, provides some socioeconomic impact data for the Niger, Nigeria and Senegal.

³⁴ A recent remote sensing paper by Sacande *et al.* (2021), published after this report was written, provides methods to monitor restoration extent, success, or failure of the intervention sites from land preparation to biomass growth.

decide on every aspect and detail of project implementation. In this model, central authority has a subsidiary function, performing only those tasks which cannot or should not be performed at a more local level. The <u>keywords</u> here are: subsidiarity, decentralization, accountability, flexibility. Reporting on activities, and disbursement/budget justifications should be as light as possible, again with a maximum of responsibilities being borne by the decentralized/national PMU levels.

Recommendation 3. Partnerships. FAO's, and thus AAD's, comparative strength, among other things, derives from the fact it can provide evidence-based, high-quality, technical capacity building to farmers on the technical intervention matters related to land degradation, restoration and reforestation. Its geographical outreach and impact could and should, however, be complemented and increased if the organization that has a technical intervention focus partners with major donors and organizations that have a strong livelihood and process approach and puts more emphasis on development-oriented capacity building for greater buy-in and sustainability. The keywords here are: grassroot-informed institutional literacy, sustainable organizational structures, capitalization on successes and consolidation of past/future interventions.

Recommendation 4. Programmatic approach. Addressing landscape restoration, and investing time and money in reforestation, would require a more holistic, multidisciplinary programmatic approach that covers all material, but also the more conceptual socioeconomic aspects of D/LDD-mitigation. A programmatic approach also allows for rectifying mistakes or improving matters, where necessary and possible, and for a longer period of time (see Recommendation 5).

Recommendation 5. Intervention duration. Within a programme approach and logic, increase the total initiative/programme/project duration for greater progress, achievements and impact, with a time horizon of at least 8 to 12 years. Indeed, after signing the initiative contract, the intervention should start with an inception phase (a so-called year-zero or pre-phase of the intervention) that should take at least from 1.5 to 2 years to – literally and metaphorically – prepare the grounds and sensitize beneficiaries (and stakeholders at all levels), get them accept and buy into the project and intervention logic, and convince national/political institutions that "it is all about the people" (and not about themselves/the institutions).

Recommendation 6. Tailor-made solutions. Invest in tailor-made solutions and approaches, for which respective, local management units and service providers should be trained and monitored so as to provide the best possible solutions for each specific situation. This requires flexible, decentralized design and implementation features as described above.

Recommendation 7. Large- versus small-scale. Adapt large-scale interventions to address specific problems, respecting local characteristics, and integrate/combine large-scale, machine-based approaches with smaller-scale, more labour-intensive ones. The heavy-machinery model should be reviewed/adapted to local conditions, where needed, and scaled to conform to local characteristics/limitations in order to build and guarantee sustainability and replicability.

Recommendation 8. Large-scale land restoration. A large-scale approach to land restoration using the Delfino plough can successfully prepare large surface areas for improving water storage and the subsequent planting of trees/shrubs and herbs/grasses if and when i) adequate baseline data confirm that heavy machinery will not be harmful for the soil or plant/animal environment; ii) this kind of technical intervention follows successful sensitization and training of target communities (and by extrapolation, all stakeholders that should be involved in this kind of restoration-cum-livelihood improvement activity) on organizational, financial (cost for running/repairing the hardware) and entrepreneurial matters; and iii) is planned, organized and managed together with local populations who should get/claim ownership of the whole range of interventions and invest their own resources in the initiative.

Recommendation 9. Inception. In future, projects should have a kind of two-pronged approach, starting with a *long inception phase* that should build awareness at all institutional and stakeholder levels on the problems deriving from climate change and land degradation, but also on the ways local communities and institutions could address them. This first phase should set out/create the proper environment so

that subsequently all stakeholders would be able to express and devote themselves to attaining the objectives set out at the beginning. During that inception phase, the project should create strong PMUs in the respective countries, lodging them with the relevant line ministries and/or national agencies in charge of managing the GGWSSI (Africa) and/or land restoration. Institutionalizing management teams and attaching them to these national agencies would give them greater visibility and credibility, and may also be a factor that would guarantee greater post-project sustainability.

Recommendation 10. Put people first. Restoration is not only about trees and shrubs (or foresters or forestry departments); instead, it is first and foremost about <u>putting people really first</u>. Future FLR project should address *all* issues covered by the word agrosilvopastoral, and holistically integrate crop and animal production aspects in its reforestation/landscape restoration approach. This would also mean having a greater focus on wood (fuel)-related issues, whereas NTFP processing and marketing should be maintained as possible sources of income. This would also imply that before the start of any intervention, the project should take stock of the beneficiaries' development/intervention priorities, and match/integrate these with its D/LDD-mitigation interventions. If the beneficiaries' priorities are food and adequate nutrition provision, the latter should be addressed with the highest priority, with D/LDD-activities becoming secondary. Government policy also should promote/enable/foster stakeholder participation at all levels of the decision-making and implementation chain.

Recommendation 11. Blueprint for action. Getting the commitment on, and overall support from initiation to completion and beyond, to any FLR initiatives, would imply the need to first organize a number of baseline surveys that combine an analysis of the physical elements of the problem at hand (in this case: land degradation and desertification) with the socioeconomic/human factors that have resulted in the situation deteriorating or problems not having been addressed, and with a focus on defining the priority areas that local communities want to see addressed (the assumption being that food insecurity and addressing food crop production would come first; in that case, the project should define an intervention strategy that would prioritize the latter livelihood issues, and bring in FLR as a secondary, but focal activity). This should then be followed by multi-stakeholder dialogues and sensitization workshops involving all relevant people, but especially the communities in the planned intervention areas, before the start of any promises or concrete initiative. During this fact-finding and sensitization period, the intervening organization should also make it quite clear that it will not come in as a service provider, or come and "assist" the local populations. Instead, right from the start, it should make it clear that there will only be investment in crop production and land restoration, if prior to that the local communities had committed (not just pledged) the financial and human resources for putting into place and what is deemed necessary to address the main problems at hand. This would mean bringing in notions of, and training communities on, how to save and operate microfinance systems, which are the main vehicle to help mobilize the much-needed local resources to allow communities to sustainably become owners of their own destiny and initiatives (i.e. building financial literacy). This basically also means that the project would try to either work with existing formal groups of beneficiaries that may have worked in the same thematic fields of crop/animal production and restoration, or that new groups must be formed and trained. The next step is then to formalize the collaboration between these groups and the project by providing capacity training on creating and managing committees, and further provide them with the necessary conceptual tools and hardware to allow them to invest themselves in participatory community/village land-use plans and subsequently, project activities.

Recommendation 12. Foster dialogue. To protect plantations against grazing or browsing domestic animals, while taking into account the prohibitively high costs of fencing, FLR projects should invest the time and means to foster a dialogue between migrating/transhumant cattle growers and sedentary farmers/communities that engage in tree/shrub plantations in order to sensitize them to FLR thematics, and the potential benefits from FLR (e.g. provision of forage harvested from restored land in the dry season).

Recommendation 13. Present/provide alternative means of livelihood to herders. In many dry areas, grazing by goats/sheep is a traditional land use model. Extensive enclosures of forest plantations can impose drastic changes in the habits and economies of the affected rural communities. In such situations, it would be unwise to initiate planting programmes unless alternative means of livelihood can be presented/provided beforehand to goat/sheep herders. This would require (and should thus be considered by future FLR interventions) the integration of community development schemes (for example, improved agriculture or animal husbandry, better communications, schools, or medical welfare) and increased opportunities for employment by the development of rural industries (such as afforestation programmes and rural forest industries) (FAO, n.d.b.).

