KNOWING WHAT WORKS

Central project evaluation

Market Oriented Agriculture Programme (MOAP), Ghana

Project number 2015.2088.1

Evaluation Report

On behalf of GIZ by Christian Carlos Keil and William Agyekum Acquah (FAKT Consult)
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Abbreviations

AEA	Agricultural extension agent (DDA)
AgriBiz	Sustainable Employment through Agribusiness (GIZ)
ASWG	Agricultural Sector Working Group
BMZ	German Federal Ministry for Economic Cooperation and Development
CABI	Centre for Agriculture and Bioscience International
CPE	Central project evaluation
DAC	Development Assistance Committee
DC	Development cooperation
DCS	Directorate of Crop Services (MoFA)
DDA	District Department of Agriculture
DP	Development partner
EU-GAP	European Union-Ghana Agricultural Programme
FAGE	Federation of Associations of Ghanaian Exporters
FAO	Food and Agricultural Organisation
FASDEP	Food and Agriculture Sector Development Policy
FBO	Farmer-based organisation
GAPs	Good agricultural practices
GEPA	Ghana Export Promotion Authority
GIC	Green Innovation Centres for the Agriculture and Food Sector (GIZ)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GMPs	Good manufacturing practices
GoG	Government of Ghana
HACCP	Hazard Analysis Critical Control Points
IFOAM	International Federation of Organic Agriculture Movements
IFPRI	International Food Policy Research Institute
IBM	Inclusive business model
KfW	Kreditanstalt für Wiederaufbau
M&E	Monitoring and evaluation
METASIP	Medium-Term Agricultural Sector Investment Programme
MI	Module indicator
MLGRD	Ministry of Local Government and Rural Development
MOAP	Market Oriented Agriculture Programme
MoFA	Ministry of Food and Agriculture
MSMEs	Micro, small and medium-sized enterprises
OECD/DAC	Organisation for Economic Co-operation and Development/Development Assistance Committee

OVCF	Outgrower and Value Chain Fund (KfW)
PERD	Planting for Export and Rural Development
PFJ	Planting for Food and Jobs
PGS	Participatory guarantee system
PN	Project number
PPMED	Policy Planning, Monitoring and Evaluation Directorate (MoFA)
PPRSD	Plant Protection and Regulatory Services Directorate (MoFA)
PTB	Physikalisch-Technische Bundesanstalt
SPS	Sanitary and phytosanitary
TCDA	Tree Crop Development Authority
ToC	Theory of change
VC	Value chain
VCC	Value chain committee
VCD	Value chain development
WIAD	Women in Agricultural Development Directorate
WUA	Water user association

The project at a glance

Ghana: Market Oriented Agriculture Programme (MOAP)

Project number	2015.2088.1
Creditor reporting system code(s)	31110 - Agricultural policy and administrative management (50%), 31120 - Agricultural development (30%), 31162 - Industrial crops/export crops (20%)
Project objective	To improve quality production in the agricultural sector.
Project term	January 2017 - March 2021
Project value	EUR 22,600,000 (of which EUR 10,000,000 is cofinanced by the European Union (EU); MOAP South EUR 11,250,000 and MOAP North-West: EUR 11,350,000)
Commissioning party	German Federal Ministry for Economic Cooperation and Development (BMZ), EU
Lead executing agency	Ministry of Food and Agriculture (MoFA)
Implementing organisations (in the partner country)	Ministry of Local Government and Rural Development (MLGRD) at district and regional levels In cooperation with actors in the Ghanaian agricultural private sector and their respective associations
Other development organisations involved	German development cooperation: KfW, PTB Other bilateral cooperation: USA, Canada, Netherlands, France, Japan Multilateral cooperation: Food and Agricultural Organisation (FAO), World Bank, European Union (EU), International Fund for Agricultural Development (IFAD), African Development Bank (AfDB)
Target group(s)	Smallholders (<2 ha) and rural population, especially women and young adults (<35 years old) Value chain actors in the private sector: farmers, input dealers, processors, off-takers, exporters and their respective associations Public sector at national and decentralised levels (MoFA, MLGRD)

1 Evaluation objectives and questions

This section aims to describe the purpose of the evaluation, the standard evaluation criteria, and any additional stakeholders' knowledge interests and evaluation questions.

1.1 Evaluation objectives

Central project evaluations of projects commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) fulfil three basic functions: they support evidence-based decisions, promote transparency and accountability, and foster organisational learning within the scope of contributing to effective knowledge management. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH structures the planning, implementation and use of evaluations in order to optimise the contribution made by the evaluation process and evaluation findings to the three basic functions (GIZ, 2018a).

This evaluation is part of the random sample of projects selected by GIZ to undergo a central project evaluation (CPE). The evaluation of the Market Oriented Agriculture Programme (MOAP, PN: 2015.2088.1), which will be referred to throughout the report as 'the project', is a final evaluation.

With respect to the original terms of reference (ToR), a fundamental **limitation regarding the feasibility** of the CPE was detected during the inception phase. Since the project was co-financed by the European Union (EU) from January 2017 through March 2021, the TOR state that (1) the co-financed component in the North-West should be considered and (2) that a predecessor module does not exist. However, MOAP as a German development cooperation (DC) programme has been implemented in the South since 2004, whereas the North-West has been included within the EU-Ghana Agricultural Programme (EU-GAP) only since 2017 and the conclusion date will not come until the end of 2023. Therefore, the situation can be described as having two different intervention scenarios: MOAP South, which represents a long-term development effort financed by BMZ, and MOAP North-West, which is a relatively recent intervention in a very different socio-economic and natural environment embedded in and financed by EU-GAP. Another aspect is that the EU had planned a midterm review in 2021 to assess the progress of EU-GAP.

As a consequence, the following **modifications to the CPE's initial ToR** were made in close coordination with MOAP project team, the EU delegation to Ghana and GIZ's evaluation unit: the evaluation focused exclusively on MOAP South and left MOAP North-West to the EU midterm review in order both to avoid overlapping evaluations and to investigate the long-term effects of MOAP in the South as part of the assessment of the impact criterion. Also, with respect to the project's effectiveness, only the BMZ-funded southern part was evaluated.

The current Covid-19 pandemic posed another challenge for the evaluation. Owing to travel restrictions, the inception and evaluation missions were both conducted semi-remotely and only the local evaluator had an opportunity to conduct on-site visits of project areas and target groups.

A further limitation, which was already felt during the inception phase, concerned the limited availability of the MOAP project team to support the evaluation mission. This challenge has been assumed and addressed by the evaluation team and discussed with MOAP staff. For the evaluation mission, logistical arrangements were organised primarily by the evaluation team, so that the MOAP project team was able to concentrate its efforts on supporting the evaluation through the provision of crucial technical knowledge and experience. Another measure to ensure that project staff could still be available for interviews was the time period selected for the evaluation mission: March 2021, the last month of the project.

1.2 Evaluation questions

The project is assessed on the basis of standardised evaluation criteria and questions to ensure comparability by GIZ. They are based on the Organisation for Economic Co-operation and Development (OECD)/Development Assistance Committee (DAC) evaluation criteria (updated 2020) for international cooperation and the evaluation criteria for German bilateral cooperation (in German): **relevance, coherence, efficiency**, **effectiveness**, **impact** and **sustainability**.

Specific assessment dimensions and analytical questions have been derived from this framework. They form the basis of all central project evaluations in GIZ and can be found in the **evaluation matrix** (see annex). In addition, contributions to the 2030 Agenda for Sustainable Development and its principles are taken into account, as are cross-cutting issues such as gender, the environment, conflict sensitivity and human rights. Also, aspects regarding the quality of implementation are included in all OECD/DAC criteria.

During the inception mission (30 November to 4 December 2020), key stakeholders were interviewed and asked about their potential **specific interests** with respect to the evaluation. Table 1 summarises their stated interests and indicates the sections in the report where they are addressed.

Table 1: Knowledge interests by main evaluation stakeholder groups

Evaluation stakeholder group	Knowledge interests in evaluation/additional evaluation questions	Relevant section in this report
BMZ (desk officer and DC section at the German Embassy)	What impacts, lessons learned and best practices can be drawn from the MOAP experience, especially with respect to income generation and job opportunities at processing level? (Provide relevant knowledge for the new AgriBiz project.)	section 4.1 **impacts and sustainability of predecessor projects** section 5 **conclusions and recommendations**
GIZ sectoral department (FMB)	• How does the Ministry of Food and Agriculture (MoFA) perceive MOAP (including perceptions at different administrative levels)? • How do farmers associations perceive MOAP (especially with respect to sustainability)?	**all OECD/DAC criteria** (sections 4.1 to 4.7) section 4.7 **sustainability**
GIZ MOAP project team	• How do partners perceive the long-term effects of MOAP in the South? • What are the effects of the crop protection services (plant clinics) and what outreach to farmers can be observed? • How does MoFA's Plant Protection and Regulatory Services Directorate (PPRSD) plan to sustain the established plant clinics approach in the future?	section 4.1 **impacts and sustainability of predecessor projects** section 4.4 **effectiveness** section 4.7 **sustainability**

2 Object of the evaluation

This section aims to define the evaluation object, including the theory of change, and the results hypotheses.

2.1 Definition of the evaluation object

The main object of evaluation is the Market Oriented Agriculture Programme in Ghana (MOAP), project number (PN) 2015.2088.1 (mainly working packages 001 and 002), as described in the original project proposal (GIZ, 2016b).

The **evaluation object** can be delineated according to the following categories.

Temporal delineation: the focus is on the current module, implemented from January 2017 through March 2021 (4 years and 3 months). The initial timeline within the original module proposal was intended to be only three years but it was extended on the basis of two modification offers submitted to BMZ (in December 2019 and October 2020). The module followed a predecessor module implemented from January 2014 through December 2016 (PN 2012.2105.0). The first interventions of German DC with respect to market-oriented agriculture date back to 2004 and will be considered by this CPE within the impact and sustainability criteria (sections 4.1 and 4.7). While not exactly a follow-on project, a new module has been prepared and is now (in 2021) being implemented in the sector of sustainable economic development with a strong relationship to the agricultural sector: 'Sustainable Employment through Agribusiness (AgriBiz)' (PN 2020.2239.0). The new module's implementation is planned to run from April 2021 through March 2024. It includes MOAP North-West, is co-financed by the EU, and will continue after the phasing-out of MOAP South in March 2021.

Financial delimitation: the evaluation took into account the BMZ budget of EUR 10,100,000 from the original project proposal, excluding the subsequent modification offer in which a new EU co-financed component was added in the North-West (see section 1.1 for explanation). However, the modification reduced the initial budget by EUR 1,350,000 owing to so-called ineligible costs related to the co-financed MOAP North-West component. Subsequently, the project received an additional EUR 2,500,000 for a 12-month extension (GIZ, 2019a). Hence the overall project budget to be included within this CPE, which covers only MOAP South, totals EUR 11,250,000.