Recommendation 14. Business approach. Future FLR projects should have a more business-like approach. This means they should/must respect a strict financial and economic costing logic, and *ex-ante* provide cost–benefit analyses for the planned interventions, including the definition of payback- and break-even periods. This also means it is necessary to develop sound business plans that take on board both material and immaterial costs and benefits at the local (financial analysis) and national (economic analysis) levels. Beneficiary groups could also benefit from training in entrepreneurial and financial skills such as cost–benefit calculations and business planning, and of a community-run financial reserve/buffer/savings account.

Recommendation 15. Develop NTFP value chains by linking NTFP groups to private enterprises that could help create and develop viable markets for the products developed by the beneficiary groups,³⁵ e.g. through contract farming or outgrower schemes. The assumption is that private firms collaborating with the beneficiaries' NTFP groups will continue to invest in processing and retailing even when the project is finished (and as long as the markets for these products remain viable). Having the private sector on board should also motivate beneficiaries to continue to improve and work on their activities and incentivize communities for greater ownership and responsibility to address and manage land degradation.

Recommendation 16. Build multi-stakeholder ownership. Invest in sensitizing beneficiaries to the intervention's problematics and thematics, and obtain expression of complete engagement prior to the start of any activity. A greater level of involvement of *all* stakeholders – including, but not limited to beneficiaries, service providers and line ministries – would generate more solid commitment and partnership to fight drought and desertification and nurture potential spillovers. For that, it is key to find "champions" and key reference/leading persons with charisma who can train those with a high potential and a solid, vested local basis and sound local roots, and empower them to negotiate with local and regional (and if need be higher-level) governments and private operators. This would provide grassroot organizations with the necessary skills and competencies, and institutional capacity, to guarantee local buy-in. In addition, this would mean putting national governments and their line ministries and agencies in the driving seat. Together, these approaches should not only bring more sustainability but also guarantee greater continuity in land restoration projects *sensu lato*.

Recommendation 17. Communication. FLR projects should have a more programmatic, linear and well-prepared approach to communication and informative outreach.³⁶ The approach should involve stakeholders across the whole intervention chain and on all levels, and be based on success stories. It should also be linked to the GGWSSI implementation strategy and include a dedicated communication officer. The communication strategy should be monitored and adapted along the project, whereas

-

³⁵ It should be noted that most NTFPs (*néré/soumbala*, raisins, Balanites, baobab pulp/leaves, etc.) are collected, processed, used and/or sold at the local/village level. There are only a few NTFPs that could attract interest for building such PPPs and/or be marketed beyond the local level or at more global level (in the first place, targeting the diaspora): shea nut butter, with very strict conditions to comply with export markets, gum arabic, baobab pulp (for juice).

³⁶ See the MTR for guidance.

outreach and impact should be monitored and quantified in detail, and the results fed back into the strategy to increase and optimize communication effects.

Recommendation 18. M&E. Future projects should invest time and money in developing a shared M&E tool, which would allow for collecting the quantitative and qualitative baseline data (socioeconomic, environmental...) that is needed to eventually feed into and set up a performant M&E system that should enable monitoring of all aspects of project implementation, including progress, deviation from initially agreed planning, impact... This would also imply having a solid theory of change established, with a firm set of evaluation criteria that would cover all aspects of the intervention. The management model should also allow for adjustments to be incorporated during project execution, to adapt to changes that might occur. More in general, M&E should focus on both quantitative and qualitative issues, going beyond pure metrics and focusing on (the reasons for) processes, success and failure.

Recommendation 19. Geospatial monitoring. Although the satellite imagery techniques have been developed and tested in other settings, each specific use still needs to be validated and confirmed. The technique should be fine-tuned to correct or improve (in particular) lack of ground-truthing, and lack of detail regarding the mix of trees, herbaceous species, tree diameters and canopy sizes. If further developed, refined and confirmed, a geospatial, satellite imagery-based monitoring tool like the one tested under AAD could be a valuable and cheap M&E tool that would allow for obtaining more objective, quantitative data that would be easier and quicker to interpret and share. This would allow for i) monitoring land restoration surface areas to be prepared for planting (e.g. for service contracts with external/private providers); and ii) monitoring the success/failure of seedling and plant development in reforested plots.

Recommendation 20. Guidelines for complex M&E. Assessing FLR (reforestation of trees/shrubs) together with revegetation (herbs/grasses) success is often complex. There are several stages in the FLR process to consider, together with several objectives and a multitude of indicators and drivers. Due to the idiosyncrasies of individual FLR projects, it may not be possible to develop an integrated planning and evaluation model that captures all drivers of success. These success drivers can be grouped into technical/biophysical drivers; socioeconomic drivers; institutional, policy and management drivers; and FLR project characteristics, and should be considered as guidelines in setting up a well-performing, ad hoc M&E system.

Recommendation 21. Guarantee sustainability by building the "right" mechanisms into interventions at concept preparation. This could mean securing (moral) ownership and buy-in from beneficiaries, but also building in sustainable financing mechanisms³⁷ at whatever stakeholder levels.³⁸ At the grassroot level, this would mean developing (and providing training in) elementary microfinance approaches, with a focus on local (in kind) resource mobilization (saving first!) for creating the solid financial basis that would allow for local-level, community-driven (co-)investment in the activities and hardware promoted by projects such as AAD. Capacity building in, and for land restoration and reforestation interventions should have a very strong/much stronger focus on the softer aspects of building partnerships and putting technical interventions on the ground.

_

 $^{^{37}}$ For a more extensive discussion, see FAO & Global Mechanism of the UNCCD (2015).

³⁸ At a national government level, this could mean building public-private partnerships, operationalization of the Green Climate Fund, setting up Mirova Fund(-like) or AFOLU credit schemes (that offer investment solutions combining the search for financial performance with environmental and social impact), bring in land degradation neutrality targets in relation to the Bonn challenge, Afri100 ... in other words, schemes that would decrease dependency on external grant money.

Bibliography

Aduna. n.d. Aduna. In: Aduna [online]. London. https://aduna.com/

AFR100. n.d. *AFR100*. The African Forest Landscape Restoration Initiative. Retrieved 7 December 2021, from https://afr100.org/

Bastin, J.-F., Berrahmouni, N., Grainger, A. et al. (31 authors in toto) 2017. *The extent of forest in dryland biomes.* Science 356, 635-638.

Berrahmouni, N. and Sacande, M. 2017. Building BRIDGES between Turkey and Africa's Great Green Wall. Rome, FAO.

Berrahmouni, N., Laestadius, L., Maratucci, A., Mollicone, D. Patriarca, C. and Sacande, M. 2016. A Great Green Wall of Resilience. Conference COP 22, Marakech.

Berrahmouni, N., Parfondry, M. and Regato, P. 2016. Global guidelines for the restoration of degraded forests and landscapes – Buidling resilience & benefiting livelihoods. Rome, FAO. https://www.fao.org/3/be730e/be730e.pdf

Berrahmouni, N., Regato, P. & Parfondry, M. 2015. *Global guidelines for the restoration of degraded forests and landscapes.* Forestry Paper 175, Rome, FAO. (ISBN: 978-92-5-108912-5), 149 pp.

Ceci, P., Sanogo, S., Ambrose, E., Sacande, M., Sanou, L., Adda, M. and Ulian, T. 2018. Reversing land degradation and desertification in Africa's drylands. BG Journal, 15(2), 19 – 22.

CODEX. n.d. CORDEX-CMIP5. In: *CORDEX* [online]. Norrköping, Sweden. https://cordex.org/experiment-guidelines/cordex-cmip5/

Commission de l'Union africaine et APA. 2012. Stratégie régionale harmonisée (HRS) pour la mise en œuvre de "Great Green Wall Initiative of the Sahara and the Sahel". Document developed with support of the European Union, FAO and The Global Mechanism.

Dosio, A., Jury, M. W., Almazroui, M., Ashfaq, M., Diallo, I., Engelbrecht, F. A., & Tamoffo, A. T. 2021. Projected future daily characteristics of African precipitation based on global (CMIP5, CMIP6) and regional (CORDEX, CORDEX-CORE) climate models. *Climate Dynamics*, *57*(11),3135-3158. www.osti.gov/pages/servlets/purl/1822044

FAO & Global Mechanism of the UNCCD. 2015. Sustainable financing for forest and landscape restoration: Opportunities, challenges and the way forward. Discussion paper. Rome. www.fao.org/3/I5174E/i5174e.pdf

FAO. 2015. Global guidelines for the restoration of degraded forests and landscapes in drylands: building resilience and benefiting livelihoods. Text by Berrahmouni, N., Regato, P. & Parfondry. In: *M. Forestry Paper No. 175*. Rome.

FAO. 2017. Building BRIDGES between Turkey and Africa's Great Green Wall. Rome. https://www.fao.org/3/i7952e/i7952e.pdf

FAO. 2018°. Biophysical and socioeconomic baselines: the starting point for Action Against Desertification by Sacande, M., Parfondry, M. & Martucci, A. Rome. ISBN: 978-92-5-130794-6.

FAO. 2018b. Expanding Africa's Great Green Wall: Non-timber forest products: from restoration to income generation by Sacande, M. & Parfondry, M. Rome.

FAO. 2020. *Biodiversity: Its central role in the sustainable development of Africa*. Nature & Faune, Volume 33, Issue 1. Accra. www.fao.org/3/ca8253en/ca8253en.pdf

FAO. 2021. Terminal report of the AAD Project. 53 pp.

- **FAO.** n.da. Action Against Desertification. In: *FAO* [online]. Rome. Retrieved 7 December 2021. www.fao.org/in-action/action-against-desertification/en/
- **FAO.** n.d.b.. Maintenance of the plantation. In: *FAO* [online]. Rome. Retrieved 7 December 2021. www.fao.org/3/t0122e/t0122e09.htm
- **FFEM.** (n.d.). Fonds Français pour l'Environnement Mondial. Fonds Français Pour l'Environnement Mondial. Retrieved 7 December 2021, from www.ffem.fr/fr
- **IPCC.** 2021. Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Oxford, United Kingdom, Cambridge University Press. In press. https://www.ipcc.ch/assessment-report/ar6/
- **ITTO.** 2002. ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests. International Tropical Timber Organization in collaboration with the Center for International Forestry Research (CIFOR), the Food and Agriculture Organization of the United Nations (FAO), the International Union for Conservation of Nature (IUCN) and the World Wide Fund for Nature (WWF) International.
- **Le, H.D., et al.** 2021. More than just trees: Assessing reforestation success in tropical developing countries. Journal of Rural Studies (published online 2011), doi:10.1016/j.jrurstud. 2011.07.006.
- **Mirzabaev, A., Motlagh, F. and Shyrokaya, A.** 2021. Cost and benefit assessment of land restoration in Africa's Great Green Wall Programme. University of Bonn, 68 pp.
- **Pan-African Agency of the Great Green Wall.** 2018. *The Great Green Wall Initiative: 2011-2017 ACHIEVEMENTS AND CHALLENGES TO THE 2030 PATH.* Special Edition. News magazine N.001.
- **Pelletier, S.** 2016. *Projet FLEUVE: Front Local Environnemental pour une Union Verte*. Review of implementation of centrally managed projects and programmes financed by the EU under the thematic programmes (CMTPs). EVA/2014/353-590, EVA/2015/353-390. ROM Team of Centrally Managed Thematic Projects and Programmes (ROM CMTP). Brussels Office. Rue d'Egmont 15, B4, 1000 Brussels, Belgium. Complete Evaluation Report, pp. 8,16.
- **Sacande, M. & Berrahmouni, N.** 2016. Community participation and ecological criteria for selecting species and restoring natural capital with native species in the Sahel. Restoration Ecology, 24(4), 479–488.: https://doi.org/10.1111/rec.12337
- **Sacande, M. & Berrahmouni, N.** 2018. Africa's Great Green Wall: A transformative model for rural communities' sustainable development. *Nature & Faune*, 32: 90–99.
- **Sacande, M. & Onyango, V.** 2018. Community participation in large-scale land restoration for Africa's Great Green Wall programme in the Niger. WOCAT-2909.
- **Sacande, M., Martucci, A., & Vollrath, A.** 2021. Monitoring Large-Scale Restoration Interventions from Land Preparation to Biomass Growth in the Sahel. *Remote Sensing*, 13(18): 3767. https://doi.org/10.3390/rs13183767
- Sacande, M., Parfondry, M., Cicatiello, C., Scarascia-Mugnozza, G., Garba, A., Olorunfemi, P. S., Diagne, M., & Martucci, A. 2021. Socio-economic impacts derived from large scale restoration in three Great Green Wall countries. *Journal of Rural Studies*, 87: 160–168. https://doi.org/10.1016/j.jrurstud.2021.09.021

 Sacande, M. Parfondry, M., and Martucci, A. 2018. *Biophysical and socioeconomic baselines: the starting point for Action Against Desertification*. Rome, FAO. www.fao.org/documents/card/en/c/CA0390EN/
- **Ulian, T., Sacande, M., Hudson, A. & Mattana, E.** 2017. Conservation of indigenous plants to support community livelihoods: the MGU Useful Plants Project. *Journal of Environmental Planning and Management*, 60(4), 668-683.

UN. 2020. Preventing, Mitigating & Resolving Transhumance-Related Conflicts in UN Peacekeeping Settings. A Survey of Practice. New York, United States of America. https://peacekeeping.un.org/sites/default/files/transhumance_and_un_pkos_final_web.pdf

UNCCD. 2016. Land Degradation Neutrality Target Setting – A Technical Guide (draft for consultation during the inception phase). Bonn, Germany.

UNCCD. 2020. Interim report of the intergovernmental working group on effective policy and implementation measures for addressing drought under the UNCCD. Committee for the Review of the Implementation of the Convention, Nineteenth session. Bonn, Germany.

UNCCD. N.d. Land Degradation Neutrality Fund. In: *UNCCD* [online]. Bonn, Germany, https://www.unccd.int/land-and-life/land-degradation-neutrality/impact-investment-fund-land-degradation-neutrality

UNEG. 2016. Norms and Standards for Evaluation. New York.

Vankoningsloo, M. 2019. Evaluation des impacts environnementaux du projet 'Action contre la Desertification' de la FAO, mis en oeuvre dans le Ferlo senegalais et en appui à la Grande Muraille Verte. MSc thesis, UCL-Belgium, 117 pp.

WRI. (n.d.). African Forest Landscape Restoration Initiative (AFR100). In: *World Resources Institute* [online]. Retrieved 7 December 2021. www.wri.org/initiatives/african-forest-landscape-restoration-initiative-afr100

Appendix 1. People interviewed

Below is a list of the stakeholders who provided written information or were interviewed remotely. The list of informants in each of the eight countries is provided in the respective country's aide-memoires.