Geographical delimitation: the project was implemented in the regions of Brong Ahafo (since March 2018, split into Ahafo, Bono, and Bono East regions), Central, Volta and Eastern. In this intervention area, which is also called 'MOAP South', the project has been officially active in a total of 20 districts:

- **Bono region** (2): Sunyani West (#1), Wenchi Municipal (#2)
- **Bono East region** (3): Atebubu North (#1), Kintampo North (#2), Nkoranza Municipal (#3)
- **Central region** (5): Abura Asebu Kwamankese (AAK, #1), Ajumako Enyan Essiam (AEE, #2), Assin North Municipal (#3), Ekumfi (#4), Komenda Edina Eguafo Abrem (KEEA, #5)
- **Eastern region** (5): Akuapem South (#1), Lower Manya Krobo (#2), Upper Manya Krobo (#3), West Akim (#4), Yilo Krobo (#5)
- **Volta region** (5): Akatsi North (#1), Akatsi South (#2), Kpando Municipal (#3), North Dayi (#4), South Tongu (#5)

Approach: **t**he project used a multi-level**,** multi-actor approach based on the ValueLinks approach, a methodology for systematic value chain development (VCD) designed by GIZ. Four selected value chains (VCs) – pineapple, mango, citrus and vegetables – were promoted starting from market requirements, mainly for export, and extending to production standards and techniques. The capacity development strategy entailed

competency-based training at the individual level, organisational development and institutional strengthening in public and private organisations and associations, cooperation within the sector and between VC actors, and enhancement of the political framework conditions.

Political and sectoral context and framework conditions

Since the start of MOAP in 2004, the agricultural sector has been guided by the Medium-Term Agricultural Sector Investment Programme (METASIP) and the Food and Agriculture Sector Development Policy (FASDEP II). The aim of the policy is twofold: first, to supply the population with staple foods; and second, to modernise and commercialise agriculture. An EU export ban on a handful of Ghanaian vegetables in 2015/2016 related to sanitary and phytosanitary (SPS) issues alerted stakeholders to the need to improve quality production in the horticultural subsector.

The beginning of the project in January 2017 coincided with a change in the ruling national political party. A new minister was appointed as political head of MoFA and charged with the mandate to pursue new priorities and strategies for the sector. The key government flagship programme is Planting for Food and Jobs (PFJ; implemented by MoFA). Under the umbrella of PFJ, there are several other programmes such as Planting for Export and Rural Development (PERD; initially implemented by MLGRD and since 2019 by MoFA). The PERD programme is also linked to the government's 'One District One Factory' initiative. The overall strategy seeks to reduce the import bill by producing staple foods locally for consumption, increase export rates especially of processed products, and create jobs.

In line with the decentralisation programme in Ghana, MoFA is one of the ministries that was decentralised during the project. Agricultural extension agents (AEAs) now report to metropolitan, municipal and district assemblies under the Local Governance Act of 2016 (Act 936), and therefore come under the purview of MLGRD. However, the AEAs still maintain vertical technical relationships with MoFA regional and national directors.

The Tree Crop Development Authority (TCDA) was established as a regulatory body in 2019 (Act 1010) and inaugurated in September 2020 to strengthen the development of six tree crops: cashew, shea, mango, coconut, rubber and oil palm. TCDA is now in charge of the regulation and development of production, processing, trading and marketing of the selected tree crops.

2.2 Results model including hypotheses

An overall results model was not devised for the whole programme, but there are separate models for outputs A, B and E as well as a model that integrates outputs C and D. Only two of the four results models were updated in 2018 (C&D, E). During the inception phase, an overall results model was reconstructed by the evaluation team and discussed with the MOAP project team.

Overall project structure

The **project's objective** states that 'quality production in the agricultural sector is improved'. The focus on quality was chosen during the project's appraisal because of a ban on the export of some fresh products from Ghana to the EU in late 2015 related to pest issues. When the European market was closed to five Ghanaian fresh agricultural products, the issue of quality became critically important for the country's export-oriented agriculture.

The **political partner and implementing institution** was the Ministry of Food and Agriculture (MoFA). Within MoFA, the Plant Protection and Regulatory Services Directorate (PPRSD) and the Directorate of Crop Services

(DCS) as well as MoFA staff at regional and district[1] levels played a major role in the technical implementation of the project. The Ministry of Local Government and Rural Development (MLGRD), which is tasked with delivering public services at local level under the Local Governance Act of 2016 (Act 936), was the other governmental institution mentioned in the project proposal. In practice, however, MLGRD still has very little influence at national level compared with MoFA.

Other **implementing partners** from the private sector were the Federation of Associations of Ghanaian Exporters (FAGE), the Sea-freight Pineapple Exporters of Ghana (SPEG), the Fruit Processors and Marketers Association of Ghana (FPMAG), the Vegetable Producers and Exporters Association of Ghana (VEPEAG), market-oriented farmers and farmer-based organisations (FBOs), processing and trading businesses, and actors involved in product certification schemes (such as Ghana Green Label, GlobalG.A.P. and HACCP).

The political partner and the implementing partners were also the **direct target group** of MOAP as they were important intermediaries for reaching out to the **final beneficiaries**: smallholders and rural population in agricultural processing and trade (GIZ, 2016b). With respect to the final beneficiaries, the project aimed to create decent job opportunities and increase income, with a special focus on women and young adults.

Output level

The project encompasses the following five outputs:

- Output A: political and legal framework for quality-oriented agricultural production
- Output B: decentralised government structures for the promotion of agricultural development
- Output C: climate-sensitive production of quality horticultural products
- Output D: inclusive business models and service provision in the value chain links
- Output E: performance and support of interest groups in the value chains

The following account of the project's **theory of change** (ToC) is displayed graphically in the reconstructed results model in Figure 1 below. Please use the figure to follow the explanations in the text.

Output A aimed to improve the political and legal framework for the development of agricultural value chains and quality-oriented production. The overall goal was to reduce the number of quarantine interceptions of imports to the EU (MI5) and ensure the food safety of agricultural products for domestic (R11) and export markets. An improved legal framework (MI1), together with product-related strategies to promote value chains (A1), improved regulatory instruments (A2) and organisational development (including enhanced data management), would lead to a better overall quality assurance system. The underlying assumption was that domestic and foreign investments in the promotion of quality horticultural production follow the developmental guidelines of the strategies pursued by MoFA. However, after a new government took office in 2017, MOAP faced difficulties with its political partner MoFA. Thus, the project's focus shifted away from the political level to a more technical level. Given that the EU export ban on fresh products from Ghana was a key obstacle to be removed, MoFA's Plant Protection and Regulatory Services Directorate (PPRSD) became the main focal point for the implementation of MOAP at national level. The promotion of regulatory and enforcement capacities in the agricultural sector, especially with respect to export products leaving the country through exit points (airports and harbours), became the focus of project activities within output A.

The actual **key underlying assumptions** were that shipments and air cargo to the EU are not sufficiently checked at exit points and that it is the duty of government authorities (PPRSD) to ensure quality control. Also, the PPRSD and decentralised agricultural administrations have budget funds available for food safety and SPS inspections. In addition, by strengthening regulatory instruments (A2) and the capacities of PPRSD, the

1 Regional Agricultural Department (RAD), Directorate of Agricultural Extension Services (DAES)

enhanced enforcement of food safety and SPS (sanitary and phytosanitary) regulations (R5) leads to increased compliance because exporters face heightened risks of interception.

In conclusion, the actual project intervention within output A turned out to be rather tactical, using as much as possible the limited political space for manoeuvre, but without a strategic direction shared by MoFA.

The following **risk** for the achievement of indicator A1 is documented in the project's results matrix: a lack of budget funds might hinder compliance with food safety procedures and legislation.

Output B was designed to strengthen decentralised government institutions and improve their services for the promotion of agricultural development. The rationale was to turn the public sector into a trusted, competent facilitator of value chain development and a provider of demand-oriented services to stimulate stakeholder cooperation. The main activities involved the capacity development of government staff (MoFA, MLGRD) at district level (e.g. in facilitation, participatory planning, the ValueLinks approach, regulations and standards on food safety and product quality, good agricultural practices), the facilitation of linkages between the public and private sectors, the assessment of infrastructure, and support to logistics and public-service delivery.

The **key underlying assumptions** were that public services at the decentralised level are not sufficiently demand-oriented and therefore have significant room for improvement. To this end, it was assumed that agricultural administrations have budget funds available for food safety inspections and other services and that the private sector is willing and able to contribute to improving agricultural services (e.g. through training and infrastructure). Also, through capacity development and advisory support, the role and service delivery of decentralised government actors are strengthened (R1, DAC cross-sectoral policy marker Participatory Development/Good Governance-1) and the private sector is encouraged to invest in value chain development (R2, B1) and the operability of agricultural infrastructure (B2).

The following **risk** for the achievement of indicator B2 is documented in the project's results matrix: there are land conflicts in the South, especially in peri-urban areas.

Outputs C and D were very much connected. Output C sought to improve climate-sensitive production of quality horticultural products, while output D strived to increase the capacity of value chain actors to implement inclusive business models (IBM) and provide services. The main objective of both outputs was to improve quality production, which was to be confirmed by increasing the certification of farmers and production units in accordance with sustainability standards (C2). To this end, the main activities involved the capacity development of farmers and processors, the preparation of didactic materials and methods (extension videos and demonstration plots), and support for local certification schemes (Ghana Green Label Standard, Participatory Guarantee System), international certification schemes (GlobalG.A.P., organic standard HACCP, FSCC 22000) and domestic consumer sensitisation. In addition, off-takers were trained in contract farming and outgrower schemes, and support was given to business plan development and marketing (domestic and export).

Through capacity development, agricultural production services (B1, R3, D1) should be improved and good agricultural practices (GAPs) and good manufacturing practices (GMPs) should be promoted. Consequently, the adoption of GAPs (C1, DAC cross-sectoral policy marker Environmental and Resource Protection, Ecological Sustainability-1), post-harvest management (R6) and processing techniques (R7), together with available agricultural infrastructure (B2), will lead to an increase in certified producers (C2).

The **key underlying assumptions** were that private actors (e.g. farmers, processors and off-takers) are willing and able to change their patterns of behaviour to achieve increased quality production and cooperation and investment in common interests (e.g. services and infrastructure) and that they lack the training and orientation to do so. It was also assumed that the private certification system ensures product quality and contributes to

more resilient agricultural production in the face of climate change (DAC cross-sectoral policy marker Adaptation to Climate Change-1). Finally, it was assumed that product markets offer sufficient monetary incentives to produce quality products for the market.

The following **risks** for the achievement of output D indicators are documented in the project's results matrix:

- Youth do not seem very interested in agriculture. Additionally, migration to cities or even to Europe is an issue and factors like financing mechanisms for outgrower schemes are insufficient, too complicated and too expensive.
- New pesticides that are harmless to health and the environment and necessary for quality production need to be registered with the Ghana Environmental Protection Agency (EPA), but the cost of the process is prohibitive.
- Contract farmers jeopardise the financing of services offered by buyers when they act improperly by selling percentages of their harvest to non-contractual partners.

Output E targeted the performance of value chain interest groups. It aimed to strengthen private-sector cooperation and organisation (R4) within the specific value chains supported by MOAP South (mango, pineapple, citrus and vegetables) through training, advice and finance. One result was the submission of advocacy cases on value chain development to the respective public institution (E2), with backing from the members of an interest group. Better private-sector cooperation (R4), embedded (D1) and improved (R3) agricultural services, government actors ready to facilitate rural development and meet private-sector demands (R1), and easier access to finance (R8) should lead to an improved business environment (R9).

The **key underlying assumptions** were that public stakeholders (ministries, authorities) are interested in solutions developed in cooperation with the private sector and that the private sector is willing and able to cooperate and invest in joint efforts and to manage shared resources with minimal political intervention. An improved business environment will actually establish a win-win situation that can serve as leverage for VC development as it builds the trust needed for further cooperation and private-sector investment.

Outcome and impact level

The module's main objective – 'quality production is improved in the agricultural sector' – is quite well represented by output indicators B3 (compliance with regulations) and C2 (certification in accordance with sustainability standards), since both indicators can be located at outcome level between 'use of output' and 'benefit'. The **key underlying assumptions at outcome level** were that there is existing demand for quality agricultural products (export and domestic) and that quality is represented by compliance with regulations (B3) and product certifications in accordance with sustainable standards (C2). In addition, it was assumed that Ghanaian producers, processors and traders can provide these supplies at an acceptable price and with acceptable regularity (competitiveness). If these assumptions (based on others mentioned at output level) prove true, then an increase in quality products will lead to:

- the availability of safe fruits and vegetables on the domestic market (R11);
- a reduction in quarantine interceptions of imports to the EU (MI5), which in turn contributes to:
- higher sales figures and an increase in turnover for the largest off-takers of certified products sold in the domestic market (MI4), which is then reinvested and leads to:
- the creation of new jobs for women and young people in production and processing (MI3, DAC cross-sectoral policy marker Gender Equality-1) and increased household income for supported farmers (MI2) owing to higher prices and/or increased yields.

A **potentially unintended negative result** at outcome level might be that the creation of new job opportunities for women and younger people (MI3) could result in precarious employment.

At **impact level**, the following results are in line with the results at outcome level:

- The application of climate-sensitive GAPs (C1) and the availability of operational agricultural infrastructure (B2) will have positive effects on soil fertility, moisture/water management, etc., which will make smallholders more resilient to weather extremes and lead to increased reliability of yields (R12, DAC cross-sectoral policy marker Adaptation to Climate Change-1).
- Value chain development and quality production will contribute to rural and livelihood development at local and regional levels (DAC cross-sectoral policy markers Rural Development and Food Security-2 and Poverty Orientation-1).
- Increased compliance with regulations (B3), growing numbers of producers certified in accordance with sustainability standards (C2), higher reliability of yields (R12) and a reduced number of quarantine interceptions of imports to the EU (MI5) will lead to an increase in exports of agricultural products from Ghana to the EU (R13, DAC cross-sectoral policy marker Trade Development-1) because more and better agricultural products are being produced that meet the demand in European markets and are able to compete internationally.

The **underlying assumptions at impact level** were that horticultural products are attractive for smallholders because they are labour-intensive and can be produced cost-effectively on small plots. Also, farmers are/become economically motivated to apply climate-sensitive GAPs and have access to relevant infrastructure. Strengthening the role of the private sector will have a positive influence on government sector policies and investments. Successful implementation of inclusive business models (IBMs) will spur more private investment, which will create greater income and job opportunities. Coordinated public and private investments in systematic, strategic VC development and quality production will strengthen the competitiveness of the whole agricultural sector and open up new opportunities for exports.

As for the identified **risks**, the external effect of consumer preferences and world price fluctuations (R14) could have a negative impact on exports from Ghana to the EU (R13) and on the incomes of supported producers (MI2). This risk affects the external side of vulnerability (exposure). As for the internal factors of vulnerability (coping capacities), a market orientation could also lead to a reduction in crop diversity in favour of cash crop production, which could lower smallholders' resilience in the face of natural disasters (e.g. extreme weather events, plagues and epidemics). Moreover, the following overall risk is documented within MOAP's results matrix: the value chain approach is heavily geared toward the market and there is a risk of insufficient integration, especially of marginalised smallholders.

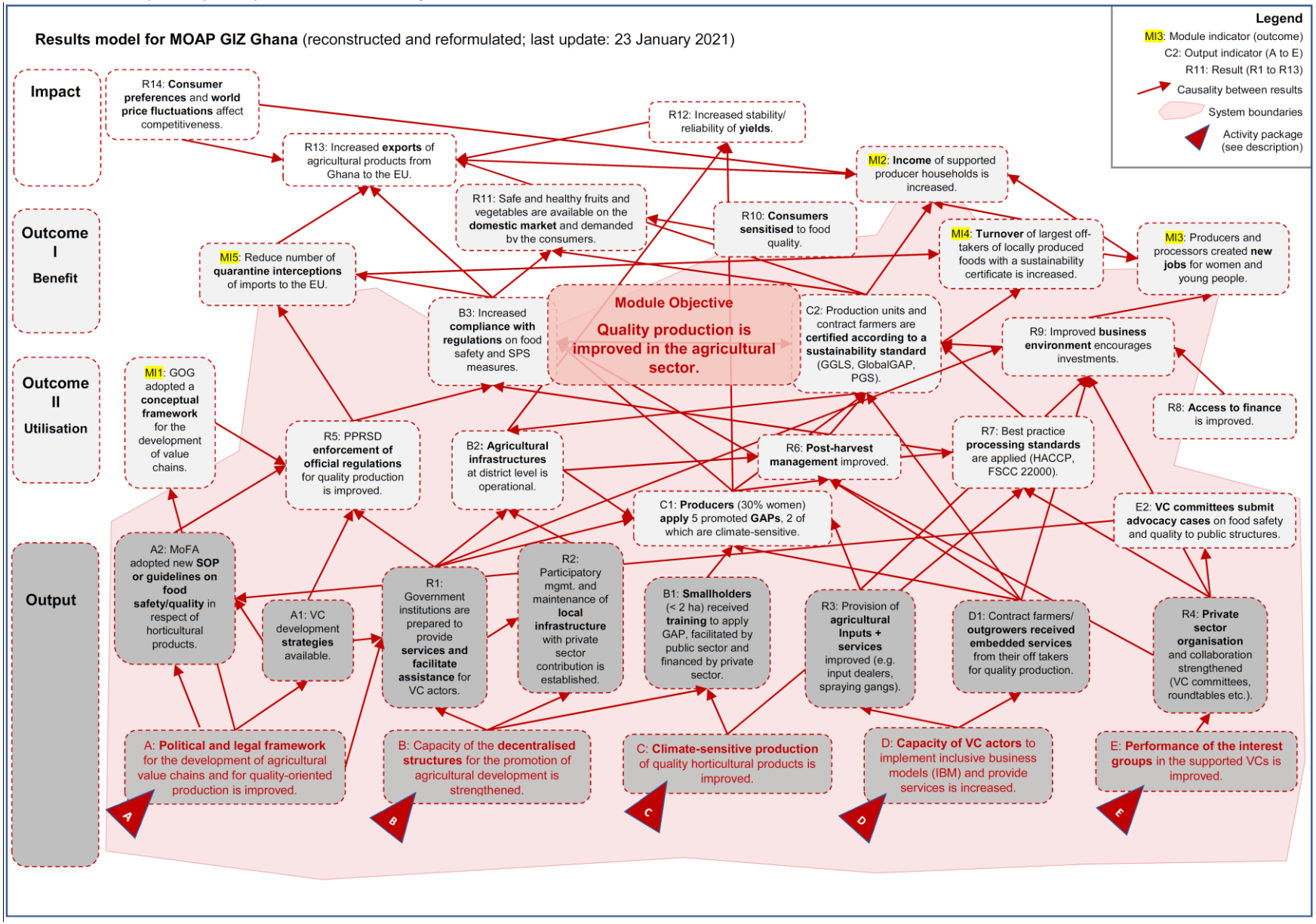
System boundaries

The system boundaries of the reconstructed results model were understood less as the project's sphere of responsibility than as its actual sphere of influence. For instance, frictions with the project partner at the highest level essentially led to MoFA's withdrawal from ownership and co-responsibility for the supposedly joint programme objectives and indicators. Hence, the fulfilment of indicator MI1 – the adoption of a strategic framework for value chain development – fell out of the project's sphere of influence.

Further **results that do not fall completely within the sphere of influence** are:

- MI5: A reduction in the number of quarantine interceptions of imports to the EU
- B3: Increased compliance with regulations on food safety and SPS measures
- R10: Domestic consumers sensitised to food quality
- MI4: Increased turnover for the largest off-takers of locally produced foods with a sustainability certificate
- MI3: New jobs for women and young people created by producers and processors
- MI2: Increased income for supported producer households

Figure 1: Current results model (January 2021), reconstructed during evaluation



3 Evaluability and evaluation process

This section aims to clarify the availability and quality of data and the evaluation process.

3.1 Evaluability: data availability and quality

This section covers the following aspects:

- availability of essential documents,
- monitoring and baseline data including partner data, and
- secondary data.

Availability of essential documents

Essential documents were largely available. The last progress report for 2020, including the first three months of 2021, was not yet prepared and thus could not be shared with the evaluation team. The project's results matrix, including indicator achievement from the last report or more recently, was not available as such. In some cases, therefore, the project's position with respect to indicator achievement remained unclear. Capacity WORKS instruments (e.g. the map of actors), the CD strategy and the steering structure, which had all been adopted from the previous phase, were outdated. No BMZ country strategy for Ghana existed.

Monitoring and baseline data including partner data

According to the M&E officer, the main monitoring tool was the results matrix. A specific Excel table was not used as an overall monitoring system, but individual Excel spreadsheets were used to document monitoring data for specific indicators. KOMPASS was not used as an observation tool. On the partner side, it appears that no consistent project monitoring was conducted; specific data on quality inspections (indicator B3) were requested from PPRSD but could not be provided. At MoFA's Policy Planning, Monitoring and Evaluation Directorate (PPMED), which steered the project on the partner side, it appears that no systematic project documentation was produced. Quarterly monitoring reports were prepared and shared with MoFA and discussed within steering committee meetings. The project did use GIZ's online Result Monitor tool (www.giz.de/wirkungsmonitor) to document progress toward or challenges with indicator achievement. **Baseline data** were not available for module indicator 2 (**MI2**) 'increased income for smallholders'. Initially, baseline values were established in the project proposal based on the Ghana Living Standards Survey round 6 (GLSS6) published in August 2014. However, the MOAP project team decided to reject the baseline because the figures were mean values for whole regions and did not reflect the rural situation. Moreover, the target values were criticised for not being realistically achievable and because agriculture is not the only source of income for most households. In addition, baseline values were missing for output indicators A2 'guidelines and SOPs on food safety of horticultural products', B2 'agricultural infrastructure', B3 'quality inspections at production level', C2 'certifications of farmers in accordance with sustainability standards', E1 'common interest group satisfaction' and E2 'advocacy cases submitted by value chain committees'.

Secondary data

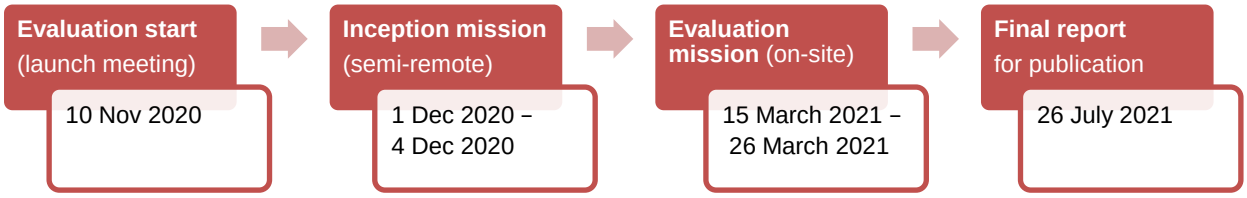
Secondary literature and data were primarily retrieved from the internet. Data quality varied. For example, production data (DCS, FAOSTAT) did not seem adequate because they were based on calculations instead of empirical methods. By contrast, the quality of data on trade volumes and values (GEPA, Eurostat) appears to be good since the two sources corroborate each other.