Last name	First Name	Organization	Position	Gender	Country
Audate	Eder	Ministry of Environment of Haiti	UNCCD Focal point	М	Haiti
Bahal	Patrick	FAO Ethiopia	AAD National Project Coordinator	М	Ethiopia
Balmir	Mykerlange	FAO Haiti	AAD National Project Coordinator	М	Haiti
Berrahmouni	Nora	FAO Regional Office for Africa (FAO RAF)	Lead Technical Officer/Senior Forestry Officer	F	
Borelli	Simone	FAO Forestry Division (NFO)	Project (AAD) Lead Technical Officer	М	Italy
Crabbe	Bernard	European Commission, International Cooperation and Development, DevCo/Belgium	Head of Environment and Mainstreaming Sector	М	Belgium
Danso	Abdoulie	FAO Gambia	AAD National Project Coordinator	М	Gambia
Daveta	Maika	FAO Fiji	AAD National Project Coordinator	М	Fiji
Diop	Gora	Great Green Wall National Agency	Director	М	Senegal
Doulkom	Adama	Great Green Wall National Agency	National Coordinator	М	Burkina Faso
Fameso	Thomas	FAO Nigeria	AAD National Project Coordinator	М	Nigeria
Gabriel	Abebe Haile	FAO Regional Office for Africa (FAO RAF)	Assistant Director- General and Regional Representative for Africa	М	
Ghiurca	Alexandru	European Commission, International Cooperation and Development, DevCo C2- Environment	AAD Focal Point	М	Belgium
Hassan	Bukar	Great Green Wall National Agency	Director	М	Nigeria
Maisharou	Abdou	Great Green Wall National Agency	Director	М	Niger
Nordheim- Larsen	Camilla	The Global Mechanism of the UNCCD	Programme Coordinator	F	
Poda	Damas	FAO Burkina Faso	AAD National Project Coordinator	М	Burkina Faso
Sacande	Moctar	FAO Forestry Division (NFO)	AAD Global coordinator	М	Italy
Sarr	Mignane	FAO Senegal	AAD National Project Coordinator	М	Senegal
Tangem	Elvis Paul	GGWSSI for the AUC	Coordinator	М	Ethiopia
Wata	Issifou	FAO Niger	AAD National Project Coordinator	М	Niger

Appendix 2. Logframe matrix – achievement of indicators

	Indicators				If not	lf
Results Chain	Indicators	Baseline	End target (expected value at project completion)	Achieved	achieved, explain why	applicable/ follow-up action to be taken
Overall objective Contribute to i) alleviating poverty; ii) ending hunger; and iii) improving resilience to climate change in drylands and other fragile ecosystems in Organisation of African, Caribbean and Pacific States (OACPS) countries, using a landscape approach.	Increase in vegetation cover (using Collect Earth Tools).	0%	10%	Exceeded. Overall, the project has exceeded its goal of increasing vegetation cover by > 10% in all landscape units and localities, and its impact has reached up to one km around the restored sites. Through the dual benefit of the land restoration approach that was applied, the targeted communities' livelihoods have improved, and their perception of food insecurity has decreased.		
Specific objective To improve the condition and productivity of the agrosylvipastoral landscapes affected by desertification, land degradation and drought (D/LDD) in OACPS countries through the implementation of the GGWSSI.	i) number of hectares of agrosylvipastoral landscapes in project areas; under SLM and restoration; ii) number of beneficiary rural farmers (50% of whom should be female with increased income); and iii) increase of net primary productivity of lands in the selected landscapes.	i) zero ha use Collect Earth to track biophysical changes and household surveys for socioeconomic changes; ii) 0 household surveys for socioeconomic changes; and iii) 0% of land-use assessments (Collect Earth).	i) 40 000 ha used Collect Earth to track biophysical changes and household surveys for socioeconomic changes; ii) one million household surveys for socioeconomic changes; and iii) 10% land-use assessments (Collect Earth)	Exceeded. More than 50 000 ha of degraded lands are under restoration, women's income increased with NTFPs, and more than 10% of land use assessments extended to regions and the whole of Africa.		
Result 1 Enhanced enabling environment and capacity of relevant	i) number and quality of learning programmes;	i) zero units of learning programmes: land restoration, monitoring	i) fve units of learning programmes: land	Yes. The enabling environment of stakeholders was enhanced. The project reached 24 257 beneficiaries through a		

		Indicators				lf
Results Chain	Results Chain Indicators Baseline End target (expected value at project completion)		Achieved	achieved, explain why	applicable/ follow-up action to be taken	
governmental and non- governmental institutions and stakeholders in OACPS countries to carry out effective cross-sectoral work.	ii) activity/investment plans for sustainable land management; and iii) percentage of females at the local level with capacity to plan and budget income-generating activities and access to grants or micro-credits.	and evaluation, capacity development, community-based enterprise development, learning programme on project implementation/operations; ii) 0 units; and iii)0%.	restoration, monitoring and evaluation, capacity development, community-based enterprise development, learning programmes on project implementation/op erations; ii) four units; and iii) 30%.	total of 251 training sessions and workshops. These activities focused on reforestation and plantation; seed and seedling production; sustainable natural resource management; water harvesting; large-scale restoration and plantation/sowing techniques; community site management; compost and organic manure production; soil and water conservation practices; natural resources policy formulation; seed biology, collection and handling; landscape restoration techniques; family farming; enterprise development; honey production; nursery management; natural regeneration; and FFSs. Capacities were also developed on monitoring and evaluation, communication and NTFPs.		
Result 2 Local communities, and governmental and non-governmental stakeholders have adopted and are using improved sustainable land/forest management practices and technologies.	i) number of knowledge- sharing events and visits organized at local, national, regional and interregional levels; ii) percentage of households in each landscape unit that use SLM good practices; iii) average percentage of income increase by the rural farmers; and	i) 0 units; ii) 0%; iii) 0%; and iv) 0.	i) 30 units; ii) 40%; iii) 15%; and iv) 2 000.	Yes. The goals of this output were exceeded. The stakeholders and communities beyond just the direct beneficiaries adopted and were using SLM/SFM techniques at the time of reporting. More than 80 000 people benefited from the plantation, restoration and NTFPs that were developed under this project. A total of 42% of these beneficiaries were women.		

Appendix 2. Logframe matrix – achievement of indicators

	Indicators				If not	If
Results Chain	Indicators	Baseline	End target (expected value at project completion)	Achieved	achieved, explain why	applicable/ follow-up action to be taken
	iv) total number of people trained by the project, including in SLM practices/technologies and marketing of NTFP and other ecosystem goods and services.			As stated above, 24 257 beneficiaries were trained through a total of 251 training sessions and workshops.		
Result 3 Knowledge and awareness are enhanced among key target audiences and stakeholders from the European Union and OACPS countries	i) number of information products released by FAO (press releases, stories, videos); ii) number of publications in international and national media; iii) number of communication/visibility events; and iv)umber of hits on the	i) 0 units; ii) 0 units; iii) 0 units; and iv) 0.	i) 40 units; ii) 75 units; iii) 30 units; and iv) 35 000.	Yes. The knowledge and awareness of key target audiences and stakeholders were enhanced on SLM/SFM issues through participation in workshops, conferences, presentations, videos and published technical and scientific materials. Over 10 000 copies of informational material were developed and distributed under the project. Fifty-four publications were produced.		
	website.			As of the time of reporting, the website had reached 167 697 page views.		

Appendix 3. Evaluation matrix

The Evaluation matrix is based on FAO's format but updated to fit OECD's 2019 updated evaluation criteria; for instance, "alignment" has been replaced by "coherence".

Relevance and coherence have been merged into one overall key question.

While the numbering of the evaluation questions does not correspond to the same number as per the TORs, all evaluation questions from the TORs are included in the matrix either as questions or sub-questions.