3.2 Evaluation process

This section covers the following aspects:

- milestones of the evaluation process,
- involvement of stakeholders,
- selection of interviewees,
- data analysis process,
- roles of international and local evaluators,
- (semi-)remote evaluation (if applicable), and
- context and conflict sensitivity within the evaluation process (if applicable).

Figure 2: Milestones of the evaluation process



Involvement of stakeholders

The stakeholders considered in the evaluation process were analysed based on project documents and the list of actors provided by the project. The evaluation team selected the stakeholders for their expected value as informants and to ensure a diversity of perspectives. The following categories were made:

- **Stakeholders involved in the delivery of the project's services**
  - **Active**: MoFA (PPMED, WIAD, PPRSD, DCS, regional offices, district staff), GIDA, MLGRD at district level
  - **Passive**: BMZ, MLGRD at national level
- **Stakeholders benefitting from the project's services**
  - **Directly involved**: producers, producer groups and FBOs, companies engaged in the agricultural sector (service providers, input dealers, transporters, processors, off-takers, distributors, exporters) and their associations, Ghana Green Label Secretariat
  - **Indirectly involved**: employees of newly created job opportunities
- **Other relevant stakeholders in the sector**
  - **In direct coordination/cooperation**: German DC (GIZ, KfW, PTB), HortiFresh, Import Promotion Desk (IPD)
- **Further sources of data and (external) perspectives**
  - **Data**: Ghana Export Promotion Authority (GEPA), DCS, FAOSTAT, Eurostat, IFPRI
  - **Expertise**: food safety expert

Selection of interviewees

Table 2: List of evaluation stakeholders and selected participants

Organisation/company/ target group	Overall number of persons involved in evaluation (including gender disaggregation)	No. of interview participants	No. of focus group participants	No. of workshop participants	No. of survey participants
Donors	2 (1f + 1m)	2	-	-	-
BMZ, EU					
GIZ	39 (14f + 25m)	6 (2f + 4m)	18 (8f + 10m)	-	15 (4f + 11m)
GIZ MOAP project team (some participated in several interviews/focus groups/surveys), former staff members, GIZ headquarters Germany (FMB), GIZ Competitive Cashew Programme					
Partner organisations (direct target group)	36 (8f + 28m)	6 (2f + 4m)	14 (4f + 10m)	-	16 (2f +14m)
• Ministry of Food and Agriculture (MoFA): Plant Protection and Regulatory Services Directorate (PPRSD), Directorate of Crop Services (DCS), Planning, Monitoring and Evaluation Division (PPMED), Women in Agricultural Development Directorate (WIAD), Ghana Irrigation Development Authority (GIDA) • Ministry of Local Government and Rural Development (MLGRD): District Department of Agriculture (DDA)					
Other stakeholders (e.g. public actors, other development projects)	11 (8f + 3m)	11	-	-	-
DC projects and initiatives: • KfW: Outgrower and Value Chain Fund (OVCF) • PTB: Strengthening of quality infrastructure for competitiveness of agricultural export products, Alliance for Product Quality in Africa • Import Promotion Desk (IPD) • External expert: food safety, VC development • Netherlands: HortiFresh • Alliance for Green Revolution in Africa (AGRA)					
Civil society and private sector actors	26 (8f + 18m)	11 (3f + 8m)	-	-	15 (5f + 10m)
• Interest groups and associations: Federation of Associations of Ghanaian Exporters (FAGE), Fruit Processing & Marketing Association of Ghana (FPMAG), Sea-freight Pineapple Exporters of Ghana (SPEG), Vegetable Producers and Exporters Association of Ghana (VEPEAG) • Companies: HPW, Maphlix Farm, Bomarts, Tropigha, NSF Certification, Control Union					
Final beneficiaries/indirect target groups (sum)	79 (11f + 68m)	-	79	-	-
Farmers and producer groups in Central (3), Eastern (1) and Volta (3) regions: citrus, pineapple, mango and vegetable farmers/FBOs (incl. 1 water user association)					
Note: f = female; m = male					

Data analysis process

Documentation and quality assurance of interviews

Notes were taken during interviews and then completed afterwards. For core interviews, evaluators compared notes. Quality was assured by comparing the parts of the report written by each evaluator; wherever discrepancies appeared, notes were compared and/or discussed. For participatory appraisal exercises with, for example, community members, visualised results complemented the documentation. Sources and methods were triangulated to validate interview responses.

Document analysis

Relevant content of documents was collated to the questions in the evaluation matrix. Differences were identified and analysed.

Standards and steps of qualitative data analysis

Content of data was analysed with reference to the questions in the evaluation matrix. Both the manifest and the latent meanings of interviews were identified and analysed. Working hypotheses were formulated and integrated into the evaluation process. Differing information and views were compared and analysed in terms of underlying interests and perspectives, e.g. project role, location, expected benefits (diversity of perspectives and cross-checking). New information led to an adjustment of questions in subsequent interviews.

Quality of data analysis was assured using the quality criteria for qualitative research:

- transparency, in terms of comprehensive traceability of the analytical steps (information-findings-interpretation-recommendation),
- intersubjectivity, which was implemented within the evaluation team; with interview partners when validating hypotheses; and last but not least with the MOAP project team, and
- replicability, meaning that results should be similar if the evaluation methodology were implemented by somebody else.

Tools and methods for qualitative data analysis

Methods of various kinds were used depending on the needs of the evaluation and the availability of data. To structure the analysis of qualitative data, the team coded evaluation areas (e.g. evaluation criteria) and specific topics and questions. No special software was applied.

Quantitative data analysis

Quantitative data were analysed in terms of frequency distribution. Any quantitative data from surveys were analysed using Excel tables for documentation. Analysis and visualisation were undertaken using descriptive statistics.

Standards and steps of quantitative data analysis

Quantitative data were assessed in terms of their reliability (how reliable is the information or data quality, e.g. with respect to the method of data collection) and their validity (how strong is the explanatory power of the data with respect to the knowledge to be generated or, for instance, the representation of an objective by an indicator). The data were collated following the questions in the evaluation matrix. Data from different sources were compared and any differences were identified and analysed.

Roles of international and local evaluators

The evaluation team was made up of two people: a local evaluator and an international evaluator.

The division of tasks responded to the roles and profiles of the evaluators. The local evaluator is familiar with the culture, context and socio-technical specifications of the situation on-site. His role included practical tasks such as communication and logistics as well as providing feedback, editing and input on methodological questions, working hypotheses and the selection of informants. The international evaluator was the team leader and therefore responsible for the delivery of the assigned tasks and products. The evaluation team acted together and discussed all key issues internally to create a common position and understanding. Intersubjectivity was practiced within the evaluation team and was already an aspect of research triangulation: interview observations and perspectives, discussions and field visits were shared, compared, complemented or corrected.

(Semi-)Remote evaluation

Owing to the ongoing Covid-19 pandemic, the evaluation was conducted semi-remotely. Prior to the evaluation mission, three online surveys were administered: for MOAP staff, for MoFA staff and for representatives of the private sector (mainly processors). The evaluation mission consisted of a seven-day field visit by the local evaluator to farmers, district administrations, processors, a water user association and PPRSD inspections at Kotoka International Airport (KIA). In addition to the onsite visits, virtual interviews and focus group discussions were conducted.

Photo 1: The local evaluator conducting a focus group discussion with farmers (Source: William Agyekum Acquah)

4 Assessment according to OECD/DAC criteria

4.1 Impact and sustainability of predecessor projects

This section analyses the impact and sustainability of the predecessor project(s) Market Oriented Agriculture Programme (PN: 2012.2105.0), which ran for three years from January 2014 through December 2016.

Since MOAP dates from 2004, the following modules have been implemented:

- Module 1: July 2004 through March 2008 (PN: 2003.2153.9)
- Module 2: April 2008 through December 2011 (PN: 2007.2180.3)
- Module 3: January 2012 through December 2013 (PN: 2011.2205.0)
- Module 4: January 2014 through December 2016 (PN: 2012.2105.0) >predecessor project
- Module 5: January 2017 through March 2021 (PN: 2015.2088.1) >evaluation object

Summarising assessment of predecessor project

The impact and sustainability of the predecessor project(s) were assessed as rather positive by the project evaluation in 2016. The main impacts ranged from an increase in yields and a reduction in post-harvest losses to a greater number of jobs along the promoted value chains, a rise in related export revenues and an increase in private investment in storage and processing infrastructure. These results were accomplished more generally through dissemination of the VCD approach and more particularly through the adoption of inclusive business models by the private sector, the establishment of cooperation mechanisms between VC actors, and the organisational development of partner organisations.
Critical issues were identified as follows: a relatively low number of smallholders benefitting from the project, the dependency of some value chain committees (VCCs) and service providers on MOAP, shortcomings in VCD policy formulation, the underfinancing of agricultural development at district level, and risks linked to climate change.

Analysis and assessment of predecessor project

The assessment of the predecessor project is divided into two dimensions (see table below):

- impacts and outcomes
- sustainability of positive changes.

Dimension 1: impact of predecessor project

The objective of German DC in the agricultural sector was: ‘The agricultural sector shows real growth in those regions and value chains supported by German DC. This real growth is sustainable and has a broad impact.’ According to the project evaluation in 2016, it is plausible that the predecessor module contributed to five of the eight indicators pertaining to the objective of the German DC programme: (i) an increase in yields (20%-200%) and a reduction in post-harvest losses; (ii) food security in its dimensions of availability, access and stability; (iii) a greater number of jobs (30,000 between 2008 and 2015) in production, processing and marketing in the promoted VCs; (iv) a rise in export revenues in the promoted value chains with export potential (pineapple, mango); and (v) private investment in storage structures for cereals in the Brong Ahafo region, and for vegetables and fruits. Moreover, it is stated that MOAP has achieved ‘impact at scale’ with respect to (a) the institutionalisation of the value chain approach; (b) the development of successful inclusive business models (IBMs) that are accepted and implemented by the private sector; (c) the establishment of cooperation mechanisms that ensure the widespread dissemination of key messages in the different subsectors; (d) the organisational development of partner organisations; and (e) the creation of attitudes and competencies within the sector to support future widespread developments (GIZ, 2016a).

According to MoFA, the VCD approach is functioning as part of Ghana's development agenda. The most prominent new and improved services within the supported VCs are certification services, mechanised weeding, soil testing, training in good agricultural practices, and pruning and spraying services. IBMs have improved the links between VC actors and created more trust and cooperation. Closer cooperation has been fostered between public-sector organisations at regional and district levels. MOAP has strengthened the cooperation between MoFA and MLGRD, and enhanced the ability of Regional Planning and Coordination Units to improve regional agricultural development planning. The capacities of monitoring and evaluation (M&E) and management information system (MIS) officers have been built up so that they can design and administer questionnaires that capture data for effective reporting on interventions. VCCs at regional and national levels[2] and the Agricultural Public-Private Dialogue Forum at the Private Enterprise Federation have improved vertical integration and cooperation among all VC actors (Kwarteng, 2016; GIZ, 2016a).

Interestingly, some extension videos produced by MOAP and available on YouTube have been viewed several hundreds of thousands of times, in particular the ones on mango pruning and harvesting, while others have been clicked on only a few hundred or thousand times.[3]

Even though the VCD approach had become rather well-known throughout Ghana and was mentioned within the METASIP II (2014-2017) initiative, little progress was observable with respect to a strategic policy framework. Another structural bottleneck was identified in the underfinancing of agricultural development owing to insufficient resource endowment and institutional change processes. While the project established the prerequisites for future broad impact in a wide range of activities, however, the number of farmers who directly benefitted from project activities was considered low (GIZ 2016a: 38).

According to Kwarteng, 2,000 certificates were issued by Fairtrade and 989 were issued in compliance with the GLOBALG.A.P. standard. In addition, 11 fruit processing companies were licensed by the US Food and Drug Administration (FDA) (2016: 63).

Clearly, the described long-term effects are the result not only of the predecessor module but of MOAP's efforts since 2004. Moreover, other donors and actors have contributed to and complemented the VCD approach (MoFA, 2012: 24).

Dimension 2: sustainability of predecessor project's outcomes

The outcomes of the predecessor project and its module indicators can be summarised as follows:

- 1: Business models are applied to provide market access to smallholders.
- 2: Stakeholders have increased their investments.
- 3: Smallholder households have increased their income.
- 4: Smallholders have diversified their diet (vegetable, starch products, fruits and protein sources).

There were some noticeable differences of opinion between the project evaluation (April 2016) and the final report (March 2017) with regard to the achieved effectiveness: the evaluation was more critical and gave only a 'rather successful' overall assessment, whereas the final report stated that the mean module indicator achievement was 90% (GIZ, 2016a: 24-32, 2017: 3 f.).

The first indicator laid the foundation for higher productivity, increased product quality and greater income for smallholders (indicator 3) through contract-farming arrangements and embedded services (e.g. training and inputs). With access to (export) markets and a more stable supply of quality products, both processors and exporters increased their investments, for example in storage and packaging facilities. With respect to

[2] By the end of 2016 a total of six value chain committees were reported: two in Central region (citrus and pineapple), two in Brong Ahafo region (maize and mango), one in Volta region (fruits and vegetables) and one at national level (National Mango Roundtable coordinated by FAGE (GIZ, 2017a: 8).
[3] See the jfp film canal: https://www.youtube.com/channel/UC4CmYIE52iM_BFrU_Vt4CdO (accessed in April 2021).

indicator 4, the final evaluation comes to a rather sceptical conclusion: ‘As MOAP is investing very little effort to change consumption patterns, a significant change cannot be expected by or attributed to the project’ (GIZ, 2016a: 20).

The final evaluation of the predecessor project reached a number of rather positive conclusions in relation to sustainability:

- The VCD approach was anchored within development policies and strategies.
- The capacities at individual level, as well as the training content and material integrated into university curricula, are factors to sustain the project’s results.
- The improved quality of infrastructure (a field in which GIZ cooperated with PTB), especially with regard to conformity assessment (e.g. the accredited testing laboratories of Ghana Standards Authority and the accredited certification body SMART-CERT), is a major step toward fostering quality production.
- Some business models and viable service solutions have already been adopted by VC actors.

Identified as threats to sustainability were the dependency of some VCCs and service providers on MOAP, the underfinancing of agricultural development at district level and the risks linked to climate change (GIZ, 2016a: 42–45).

Methodology for assessing predecessor project

Since it proved difficult to interview informants who could share their knowledge of the initial MOAP modules, the retrospective view of predecessor projects focuses on the most recent one.

Table 3: Methodology for predecessor project

Assessment dimension: predecessor project	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Impact of the predecessor project	Contribution to German DC programme indicators: Results are described in reports and can be named by stakeholders; comparison of former and current approaches	**Evaluation design:** No specific design **Empirical methods:** • Analysis of project documents including an impact study (February 2016) and a project evaluation (April 2016) • Analysis of official statistical data • Expert interviews	Access to and quality of official data posed a challenge. Collection of additional data through interviews and focus groups posed challenges owing to non-availability of former MOAP staff and MoFA officials, especially at national level. Attribution was a challenge given the many actors in the sector.
Sustainability of the predecessor project	The objective of the TC module was: ‘Together with the private sector, MoFA promotes income-generating business models for competitive agricultural value chains.’ Five outputs were defined: (1) policy advice, (2) expansion of economically viable service systems, (3) promotion of inclusive business models, (4) capacity building for regional agricultural development and (5) development of value chain committees and a national dialogue platform.	**Evaluation design:** No specific design **Empirical methods:** • Analysis of project documents including a project evaluation (April 2016) • Analysis of official statistical data	Basis for evaluation is not very accurate or consistent. For example, project documentation sometimes refers to generic activities instead of concrete results. Final project report deviates from final evaluation.

4.2 Relevance

This section analyses and assesses the relevance of the Market Oriented Agriculture Programme project (PN 2015.2088.1, only BMZ-funded MOAP South), which ran from January 2017 through March 2021.

Summarising assessment and rating of relevance

Table 4. Rating of OECD/DAC criterion: relevance

Criterion	Assessment dimension	Score and rating
Relevance	Alignment with policies and priorities	28 out of 30 points
	Alignment with the needs and capacities of the beneficiaries and stakeholders	25 out of 30 points
	Appropriateness of the design	10 out of 20 points
	Adaptability – response to change	10 out of 20 points
Relevance total score and rating		Score: **73 out of 100 points** Rating: **Level 3: moderately successful**

The project's objectives were particularly aligned to the policies and priorities of the donor community and the needs of the private sector, namely producers, processors and distributors. Moreover, the prominent VCD approach is reflected in the government's sector policies and the project has addressed identified constraints. The project's alignment with the needs and capacities of market-oriented actors is high, but it is rather low when it comes to vulnerable groups or specific target groups established by the project's design, such as women and young adults. This is a direct – and understandable – consequence of a market focus that favours business-oriented producers over poor smallholders, because the former are the drivers of economic growth. Positive effects are expected to trickle down to the general population through the creation of job opportunities. The social and environmental dimensions of sustainable development are mentioned in the project's proposal, but are not considered equal to the economic dimension. The project's design (components and indicators) has not been very helpful to achieve the objectives. Indeed, it has complicated implementation, monitoring and evaluation. Moreover, it has not been adapted in the course of several change offers submitted to BMZ.

In total, the relevance of the project is rated as Level 3: moderately successful, with 73 out of 100 points.

Analysis and assessment of relevance

The analysis and assessment of the criterion is guided by the evaluation questions for the specific assessment dimension.

Relevance dimension 1: Alignment with policies and priorities

To what extent are the intervention's objectives aligned with the (global, regional and country-specific) policies and priorities of BMZ, the beneficiaries and stakeholders, and other (development) partners? To what extent do they take account of the relevant political and institutional environment?

MOAP's module indicators clearly show a contribution to the achievement of SDG 8 'promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. The project's objectives are aimed in particular at targets 8.1 'sustain per capita economic growth', 8.2 'achieve higher levels of economic productivity', 8.3 'promote development-oriented policies', 8.5 'employment and

decent work for all women and men', 8.6 'reduce the proportion of youth not in employment, education or training' and 8.8 'protect labour rights and promote safe and secure working environments'.[4]

In the absence of an active BMZ country strategy for Ghana, strategic reference can be drawn from the so-called 'Marshall Plan with Africa'. In the case of agriculture, the plan sets out a need for technical innovation (e.g. better seeds, storage and processing technology), organisational innovations (e.g. strengthening producer groups and farmers organisations) and systemic innovations (e.g. establishing business models and marketing and sales structures). Specific reference is made to helping smallholder farmers by providing easy access to agricultural financial services (e.g. loans for agricultural inputs and insurance), expanding infrastructure, and undertaking a reform of land rights, the latter being of key importance to ensure fair participation in the growth of added value (BMZ, 2017: 25).

At the time the project was prepared, the Ghana Shared Growth and Development Agenda II (GSGDA II) was still in effect (2014–2017). With respect to specific medium-term interventions, 'the development of the three selected cash crops (cocoa, oil palm, cotton) and horticultural products for export and processing, as well as food crops (rice and maize) to ensure food security' were mentioned (GoG, 2015: 19). In addition, METASIP II (2014–2017) specified the Ghanaian Government's main objectives and approach toward agricultural development over the same period. Accelerated economic growth and job creation through added value was intended to be achieved through 'greater involvement of the private sector is envisaged for the transformation of the sector and improvement in service delivery to smallholder farmers, as well as increased investment and management of the sector as a whole. Various types of linkages are outlined to be established between smallholders and agribusiness, to facilitate access to input, research, technology and product markets, as well as other essential services' (MoFA, 2015: IX). The value chain approach was to be deepened, specific staple and horticultural crops developed, the approaches of nucleus farmer-outgrowers and agricultural clusters promoted, and complementary schemes to support VCD agreed between the public and private sectors (MoFA, 2015: 32–34).

The most specific references to MOAP's relevance within official government policies can be found in MoFA's Tree Crops Policy, which sets out detailed information on how the VCD approach should be implemented in the tree crops sector (including mango and citrus). Examples include the vertical integration of VC actors through VC committees from local to national level, improved traceability and product quality for export in line with standards (GLOBALG.A.P., Fairtrade, organic), and pertinent certification (MoFA, 2012: 43 f.).

The positive alignment with existing strategy frameworks corresponds with the information obtained from the self-assessment by MOAP project staff: on a scale from '0 = do not agree at all' to '10 = fully agree', the MOAP's alignment with global priorities and donor policies was rated at a mean value of 8.8 and the alignment with Ghana's political priorities was rated as 7.9 (Survey 1).

With regard to the implementation of agricultural projects, however, the modes of delivery were not aligned between the Government of Ghana (GoG) and donor projects: while MoFA's approach was more of a 'production-push' strategy with a strong emphasis on subsidised agricultural inputs, the development partners (DPs) mainly opted for a 'market-pull' approach that focused on competitiveness and private investment (Int_8, 9 with other stakeholder). This has led to partner complaints that the project did not contribute to the Planting for Export and Rural Development (PERD) module, one of five modules within MoFA's Planting for Food and Jobs (PFJ) flagship programme that are aligned with MoFA's mode of delivery (Int_2 with partner).

Relevance dimension 1 – Alignment with policies and priorities – scores **28 out of 30 points.**

[4] [online] https://sdgs.un.org/goals [9 April 2021]

Relevance dimension 2: Alignment with the needs and capacities of the beneficiaries and stakeholders

The political partner and the implementing partners are also the **direct target group** of MOAP because they are important intermediaries for reaching out to the **final beneficiaries**: smallholders and rural population in agricultural processing and trade, with a special focus on women and young adults (GIZ, 2016b: 17).

To what extent are the intervention's objectives aligned with the development needs and capacities of the beneficiaries and stakeholders involved (individuals, groups and organisations)?

The self-assessment by MOAP project staff with respect to alignment with the needs of the target groups was rated at a mean value of 8.1 on a 10-point scale (where 0 = 'do not agree at all' and 10 = 'fully agree') (Survey 1).
The self-assessment particularly coincides on farmers' needs for support in market access, pest and disease management, increased productivity and more stable buyer relationships that are required for enhanced quality (Foc_dis_1, 3, 4, 5, 6, 7 with farmers). These needs are prerequisites for the achievement of module indicator 2 'increased income for farmers'.

The specific needs of processors, off-takers and traders (domestic and export) were addressed in the sense of improving the supply base for quality produce, enhancing processing techniques and facilities, and supporting liaison with buyers (market access) (Int_1, 4, 5 with private sector). The addressed needs are mirrored in the module indicator 4 'increased turnover for major off-takers'.

MoFA as the project's political partner was helped to lift the EU's export ban on selected vegetables and to improve its services with regard to VC facilitation, especially at the decentralised level (Int_2, 6, 8, 10 with partner). The first improvement is referred to in module indicator 5 'reduction of interceptions into the EU'.