The assumptions identified in the reconstructed TOC have been incorporated.

As described in the main text of the inception report, the scope of the project will have limited concrete influence on national development and green growth policies; consequently, this evaluation does not allow for any meaningful and evidence-based analysis regarding the project's contribution to national development/green growth policies. If the evaluation observes any anecdotal evidence in this direction it will only be presented as such.

The findings of the evaluation, subsequent analysis and conclusions will generate lessons learned and recommendations.

The analysis and conclusions will show the characteristics of AAD and how it is different from other initiatives, including contextual specificities, and draw lessons learned on that (corresponding to Evaluation questions 6 and 7 in the TORs).

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants			
1. Approach/design – relevance and coherence Was the AAD design appropriate to contribute to improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD and/through SSC in ACP countries?						
1.1 To what extent were the project design and objectives relevant to the needs and priorities of the project's beneficiaries?	Project activities based on needs assessments	Identification of key needs assessments used in project design: external and internal	Document review: Prodocs and MTR Interviews: KII national AAD coordinators and GGW coordinators and UNCCD coordinators			
	Participation of beneficiaries in the design of project activities	Level of participation – how were representatives selected?				

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants
	Examples of needs suggested by 1/participants and 1/project that were not in the design	This is an indication of how much the alternatives/priorities have been considered	
	National application of the landscape model Extent to which landscape models were used at the national level	At national, regional, and global levels Assessment will include considerations of definitions	
1.2. How relevant and coherent was the project for the eight AAD countries, and GGW and UNCCD strategies (2009-2018 and 2019-2030)?	Level of coherence with national GGWSSI National Action Plans and UNCCD LDNs (Africa)	GGWSSI strategy reflects UNCCD strategies and national policies and priorities for dryland development	Document review: Prodocs, NAPs, PRAIS, LDNs, and UNCCD strategies and evaluations, Priorities Resilience Country PRC Interviews: KII national AAD coordinators and GGWSSI coordinators and UNCCD
	Level of coherence with UNCCD NAPs and LDN (C&P)	NAP Haiti 2015 The most recent NAP in Fiji is from 2007 – comparison will have to be based on national LDN/PRAIS	coordinators
	Level of coherence and planned contribution to UNCCD strategies	This will assess the added value of AAD design as a global initiative/potential global contribution (1.6 in TOR)	
1.3. How relevant and coherent were the project and the eight national AAD responses to FAO's strategic	Level of coherence of AAD/FAO corporate strategic framework (focus on NRM)	Special focus on CC/adaptation/resilience	Document review: Prodocs, corporate and national strategic frameworks and BTORs

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants
framework, particularly the FAO climate change strategy, poverty reduction and food security?	Level of coherence of AAD national plans/FAO country programme frameworks	Special focus on CC/adaptation/resilience	Interviews: FAO country representatives/deputies, key technical units in Rome and regional offices
	Level of coherence between FAO's corporate strategic framework and AAD	Special focus on CC, resilience, dryland, poverty, gender and food security	
	Level of involvement of FAO HQ technical units in project design	Special focus on CC/adaptation/resilience experts	
1.4 To what extent was the AAD logical model appropriate to reach its goal and objectives?	Existence of key TOC elements	Special attention to giving a clear definition of change and assumption	Document review: Prodocs, MTR Interviews: global and national AAD coordinators
	Coherence of the logical framework matrices	Will be assessed both internally and vertically in the project: global/regional/national LFMs	
	Relevant risks considered, and mitigation plan developed at global and national levels	Both globally and nationally	
1.5 To what extent is the South – South Cooperation model/approach applied relevant given the context?	Activities identified for South – South Cooperation	Assessment will include how much attention has been given	Document review: Prodocs, MTR Interviews: global and national AAD coordinators
	Is the South – South approach of the project realistic?		

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants		
1.6 To what extent is the applied research and piloting/modelling/scaling-up approaches planned relevant for the project intervention areas?	Description and clarity of the approaches with indicators and justification	Assessment if the approaches are realistic. Identification of all initiatives aiming at innovation, piloting, modelling and/or scaling up	Document review: Prodocs, MTR and LoA with research institutes Interviews: global and national AAD coordinators The Secretariat of the Pacific Community (SPC), WRI coordinator, Sea Web Pacific coordinator and similar technical partners		
1.7 To what extent were the lessons learned from other initiatives used for project design? And were they relevant?	Use of lessons learned for Prodoc design		Document review: Prodocs, MTR and Annual report,		
tney relevant?	Relevance of lessons learned used		Interviews: global and national AAD coordinators and other national authorities, NGO, community-based organizations and researchers		
1.8 To what extent is the combination of approaches deployed by the project (the AAD model) relevant for reaching the defined goals, outcomes and outputs?	Evidence of cross-fertilization	This will mainly be assessed in a qualitative manner	Document review: Prodocs, Interviews: global and national AAD coordinators, international and national		
	Partnerships at strategic and operational levels	Assessment of the choice of partners	partners, GGWSSI coordinators, UNCCD focal points, steering committee members, relevant UN agencies and other projects such as IUCN and UNCCD		
2. Results: Outcome level – Effectiveness To what extent (and how effectively) has the project contributed to improving the conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD and to South – South Cooperation among ACP countries?					
2.1 Result 1. To what extent has the project enhanced the enabling environment and capacity of relevant governmental and non-governmental organizations and stakeholders in ACP countries to carry out effective cross-sectoral work, planning, financing,	Observed changes in SLM/forest planning, implementation and monitoring for SLM, and restoration at local, regional and national levels	This is a proxy for capacity development	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local		

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants
budgeting, implementation, monitoring and evaluation of sustainable land/forest management and restoration efforts at the landscape level?			authorities and beneficiary representatives, including women and youths
	Changes in national SLM/forest plans/ strategies	This is a proxy for capacity development	Document review: narrative progress reports and national D/LDD/GWW frameworks Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths
	Observed changes in national and local D/LDD monitoring frameworks where AAD projects have directly intervened	This is a proxy for national D/LDD monitoring	Document review: narrative progress reports, national D/LDD / GWW frameworks and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths
	Observed changes in coordination at GGWSSI and AUC levels where AAD project have directly intervened	This is a proxy for AAD project support for regional coordination	Document review: narrative progress reports, national D/LDD / GWW frameworks and logical framework monitoring of the project Interviews: global and national AAD coordinators, international partners and GGWSSI coordinators
	Observed changes in resource mobilization for LDN/SLM where AAD projects have supported directly or indirectly	This is a proxy for RM capacity development	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youth

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants
2.2 Result 2: To what extent has the project enhanced the capacities of local communities, governmental and non-governmental stakeholders (including youth, women and civil society) in selected landscape units to adopt and use improved sustainable land/forest management practices and technologies, as part of the implementation of their (GGWSSI)	SLM and restoration practices and technologies adopted by the stakeholders	Indicator will assess disaggregated data (sex, age, etc.) and identify specific practices and technologies	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths
action plans?	Beneficiaries adapt SLM/forest practices and technologies without project support – including plans to do	Indicator will assess disaggregated data (sex, age, etc.) and identify specific practices and technologies	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths
	Are the stakeholders able to implement the practices and technologies without the project's support?	Indicator will assess disaggregated data (sex, age, etc.) and identify specific practices and technologies	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths
	Observable changes in livelihoods at community levels where the AAD project has intervened	Indicator will assess disaggregated data (sex, age, etc.) and identify specific practices and technologies Focus on food security, poverty, resilience, coping capacity, consumption, household investment levels	Document review: narrative progress reports and MTR Interviews: stakeholders at all levels focusing on national AAD coordinators, local authorities and beneficiary representatives, including women and youths