To what extent are the intervention's objectives geared to the needs and capacities of particularly disadvantaged and vulnerable beneficiaries and stakeholders (individuals, groups and organisations)? With respect to groups, can any differentiation be made by age, income, gender, ethnicity, etc.?

Regarding a pro-poor approach, MoFA states that 'studies have shown that the beneficiaries of TC [tree crop] support are not usually "poor" farmers. Most of the proposed activities and policies in the rural development sector largely impact "middle-class" farmers. Reaching the poorest is often much more complicated and requires specific support' (MoFA 2012: 62). Additional informants confirmed that the main target groups in the case of producers were business-oriented farmers who want to increase the quality of their products to meet market requirements (Int_3, 4 with GIZ, survey 1).

The original project proposal and indicators often refer to women and young adults as specific MOAP target groups (GIZ, 2016b). Two gender studies conducted by external consultants were made available to the evaluation team, both in draft form. The first was completed in early 2016 by the predecessor project, while the second dates from September 2017. It is unknown whether or how aspects and recommendations of the studies were translated into project activities. The more recent draft study did not complete the last section on conclusions and recommendations, which was to be prepared after input from MOAP and staff of GIZ's global project 'Green Innovation Centres' (GIZ, 2016c; GIZ 2017b). No references were found to any measures that were specifically targeted at women and young adults.

In general, within the citrus, pineapple and mango VCs, it is predominantly elderly men who are engaged in production. Women are more highly represented within vegetable production and aggregation, sales and processing (Foc_Dis_1–7 with farmers). With regard to women's representation as members of farmer-based

organisations (FBOs), all of the selected intervention regions, with the exception of Volta, show shares considerably below the national average of 42.4% female members in FBOs.[5]

In conclusion, the project followed a market-driven approach with a focus on VC actors that have a certain potential and attitude. Highly vulnerable groups were not directly targeted, but rather were expected to benefit through the trickle-down effects of economic growth as stated in module indicator 3 'additional jobs created'.

Relevance dimension 2 – Alignment with the needs and capacities of the beneficiaries and stakeholders – scores **25 out of 30 points.**

Relevance dimension 3: Appropriateness of the design

To what extent is the intervention's design appropriate and realistic?

The project's design, which has five outputs for its main working areas, was adopted from the predecessor module without any major changes. The module indicator on the increase in smallholders' income has also been adopted. However, the latter indicator posed two problems: (1) was it achievable? and (2) could it be monitored? (Foc_Dis_4 with GIZ). Upon arrival of the new MOAP project team in early 2018, team members had difficulties understanding the project design and they had to clarify some aspects and indicators with staff from GIZ headquarters who had been involved in the project appraisal. There was a strict division of tasks between the outputs implemented by GIZ (A and B dealing with the public sector) and the outputs that were the responsibility of the subcontracted consulting team (C, D and E focusing on the private sector). Despite regular coordination between GIZ and the consulting team, the split had negative consequences on team building within the project and on the joint delivery of services to stakeholders (Int_4 with GIZ).

According to MOAP's self-assessment, the project design's appropriateness was rated at a mean score of 6.4 on a 10-point scale; the standard deviation of 2.4 shows considerable heterogeneity within the respondents' ratings (from 1 to 9) (Survey 1).

From a technical viewpoint, the intervention's design reflects a balancing act between a private sector-driven VCD approach, which also tried to include smallholders, and the public sector, despite the implementation challenges that this posed. With regard to the organisational dimension, the arrangement of outputs into public dimensions (A and B) and private dimensions (C, D and E) as well as centralised dimensions (A and E) and decentralised dimensions (B, C and D) posed certain challenges as noted above. With respect to the financial aspects, it can be said that the three outputs implemented by the subcontracted consultants benefitted from a less bureaucratic and therefore more flexible use of instruments like 'local subsidies' (Int_3 with GIZ).

To what extent is the intervention's design sufficiently precise and plausible?

From the evaluation team's perspective, it was remarkably difficult to reconstruct the project's results model on the basis of the intervention's design. Moreover, several indicators were unclear owing to the scope for interpretation and the challenges of monitoring.[6] The VCD approach, which was clearly the main strategy behind MOAP's intervention, was not clearly mirrored in the proposal. The selection of the core problem – 'overall, quality production within the agricultural sector is low', which was translated into the module's main

[5] www.fbosecretariatghana.com/?q=content/fbosghana2017-2018-0 [17 April 2021]

[6] This was the case with module indicator MI2 'increased incomes for farmers', where a baseline was not available; MI3 'created jobs at 10 largest producers and processors', which did not consider jobs and employment created at the level of small and micro enterprises; and MI4 'increased turnover for the 3 largest off-takers', which referred only to the domestic market (not explicitly mentioned in the indicator). Moreover, some indicators at output level were not comprehensive, such as B2 'operational agricultural infrastructure', where the baseline of 43 is not documented and it is unclear to which infrastructure this number refers, apart from a few irrigation schemes and a dozen private storage facilities; B3 'conformity with quality inspections', where no data are available on quality inspections by PPRSD; C2 'additional farmers certified', where it is not defined what 'additional' means and recertifications are also counted; and D2 and E1, which had very low satisfaction rates of 65% without proper baselines on which to ground the target rates.

objective ‘to improve quality production in the agricultural sector’ – appears rather random and self-contained. In addition, the indicators pointing to improved quality in the sector were set at output level (B3 ‘compliance with regulations’ and C2 ‘production units certified in accordance with sustainability standards’), whereas the module indicators mainly reflected the positive effects of increased quality on the economy. Therefore, the main objective represented by the indicators should have been more along the lines of improving the competitiveness and productivity of selected VCs, while improved quality management throughout the VCs should have been one of the main aspects of the strategy.

To what extent is the intervention’s design based on a holistic approach to sustainable development?

Again, the focus of the economic dimension was on a market-oriented approach. If ‘the market’ sets the rules for the game called ‘competitiveness’ and jobs and income generation are the ultimate goals, it is inevitable that the social and economic dimensions will be secondary. MOAP tried to incorporate the latter dimensions, for example through GAP training that included not only more sustainable farming but also natural resource management and through the facilitation of so-called inclusive business models. Certification in accordance with sustainability standards was also assumed to create positive social and environmental effects (Foc_Dis_3 with GIZ). However, these effects were not directly targeted through indicators or monitored by the project.

Relevance dimension 3 – Appropriateness of the design – scores **10 out of 20 points.**

Relevance dimension 4: Adaptability – response to change

To what extent has the intervention responded to changes in the environment over time?

The first change offer was requested in early 2017 as a consequence of expansion into Ghana’s North-West as a part of the scope of EU co-financing. For MOAP South, this did not result in any changes. Also, the project’s strategy and approach were simply translated to the new intervention areas and the indicators were only modified quantitatively (GIZ, 2017c).

The second change offer was submitted on 4 December 2019. It proposed a one-year extension, an extra budget of EUR 2,500,000 and a quantitative increase in some indicators. The justification for the change offer states that since an implementation agreement had not been signed between GIZ and MoFA, another final MOAP module could not take place as originally planned. Therefore, the current module was extended and replenished financially to ensure sustainability after its conclusion in December 2020 by anchoring the results within the partners’ systems (GIZ, 2019a).

The third change offer was submitted to BMZ in October 2020. It entailed only a three-month extension with no additional costs involved. This extension, which ran to the end of March 2021, was intended to be used to transfer the EU co-financed component in the North-West to the new GIZ ‘AgriBiz’ module (GIZ, 2020b).

Therefore, none of the three official changes addressed any changes within the environment or involved any adaptations of the intervention’s design. Rather they reacted to internal needs: EU co-financing and the end of the planned project duration.

The self-assessment by MOAP project staff rated the adaptation of the project design in accordance with requirements at a mean score of 6.1 on a 10-point scale, while the standard deviation of 1.9 shows considerable heterogeneity within the respondents’ ratings (from 3 to 9) (Survey 1).

Relevance dimension 4 – Adaptability – response to change – scores **10 out of 20 points.**

Methodology for assessing relevance

Table 5: Methodology for assessing OECD/DAC criterion: relevance

Relevance: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Alignment with policies and priorities	MOAP objectives and strategies are mirrored within the available documents and strategies of BMZ, GoG and partner (MoFA).	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews	No BMZ strategy for Ghana exists.
Alignment with the needs and capacities of the beneficiaries and stakeholders	Stakeholders and target groups confirm importance/priority of improving quality in agriculture as well as the usefulness of activities they participated in.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); to some extent, contribution analysis is applied. **Empirical methods:** • Document analysis • Interviews	M&E documentation for outcome indicator 2 (income generation) is weak; primary data collection of changes in income is a challenge in terms of methodology and resources.
Appropriateness of the design*	Review of the project's intervention design (results model and matrix) indicates functionality in terms of technical, organisational and financial aspects.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews	Limitation: assessment is partially subjective (e.g. interpretation of terms such as 'appropriate', 'realistic', 'precise', 'plausible').
Adaptability – response to change	Adaptations made in response to changes in the environment are documented by reports, change offers and M&E documentation, and indicated in interviews.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews	Limitation: the phrase 'changes in the environment' is very broad. Its analysis can only be an approximation.

* The project design encompasses the project's objective and its theory of change (GIZ results model, graphic illustration and narrative results hypotheses), including outputs, activities, instruments, results hypotheses and implementation strategy (e.g. methodological approach, capacity development strategy, results hypotheses).

4.3 Coherence

This section analyses and assesses the project's coherence. It is structured according to the assessment dimensions in the GIZ project **evaluation matrix** (see annex).

Summarising assessment and rating of coherence

Table 6. Rating of OECD/DAC criterion: coherence

Criterion	Assessment dimension	Score and rating
Coherence	Internal coherence	40 out of 50 points
	External coherence	30 out of 50 points
Overall score and rating		Score: **70 out of 100 points** Rating: **Level 3: moderately successful**

The internal coherence of MOAP can be assessed as rather positive. Complementary interventions have been designed and implemented together with other GIZ programmes (GIC, ComCashew, Alliance for Product Quality in Africa), with KfW (Outgrower and Value Chain Fund) and with PTB (quality infrastructure for agricultural exports). The synergies between technical (GIZ) and financial (KfW) cooperation could have been greater if the VCs supported by MOAP had been able to absorb higher volumes of credit to access the OVCF. As for the Marshall Plan principle of partnership between equals, it could be observed that in practice challenges arise and this principle was not always considered in implementing the project.

With regard to external coherence, there has been general coordination among DPs through the Agricultural Sector Working Group (ASWG). In addition, selected technical cooperation took place where interests coincided and expertise could be complemented. At the political level it remains unclear whether coordination among DPs took place. Existing structures have been used where they supported the implementation of the VCD approach. However, systematic cooperation management based on Capacity WORKS success factors and methods, including a common system for M&E and learning together with the partner institution, was not applied.

In total, the coherence of the project is rated as Level 3: moderately successful, with 70 out of 100 points.

Analysis and assessment of coherence

The analysis and assessment of the criterion is guided by the evaluation questions for the specific assessment dimension.

Coherence dimension 1: Internal coherence

Within German DC, to what extent is the intervention designed and implemented (in a sector, country, region or globally) in a complementary manner, based on the division of tasks?

According to the project proposal, MOAP was designed in close cooperation with GIZ's global project 'Green Innovation Centres' (GIC), the regional project ComCashew, KfW's 'Outgrower and Value Chain Fund' (OVCF) and PTB's 'Quality infrastructure for competitiveness of agricultural export products' (GIZ, 2016b: 4, 14).

The planned complementarity and coordination were realised throughout the project's implementation and have been confirmed by different sources. While MOAP focused on VCD for fruits and vegetables, the other

GIZ projects focused on maize and rice (GIC) or cashew (ComCashew), while KfW provided long-term financial support for farmer groups and PTB focused on standardisation, metrological traceability and improved conformity assessment (mycotoxins, microbiology and pesticide residues) (PTB, 2016: 6). There was also additional coordination with the 'Alliance for Product Quality in Africa', which was implemented by GIZ and PTB in the context of BMZ's Special Initiative on Training and Job Creation (SI Jobs) and the Import Promotion Desk (IPD) (Int_1, 2, 3, 5, 8 with other stakeholder; Int_1 with GIZ).

MOAP project staff rated 'complementary design and implementation within German DC' at 8.3 on a 10-point scale (Survey 1).

To what extent are the instruments of German DC (technical and financial cooperation) meaningfully interlinked within the intervention (in terms of both design and implementation)? Are synergies leveraged?

MOAP actively supported the design and implementation stages for long-term financial services to organised farmers within KfW's OVCF. However, OVCF operated mainly for the VCs in rubber, oil palm, cereals, rice, sorghum and pineapple and the volumes of credit offered by KfW usually ranged between EUR 1 and 6 million (Int_8 with other stakeholder). These volumes are very high to be handled by FBOs in the fruit and vegetable sector.

Only pineapple is a VC supported by MOAP South, so the synergies are expected to be moderate. Access to finance, especially to long-term credit, still remains a major constraint for producers who need to invest for greater market orientation and competitiveness but are discouraged by annual interest rates of between 24% and 41% (Int_8 with other stakeholder; IFPRI, 2020: 11).

To what extent is the intervention consistent with international and national norms and standards to which German DC is committed (e.g. human rights)?

In general, consistency with international and national norms can be assumed. At the political level, however, there was a dispute between MOAP and its partner MoFA over the project's internal decision-making and staffing. The partner was irritated by recruitment decisions, especially the subcontracting of certain project components to a private consultancy undertaken at GIZ's headquarters in Eschborn. The partner, who perceived that these decisions were not in line with Ghanaian laws and procedures, found them opaque and patronising. This led to discontent, which ultimately contributed to non-signing of the project's implementation agreement between the partners (Int_2 with partner, Int_8 with other stakeholder). In the 'Marshall Plan with Africa', it is stated that 'African ownership must be strengthened and the days of "aid" and of "donors and recipients" put behind us. The EU and its member states want to engage in a partnership between equals' (BMZ, 2017: 4).

The question is whether and how German DC is able to adapt to a situation in which African governments become increasingly self-confident and demand to be involved in decision-making (Int_1 with GIZ, Int_8 with other stakeholder). The issue involves aspects not only of technical coordination and complementarity but also of political coherence and credibility.

Coherence dimension 1 – Internal coherence – scores **40 out of 50 points**.

Coherence dimension 2: External coherence

To what extent does the intervention complement and support the partner's own efforts?

Within MOAP's quarterly monitoring reports to MoFA, the project's contributions to the government's flagship programmes are set out in their own section (GIZ, 2020c). This shows that the project made some effort to align itself to new government policies from 2017 onwards. However, the project did not support the partner's priority to achieve import substitution of staple foods (see section 4.2).

The project's technical approach differed from MoFA's approach, e.g. when it came to competency-based training or private-sector orientation. As a result, the question of external coherence depends on how their difference in approach is evaluated: it could be seen as complementary and enriching or as not aligned and disruptive. The evaluation team believes that the intervention complemented the partner's efforts and set an example for a less subsidy-driven approach and more active engagement of the private sector.

To what extent has the intervention's design and implementation been coordinated with other donors' activities?

The Agricultural Sector Working Group (ASWG) is a policy dialogue platform to engage GoG and DPs. According to informants, it is an active forum for sector-wide dialogue and coordination (Int_8 with other stakeholder). MOAP has actively taken part in regular sessions to exchange information with other donors in the sector (GIZ, 2020a: 9).
MOAP collaborated with the Centre for Agriculture and Bioscience International (CABI) on plant health clinics for crop pest and disease management; with the Dutch programme HortiFresh to promote the Ghana Green Label (GGL) standard; and with the International Federation of Organic Agriculture Movements (IFOAM) to help introduce a participatory guarantee system (PGS) as an alternative and complementary tool to third-party certification within the organic sector (Foc_Dis_2 with GIZ, Int_7 with partner, Int_9 with other stakeholder).

However, coordination with other external donors was rather more limited than cooperation with German DC projects. No systematic cooperation management using Capacity WORKS during the implementation could be observed.

The results from the MOAP self-assessment show a rather self-critical assessment: the mean rating of the statement 'the project was designed and implemented in coordination with other donor activities in the sector' was 6.8 on a 10-point scale (Survey 1).

With respect to the policy advice field, there was not very much donor coordination or the evaluation team failed to detect it. While a variety of actors (USAID, Canada, IFPRI, MOAP) have been involved in advising MoFA on its agricultural policies and strategies, MOAP did not succeed in collaborating with MoFA at that level. Nevertheless, a new agricultural policy has been formulated in the meantime and is expected to be adopted soon (Int_8 with other stakeholder).

To what extent has the intervention been designed to use existing systems and structures to implement its activities? To what extent are these systems and structures used?

As mentioned above, ASWG was used for donor coordination. Also, CABI's Plantwise programme and IFOAM's PGS approach, which are both systems with an international scope, were used during implementation.

In the absence of proper stakeholder analysis or a process landscape (tools from GIZ's Capacity WORKS for cooperation management), it is difficult to tell whether existing systems and structures were analysed and

selected to be strengthened within the project appraisal mission. Therefore, it is not clear which structures do or do not exist. One example concerns the data collection and monitoring of relevant information at MoFA, such as inspections conducted by PPRSD and their respective findings. With respect to the public partner, the project did use existing structures and systems of agricultural service delivery, particularly at the decentralised level, namely the Regional and District Departments of Agriculture and their AEAs (Foc_Dis_2 with GIZ, Int_5 with GIZ). With the main focus on private-sector engagement, MOAP followed up on structures and institutions established by past modules, such as regional VCCs, FAGE (and other associations) as the coordinating mechanism for exporters at national level, and the Ghana Green Label Secretariat as a voluntary food safety standard and marketing tool for the domestic market. In conclusion, MOAP used existing systems and structures where they were useful to implement the VCD approach.

To what extent are common systems used for M&E, learning and accountability?

The only shared system used by MOAP were the quarterly progress reports submitted to MoFA to render an account of the project's activities and achievements. However, the system cannot be called 'common' because the reports were prepared by MOAP's M&E officers. MoFA at national level did not contribute or participate, but was only a recipient. Decentralised MoFA units contributed by providing documentation on participants in training. According to the self-assessment, MOAP staff rated the statement 'the partner participated actively in project steering and implementation' at a mean value of 5.8 on a 10-point scale. A high standard deviation of 2.3 is due to individual ratings ranging from 1 to 10 (Survey 1).

Coherence dimension 2 – External coherence – scores **30 out of 50 points.**

Methodology for assessing coherence

Table 7: Methodology for assessing OECD/DAC criterion: coherence

Coherence: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Internal coherence	Extent to which MOAP's design and implementation reflect complementarity and division of tasks within German DC (GIZ, KfW, PTB). Extent to which the interlinkage of GIZ and KfW instruments created synergies. Extent to which the intervention was consistent with international and national norms and standards to which German DC is committed.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews	Consistency with international standards and norms is difficult to assess since they are sometimes formulated in a 'soft' manner and thus subject to interpretation.
External coherence	Extent to which MOAP complemented and supported the partner's own efforts. Extent of MOAP's coordination with other donors in the sector. Extent to which MOAP used existing systems and structures and coordinated with other donors to create synergies. Extent to which common systems of M&E, learning and accountability were used together with partners and other donors.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see annex); no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews	There are a large number of donors active in Ghana, especially in the agricultural sector. Limitations do exist in terms of identifying all potential synergies between different donors and programmes.

4.4 Effectiveness

This section analyses and assesses the project's effectiveness. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see annex).

Summarising assessment and rating of effectiveness

Table 8. Rating of OECD/DAC criterion: effectiveness

Criterion	Assessment dimension	Score and rating
Effectiveness	Achievement of the (intended) objectives	18 out of 30 points
	Contribution to achievement of objectives	21 out of 30 points
	Quality of implementation	14 out of 20 points
	Unintended results	14 out of 20 points
Overall score and rating		Score: **67 out of 100 points** Rating: **Level 3: moderately successful**

Of the five module indicators, two were fully achieved (MI3 'jobs created' and MI5 'EU interceptions reduced'), two were partially achieved (MI2 'increased income for smallholders' and MI4 'increased turnover for domestic certified sales') and one was not achieved (MI1 'VCD framework adopted').

The contribution analysis on the achievement of objectives concluded that project outputs have contributed to a reduction in EU interceptions related to harmful organisms as a consequence of enhanced quality control at border exit points (hypothesis 1). However, PPRSD was not able to establish systematic enforcement of SPS measures at the decentralised level. Inspections are neither area-wide nor documented, while traceability is only ensured for certain products and selected producers. Hypothesis 2 analysed the underlying assumptions to improve the operability of agricultural infrastructure through joint management by public and private stakeholders. However, joint management could be observed only in irrigation schemes, where the responsibility for operation and maintenance has been transferred to water user associations (WUAs), but with very limited results in terms of operability. Hypothesis 3 started from the assumption that (certified) quality production would increase through the promotion of inclusive business models, improved services for agricultural production, and training in GAPs and GMPs. This assumption could be confirmed in principle, but attention needs to be drawn to the output ratio since the overall figure of 1,867 certified famers needs to be scrutinised. Efforts to achieve improved public-private dialogue in the agricultural sector (hypothesis 4) have led to a more dynamic, proactive private sector, but the public sector is still too reactive and not able to respond to private-sector demands.

The quality of the technical implementation, especially at the decentralised level, was regarded as high. However, strategic steering based on a clearly organised monitoring system, using tools for systematic cooperation management, could not be confirmed. Moreover, the political partner did not participate actively in project monitoring and steering. Learning and knowledge management fell short, as did the exit strategy.

The de facto withdrawal of the partner at the political level was considered a negative unintended result that not only affected project implementation but also posed a potential risk for future cooperation since the issue remains unsettled.

In total, the effectiveness of the project is rated Level 3: moderately successful, with 67 out of 100 points.

Analysis and assessment of effectiveness

Effectiveness dimension 1: Achievement of the (intended) objectives

Indicator MI1 on the adoption of a strategic framework for VCD could not be achieved. Since last year, however, MoFA has shown interest in such a framework and has set up a committee to work on it (GIZ, 2020d).

Indicator MI2 on increasing the incomes of producer households could not be assessed properly owing to the absence of a baseline. However, six out of seven farmer groups that were visited reported an increase in incomes (Foc_dis_1-7 with farmers). Since the target value was rather ambitious, partial achievement of the indicator can be assumed.