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants
	Role of SLM/forest in green growth messages at the national level	This is a proxy for the project's contribution to green growth	Interviews: national AAD, UNCCD and GGWSSI coordinators, and United Nations Environment Programme (UNEP) representatives
	Conflict resolution mechanisms at the community level		Interviews: national AAD coordinators, implementing NGOs and beneficiaries
	Evidence of unintended positive and/or negative results Evidence of use of unintended results Evidence of mitigating measures for unintended negative results	This 3-in-1 indicator is a proxy for the project's flexibility	Interviews: national AAD coordinators, implementing NGOs, and beneficiaries (disaggregated)
	Evidence of use of emerging opportunities	This is a proxy for flexibility	Interviews: national AAD coordinators, implementing NGOs and beneficiaries (disaggregated)
2.3 Result 3: To what extent has the project enhanced knowledge and awareness among key target audiences and stakeholders from the European Union and ACP countries regarding causes and appropriate measures for combating descrification	Use of exchange of experiences from other project countries resulting in improvement of AAD results		Document review: progress reports, Interviews: AAD coordinators
appropriate measures for combating desertification and land degradation and improving resilience to climate change, while promoting sustainable livelihoods?	Knowledge-sharing success stories	The scope of the evaluation will not allow for a comparative analysis of communication strategies. The indicator is a proxy for appreciation of strategies	Interviews: AAD coordinators, GGWSSI coordinators, UNCCD focal points and other implementing partners

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants	
2.4 How effective has the project been in contributing to UNCCD strategies, GGW, SDG 13, and SDG 15?	Evidence of project outcomes	This will mainly be based on anecdotal evidence	Document review: progress reports, LF monitoring and MTR Interviews: global and national AAD, UNCCD and GGW coordinators, and UNEP representatives	
3. Results, Output level – Efficiency & coordination To what extent were management arrangements ap	propriate to efficiently deliver the	project?		
3.1 To what extent did FAO deliver on project identification, concept preparation, appraisal, preparation, approval and start-up, oversight and supervision?	Evidence of FAO planning and oversight documents and negotiations		Document review: Prodocs, concept notes, Steering Committee meeting minutes, progress reports and MTR	
	Evidence of risk management		Interviews: global and national AAD coordinators, European Union counterpart, GGW global coordination and FAO management	
3.2 To what extent are the financial and human resources allocated by FAO appropriate to support the implementation of the AAD strategies, approaches and planned results?	Extent to which the financial and human resources allocated by FAO match programmatic ambitions		Document review: Prodocs Steering Committee meeting minutes, progress reports, financial reports and MTR	
	Extent to which financial and human resources were available in a timely manner vis-à-vis workplans at all levels		Interviews: global and national AAD coordinators, European Union counterpart, GGW global coordination and FAO management	
	Evidence of the impact of insufficient and delayed resource availability for CP implementation			
3.3 To what extent were the management arrangements, M&E and governance structure of the	Evidence of Steering Committees' use and follow-up on progress reports, including reports on status			

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants	
project adapted to deliver the attended results in an efficient manner?	of indicators in the logical framework		Document review: Prodocs, Steering Committee meeting minutes, progress reports, financial reports and MTR	
	Evidence of national project follow-ups to steering committee decisions, progress reports and indicators in the logical framework		Interviews: global and national AAD coordinators, European Union counterpart, GGW global coordination and FAO management	
	Evidence of use of a baseline			
	Evidence of follow-up to MTR			
3.4 How effective has the project been in coordinating with other relevant projects and initiatives such as FAO, GGWSSI and UNCCD-led projects	 level of coordination level of harmonized approaches, such as for national capacity development level of project building on existing/ ongoing initiatives and resources 		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR Interviews: global and national AAD, UNCCD and GGW coordinators, UNEP representatives and other projects and initiatives at national and regional levels	
	Evidence of institutionalized partnerships			
	Evidence of results emanating from partnerships			
3.5 To what extent have the involved stakeholders owned AAD's processes and progresses?	Evidence of national partners' role in project planning and implementation (including the final beneficiaries)		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR	

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants	
	Evidence of factors that have contributed to or hindered ownership		Interviews: global and national AAD, UNCCD and GGW coordinators, implementing partners, beneficiaries, and local associations and authorities	
3.6 What is the added value of the AAD partnership/implementation set-up, particularly in the context of multiplication of SLM-based initiatives (AFR100, GGW, Bonn Challenge, etc.)	Evidence of complementarity		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR Interviews: global and national AAD, UNCCD and GGW coordinators, UNEP representatives, and other projects and initiatives at national and regional levels	
4. Equity/gender How have gender equality and human rights issues	been addressed in project design a	nd implementation?		
4.1 To what extent were gender equality and human rights considerations reflected in AAD design and implementation?	Evidence of localized/context- specific gender analysis and human rights analysis for project planning and monitoring		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR	
	Evidence of targeted initiatives for women, youths, the elderly and people with disabilities in project implementation		Interviews: global and national AAD, UNCCD and GGW coordinators, implementing partners, beneficiaries, and local associations and authorities, women's and youth associations and women's groups	
	Evidence of monitoring data disaggregated for sex, age and other socioeconomic factors			
4.2 To what extent have women, youths and other groups, such as the disabled, elderly and displaced, participated in AAD planning and implementation?	Evidence of disaggregated data about participants in project events		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR	

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants	
			Interviews: global and national AAD, UNCCD and GGW coordinators, implementing partners, beneficiaries, local associations and authorities, national women's associations	
5. Sustainability To what extent are the project's achieved results su	stainable?			
5.1 What are the prospects for the ultimate beneficiaries of the project (community members) for sustaining the achieved results after completion of the project?	Evidence of approaches being locally adaptable (resource-wise)		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR Interviews: global and national AAD, UNCCD and GGW coordinators, implementing partners, beneficiaries, and local associations and authorities	
	Evidence of replication of the AAD model in other communities			
5.2 What are the prospects for the country-partners and GGWSSI coordination to sustain the achieved results after completion of the project, and in particular, to scale up the initiative without the project's support?	Evidence of coordination and harmonization of AAD activities with GGW		Document review: Prodocs, Steering Committee meeting minutes, progress reports and MTR Interviews: global and national AAD, UNCCD, and GGW coordinators and implementing partners	
	Evidence of reference to AAD and AAD models in GGW initiatives			
5.3 Are there sustainability strategies in place that are in synergy with other FAO initiatives, international development partners initiatives and the country-partners?	Evidence of exit/transit strategies		Document review: Prodocs, Steering	
	Evidence of references to other initiatives and partners in exit/transit strategies		Committee meeting minutes, progress reports and MTR Interviews: global and national AAD, UNCCE and GGW coordinators, implementing partners, European Union and other funding partners, FAO country offices and technical partners	

Evaluation questions	Sub-questions/indicators	Comments	Data collection sources Data collection methods Informants	
5.4 Which, how, and to what extent could contextual factors/actors threaten the sustainability and further development of the project's results?	Evidence of socio-political stability prospects		Document review: context documents	
	Evidence of natural hazard risk/ management			
6. Progress towards impact To what extent has AAD contributed to the overall ecosystems in ACP countries?	goals to alleviate poverty, end hung	er and improve resilience to	climate change in drylands and other fragile	
6.1 What foundations for longer-term impact of AAD can be reasonably expected for poverty reduction, food security and climate change resilience at local and national levels?	Evidence of AAD results promoting improved livelihoods		Document review: Prodocs, Steering Committee meeting minutes, progress	
	Evidence of improved coping mechanisms at the community level		reports, MTR Interviews: global and national AAD, UNCCD and GGW coordinators, implementing partners, beneficiaries, and local associations	
	Evidence of SLM approaches being mainstreamed in national SDG plans and strategies		and authorities	

Appendix 4. Theory of change narrative and diagram

AAD's theory of change

This evaluation of the AAD project covers a total of a bit more than six years of intervention. At the time of concept formulation, neither the terminology used nor the type of information required in the project document comprised the notion of the TOC, now defined as "a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context". Based on a preliminary document review, a stakeholder analysis and the context analysis presented above, as well as the preparatory evaluation workshop and discussions with key stakeholders and key partners from the project, the evaluation team reconstructed the AAD project's TOC presented in the following figure, which also identifies the focal areas of the evaluation.

As can be seen, the overall intended change expected to occur from AAD's implementation is defined in terms of improved living conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD in ACP countries. This change was supposed to be generated through a number of key outcomes:

enhanced enabling environment and capacity landscape improvement;

SLM and restoration practices and improved income generation activities adopted by local communities;

increased knowledge and awareness of D/LDD challenges (i.e. enhanced ecological literacy), and SLM solutions and sustainable livelihoods in the drylands; and

contribution to UNCCD/GWWSSI implementation.

These outcomes were supposed to be achieved through a set of interrelated outputs that would be generated based on the project's intervention strategy, approaches and principles:

- i. based on the "landscape approach" principles; and through
- ii. an applied research approach, combining modern science findings and technology with traditional and local knowledge;
- iii. piloting, modelling and scaling up;
- iv. active participation of youths and women;
- v. gender equality and empowerment of women;
- vi. baseline at the start and strengthened M&E capacity;
- vii. layered organization: global-regional-national;
- multi-stakeholder/multi-sector collaboration with horizontal and vertical coordination;
- ix. capacity development at all stakeholder levels;
- x. SSC: intra- and inter-continental cooperation in Africa, the Caribbean and the Pacific; and
- xi. communication.

These approaches are based on the project's key strategies:

- i. improve living conditions for people in the drylands of Burkina Faso, Ethiopia, Fiji, the Gambia, Haiti, the Niger, Nigeria and Senegal, and reduce their vulnerability to climate change, climate variability and drought, and a general adverse socio-politico environment;
- ii. durably improve the state and health of the dryland ecosystems in the participating countries addressing and improving their resilience to climate change, climate variability and drought;
- iii. create performant knowledge structures for future sustainable land management; and
- iv. create international awareness of the challenges of land degradation and drought in dryland areas for higher impact and reinforced collaboration.

The strategies respond directly to the key challenges addressed by the AAD project, namely:

- i. persistent land degradation;
- ii. lack of adequate and integrated use of sustainable land management techniques over larger surface areas (be they traditional or modern);
- iii. lack of technical, organizational and financial support to local communities;
- iv. low-performing vertical communication structures that do not monitor spread, outreach or uptake, or learning effect; and
- v. a widespread tradition of sectorial/siloed approaches.

These key challenges will be addressed through the expected overall change that will come from reaching the project's overall objectives, i.e. improved living conditions and productivity of the agrosilvopastoral landscapes affected by D/LDD in ACP countries.

The key implementation assumptions are:

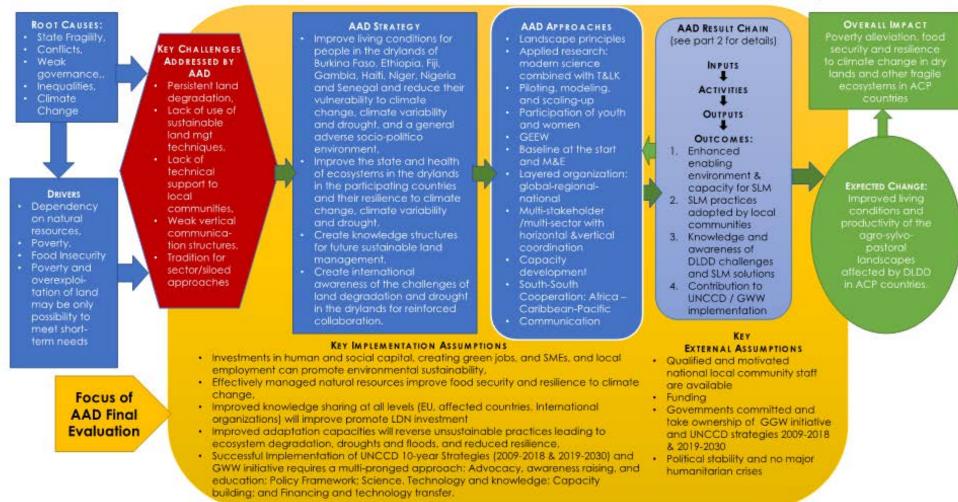
- i. investments in human and social capital (that will among others create green jobs), SMEs and local employment can sustainably promote environmental durability and resilience;
- ii. likewise, these investments will sustainably improve livelihoods;
- iii. effectively managed natural resources, centring on trees/shrubs for non-timber (by)products and browse, and herbs/grasses for fodder, improving food security and resilience to climate change;
- iv. improved knowledge sharing at all levels (South-South and South-North, involving FAO, AUC, European Union, affected countries, (inter)national (non)governmental organizations) improves, consolidates and promotes LDN investments;
- v. improved adaptation capacities reverse unsustainable practices that have been shown to lead to ecosystem degradation, droughts and floods, and reduced resilience; and
- vi. successful implementation of subsequent UNCCD ten-year strategies (2009-2018 and 2019-2030) and the GWW initiative requires a multi-pronged approach: advocacy, awareness raising, and education; policy framework; science, technology and knowledge; capacity building; and financing and technology transfer.

Moreover, the project works within a number of external assumptions (sometimes called/considered risks), i.e. factors that are influences from the environment on the project and as such "are given" and can basically not be influenced too much; they include:

- i. adequately qualified and motivated national/local community staff are available for project implementation;
- ii. funding as planned will be available in a timely manner;
- iii. governments are committed and take ownership of GGWSSI initiatives, 2009-2018 and 2019-2030 UNCCD strategies; and
- iv. political stability and no major humanitarian crises will take place during project implementation.

Appendix Figure 1. Reconstructed AAD TOC - Part 1

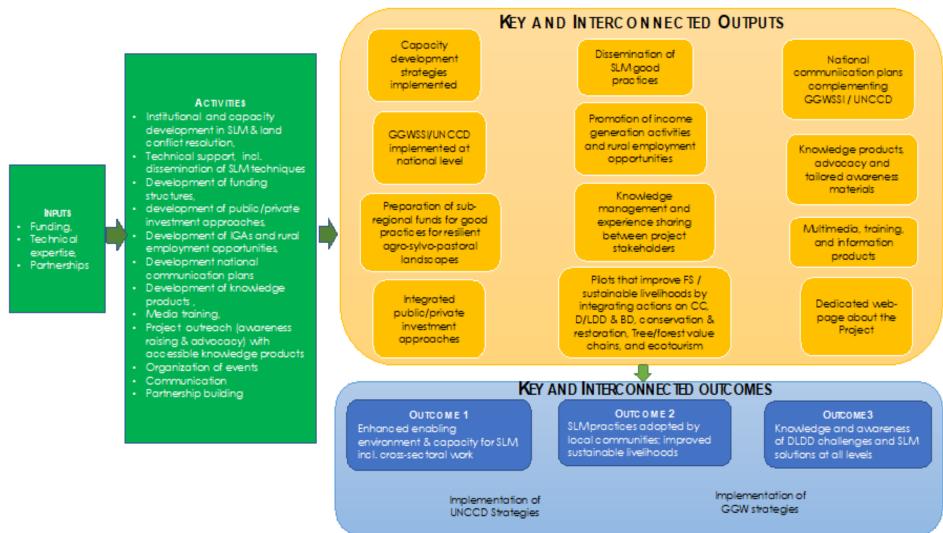
RECONSTRUCTED THEORY OF CHANGE: ACTION AGAINST DESERTIFICATION PROJECT - PART 1/2: OVERALL



Source: Elaborated by the evaluation team.

Appendix Figure 2. Reconstructed AAD TOC - Part 2

THEORY OF CHANGE: ACTION AGAINST DESERTIFICATION PROJECT - PART 2/2: RESULT CHAIN



Appendix 5. List of country reports

The following internal (unpublished) country reports have been produced:

Savadogo, K. 2020. Aide-mémoire de l'évaluation finale du projet ACD au Burkina Faso. Ouagadougou, FAO.

Gebremedhn Kihshen, Y. 2020. Aide-memoire of the final evaluation of AAD project in Ethiopia. Addis Abeba, FAO.

Bulai, S. 2020. Aide-memoire of the final evaluation of AAD project in Fiji. Suva, FAO.

Sowe, A. 2020. Aide-memoire of the final evaluation of AAD project in the Gambia. Banjul, FAO.

Michel, J.C. 2020. Aide-mémoire de l'évaluation finale du projet ACD en Haïti. Port-au-Prince, FAO.

Tinno Ibrahim, I. 2020. Aide-mémoire de l'évaluation finale du projet ACD au Niger. Niamey, FAO.

Idris Giginya, U. 2020. Aide-memoire of the final evaluation of AAD project in Nigeria. Abuja, FAO.

Walil Gueye, P. 2020. Aide-mémoire de l'évaluation finale du projet ACD au Sénégal. Dakar, FAO.

Appendix 6. How AAD addressed the beneficiaries' needs and expectations as reconstructed during the 2020 evaluation field visits

In Fiji, respondents appreciated that "the scale of activities was most appropriate for participating communities". Additionally, Nature Fiji-Mareqeti Viti indicated that AAD their improved understanding of the issues faced by the communities and the opportunities presented to address their organization's main goal in protecting biodiversity. They also said that the process followed in undertaking the socioeconomic baseline surveys had assisted communities to better appreciate their natural resources. However, SPC, an implementation partner of the project, had a different view. They indicated that, while the activities for which they had been contracted under their letter of agreement (LOA) were all initially considered as priorities, the latter changed during implementation. They had developed a community-based participatory land use plan for their target community in Dogurubut were unable to implement any field activities due to the lack of funding. Similarly, in the case of the socioeconomic baseline surveys conducted by Nature Fiji-Mareqeti Viti, no follow-up field activities were implemented because of the same resource limitation – so in this case, lack of (timely) fund mobilization clearly acted as a demotivating factor.

In Haiti, it was confirmed that reforestation actions indisputably meet real needs. Deforestation leads to erosion and damages the environment. However, according to respondents, the approach chosen by the project did not sufficiently consider certain local realities: "The chances of survival of trees planted on uncultivated plots are very low. Seedlings do not benefit from maintenance work and are exposed to trampling by farm animals." There were also comments on the choice of species. Greater satisfaction of needs would have been achieved if the project had chosen the sites to be reforested in concertation with the local authorities. Some partners claimed that project officials did not even monitor the success rate of trees planted (see also the section on M&E). On the other hand, the project was implemented in the aftermath of Hurricane Matthew in 2016 and thus brought about the creation of temporary jobs, which allowed for generation of income for the benefit of different layers of the population. Regarding beekeeping, the old drum hives have been replaced by modern beehives that are easier to handle, which makes it possible to enhance existing vegetation and strengthen the tree cover by honey plants, such as moringa or tamarind.

When asked which priorities the project did not address, most comments converged around the lack of attention for quick-win, income-generating activities. In Ethiopia, this would have meant borehole provision for irrigation and other purposes, but also beekeeping and improvement of cattle breeds. Here, the project had been designed to address natural resource degradation (pastureland and crop loss, contributing to the localization of food insecurity following poor rainfall which leads to problems with cattle migration conflicts with transhumants).

Fiji highlighted several points: both SPC and Nature Fiji-Mareqeti Viti (see also above) were unable to implement follow-on field planting activities after completing the socioeconomic baseline surveys and the community-based participatory land use plan. In the case of SPC, the inability of FAO to provide timely advice regarding the project extension meant that they were unable to utilize the funds that had been allocated to them under their LOA for the required follow-on activities. The Nasavu community indicated that their need for additional seeds and seedlings to continue with their restoration activities was not satisfied. They had also wanted to have proper road access to the community's restoration site, but the project was unable to provide it. It was not possible to verify whether road access was ever discussed or considered by AAD, but the mid-term evaluation had mentioned that the site was originally selected by the community as their reforestation project under the Ministry of Forestry, and AAD had only provided support in line with its restoration objectives. With regard to the continuous collection and provision of seeds and seedlings, the community found they had not been sufficiently empowered to do this

independently, especially given that the project was ending. The Bua Provincial Office saw the lack of linkage of produce to markets as an issue for the livelihood part of AAD. Availability/presence of markets would have generated the necessary interest to ensure continuing planting and maintenance of reforested areas beyond the project intervention horizon, and beekeeping, and therefore continuity of supply. In this regard, however, the women of Nasavu, including the leader for the women's group, expressed their appreciation for the AAD support in the selling of honey from their first harvest, in terms of bottling and labelling assistance.

The Gambia deplored the lack of capacity building and training of both youths and women on the entire beekeeping value chain (production, processing, marketing and consumers) that should/could have served as a necessary follow-up of capacity building on hive management and honey harvesting. Also here, there was a felt need for provision of watering points to support beekeeping, whereas they would have appreciated development initiatives on sustainable ecotourism as an income-generating activity.

The Niger had a whole wish list of often low-cost interventions or equipment they would have liked the project to come in on: construction of a seed storage store, provision beekeeping equipment, water for people and animals, seed collection tarpaulins, construction of stone bunds on certain sites, strengthening of technical capacities on soap production, plastic waste management, construction of kiosks for the sale of processed products, oil extraction units for *Balanites aegyptiaca* fruits, provision of small working materials (labels for processed products, gloves, boots, glasses, wheelbarrows, shovels), participation in fairs outside of the country, etc.

Nigeria added a few out-of-project-scope issues: capacity building on animal husbandry, provision of health care facilities, schools, construction of small earth dams for irrigation, provision of rural electrification through small-scale solar lighting systems (to enhance security).

Senegal expected AAD to put more emphasis on beekeeping; conservation of green fodder; effective functioning of women's microenterprises; installation of school gardens in primary schools in the project area; connection of water pipes to supply the peripheral hamlets of the Community Nature Reserve in Khoily Alpha; opening access roads between the villages in the area; electrification of village-centres through solar energy – here part of the activities mentioned were indeed within the project's mandate and activity portfolio.

Annexes

Annex 1. Quasi-experimental satellite evidence of the impacts

https://www.fao.org/3/cb8804en/cb8804en.pdf

Annex 2. Africa's drylands: from problem to sustainable dryland development

https://www.fao.org/3/cb8805en/cb8805en.pdf

Annex 3. Financial business model

https://www.fao.org/3/cb8806en/cb8806en.pdf

Annex 4. Some ideas from the field

https://www.fao.org/3/cb8807en/cb8807en.pdf

Office of Evaluation evaluation@fao.org www.fao.org/evaluation