Indicator MI3 on additional job creation by large producers and processors has been achieved according to the MOAP's M&E data. By the end of 2020, a total of 1,309 additional jobs, including 266 full-time jobs and 1,043 full-time equivalents, were documented (MOAP M&E data). Figures from 2019 point to a representation of 53% women and 82% young adults (under 35 years of age) (GIZ, 2020d). In 2020 the economic setback caused by the Covid-19 pandemic had an impact on additional jobs created by reducing the number of full-time jobs in favour of temporary jobs, but the overall number of full-time equivalents remained stable despite the crisis (Foc_Dis_4 with GIZ). Even though the figures are not based on the '10 largest producers and processors' but include considerably more companies, the evaluation team accepts the full achievement of this indicator.

Indicator MI4 on increased turnover from certified products sold domestically by the three largest off-takers was partially accomplished. The turnover figures rose steadily over the years and reached EUR 294,619 in 2020. In relation to the target of EUR 500,000, the indicator achievement stands at 59%.

Indicator MI5 on reduced EU interceptions was achieved. The evaluation team slightly reformulated the indicator, focusing only on harmful organisms and leaving aside other reasons that are mainly due to documentation issues not counted in the baseline value. The number of intercepted plants and fresh products to the EU was kept significantly under the target value of 58 at most, even after the lifting of the ban.

Table 9: Assessed and adapted objective indicators for specific modules (outcome level)

Project's objective indicator according to the (last change) offer	Assessment according to SMART* criteria	Specified objective indicator
MI1: The Government of Ghana has adopted a **strategic framework** for the development of value chains in accordance with the Comprehensive Africa Agriculture Development Programme (CAADP). Base value (2017): no strategic framework Target value (March 2021): 1 strategic framework Current value (January 2021): 0 **Achievement in % (January 2021): 0%** Source: GIZ (2020d)	Indicator is SMART.	
MI2: The **income** of 85% of the 6,000 producer households in the supported value chains that benefit from MOAP's activities is above the poverty line of USD 1.90 per day per capita.	Indicator is SMART. But there are methodological challenges:	

Project's objective indicator according to the (last change) offer	Assessment according to SMART* criteria	Specified objective indicator
Base value (2014): 78% in Central region, 77% in Volta region, 70% in Brong Ahafo region Target value (February 2021): 85% in all regions Current value (January 2021): not available **Achievement in % (January 2021): unknown (assumption: partially achieved)** Source: MOAP M&E officer, GIZ (2020d)	• Baseline values taken from Ghana Living Standards Survey Round 6 (GLSS6) were rejected by the MOAP project team (since 2018). • An alternative baseline survey was outsourced to a consulting firm but the assignment was not completed. • In 2019/20, MOAP M&E staff conducted their own household survey. Conclusion: there is only one measurement available; without an evaluation basis (baseline) to measure against, assessment is not possible.	
MI3: The 10 largest producers and processors in the supported value chains have created 1,000 **new jobs** (paying above the Ghanaian statutory minimum wage) for women and young people under 35 years of age. Base value (2016): 0 Target value (March 2021): 1,000 Current value (June 2020): 1,178 **Achievement in % (January 2021): 100%** Source: GIZ (2020d)	Indicator is SMART.	
MI4: The **turnover** of the **three largest off-takers** in Ghana from sales of locally produced fruits and vegetables with a sustainability certificate (e.g. Green Label) has increased to EUR 500,000 per year. Base value (2017): EUR 7,000 Target value (March 2021): EUR 500,000 Value (2018): EUR 180,000 (36%) Value (2019): EUR 212,000 (42%) Value (2020): EUR 294,619 (59%) **Achievement in % (January 2021): 59%** Source: MOAP M&E officer, GIZ (2020d)	Comments from MOAP: according to the appraisal mission, the indicator refers only to an increase in turnover from sales in the domestic market. However, this is not specified within the indicator. By year, the three off-takers were: • 2018: Eden Tree, Golden Fruits (HPW) & Kofi Vinyo Co. Ltd • 2019: Eden Tree, Golden Fruits (HPW) & Yilo Mango Farmers Assoc. • 2020: Eden Tree, Freshmark & Agritop	MI4: The **turnover** of the **three largest off-takers** in Ghana from domestic sales of locally produced fruits and vegetables with a sustainability certificate (e.g. Green Label) increased to EUR 500,000 per year between 2017 and 2020.
MI5: The number of **quarantine interceptions** of imports of fresh products from Ghana into the EU has fallen by 80%. Base value (2015): 291 interceptions due to harmful organisms Target value (March 2021): 58 or fewer cases Value (2016): 37 Value (2017): 4 Value (2018): 42 Value (2019): 30 Value (2020): 11 **Achievement in % (January2021): 100%** Source: European Commission (EUROPHYT)	There are generally two different reasons for quarantine interceptions into the EU: (1) the presence of harmful organisms and (2) other reasons (mainly documentation issues, sometimes packaging). Since the baseline only refers to 'harmful organisms' and the documentation issues are mainly due to private postal items that are not official food exports, the indicator is specified accordingly.	MI5: The number of **quarantine interceptions** related to the presence of harmful organisms in the imports of fresh products from Ghana into the EU has fallen by 80%.

* SMART: specific, measurable, achievable, relevant and time-bound

The evaluation team concludes that project objective indicators MI3 and MI5 were fully achieved, project objective indicators MI2 and MI4 were partly achieved, and project objective indicator MI1 was not achieved by the end of the project.

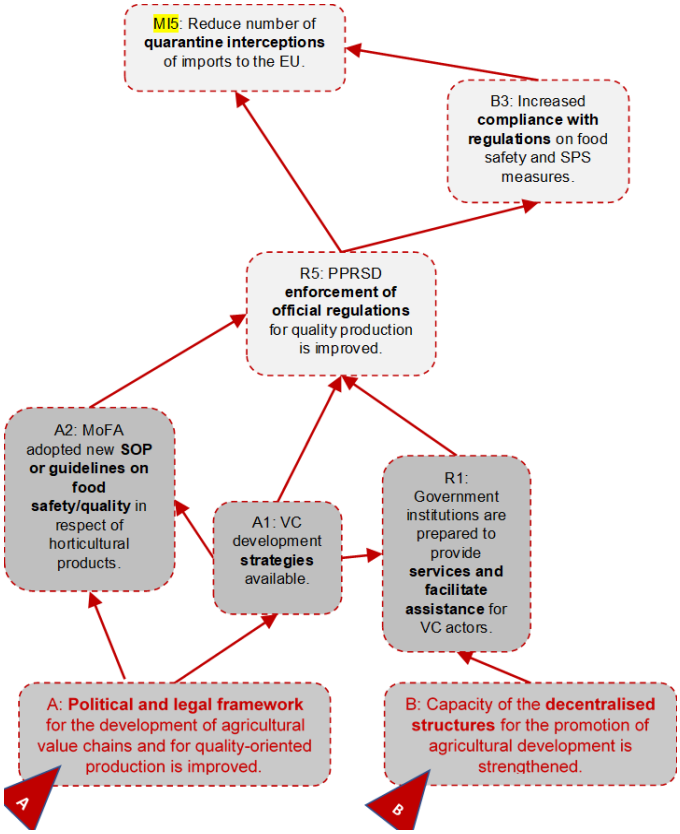
Effectiveness dimension 1 – Achievement of the (intended) objectives – scores **18 out of 30 points.**

Effectiveness dimension 2: Contribution to achievement of objectives

Four hypotheses have been selected to analyse whether the underlying hypothesis can be confirmed to have contributed to the intended effects (see table 11 below).

Hypothesis 1: Government export quality control

Figure 3: Excerpt from results model - hypothesis 1: Government export quality control



When talking about export quality control, the government is responsible for providing sanitary and phytosanitary (SPS) measures to ensure compliance of food exports with internationally agreed standards. In Ghana, PPRSD is the national plant protection organisation responsible for plant health. Food safety issues related to exports are mainly covered by third-party certification in accordance with private standards (e.g. GLOBALG.A.P.).

The first hypothesis to be analysed starts from the assumption that through improved SPS guidelines (A2), VC strategies (A1) and improved public services (R1), the enforcement of official regulations on food safety and quality will improve (R5). Greater law enforcement will then lead to increased compliance by private-sector actors (producers, processors, traders) (B3).

Findings: Unfortunately, there are no available data to verify the achievement of indicator B3. Neither MOAP nor PPRSD could provide data on SPS inspections at border exit points or on-farm. Therefore, the assumed positive correlation between law enforcement (inspections) and compliance cannot be clearly confirmed.

However, there are some indications that the assumption is valid. Recently, PPRSD was able to increase its overall staff numbers considerably from under 200 to about 500 in 2018/2019 (Int_3 with partner). PPRSD staff at the international airport have doubled in number, are better trained and equipped, and follow improved guidelines and SOPs for inspections (Int_9 with partner). The capacity of AEAs to diagnose plant pests and diseases has increased because of the establishment of plant clinics (Survey 2).

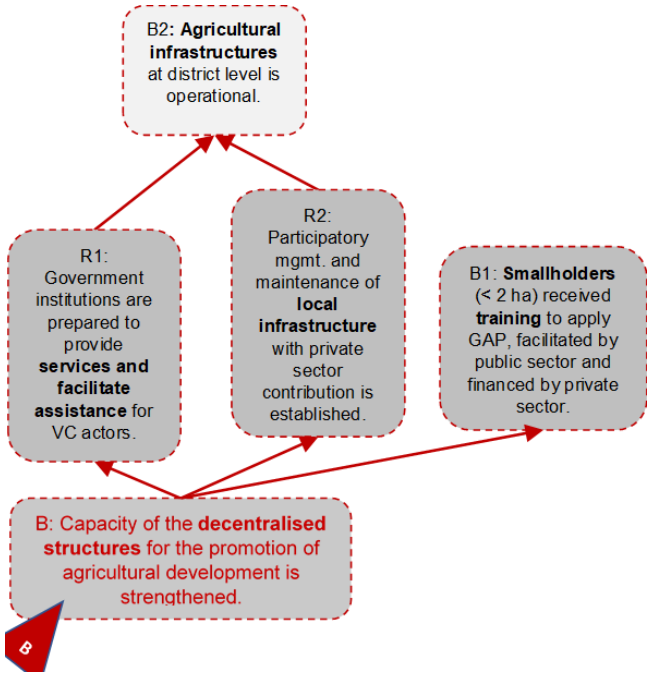
Photo 2: MoFA plant doctors advising citrus farmers (Source: GIZ MOAP)

In addition, private-sector representatives called for an increase in the coverage of SPS inspections and the expansion of traceability to other products. Quality control is limited to specific products that have been red-flagged. Producers should be monitored and rated so that non-compliant free riders can be systematically detected and sanctioned (Int_8 with private sector). Another EU audit in September 2016 concluded that PPRSD had made efforts to address the shortcomings identified during previous audits but that the initiatives were ongoing and not yet complete (EC, 2016: 26). The ban was lifted in January 2018, but in August 2018 another EU alert letter was issued, once again flagging pest issues (false codling moth, fruit fly, thrips) in previously banned vegetables (capsicum, bitter gourd, luffa) (EUROPHYT). In June 2019, the export of four vegetables was suspended by MoFA to avoid another ban.[7] Shortly afterwards, PPRSD with the help of MOAP released six SOPs for inspections of garden eggs, vegetable marrow, leafy vegetables, luffa, momordica and capsicum.

Conclusions: Interceptions of imports into the EU related to harmful organisms have in fact decreased significantly (EUROPHYT). This is mainly due to increased and more effective inspections at central border exit points and the export sector's awareness and support of SPS measures (Int_8 with private sector). Although other donors (USAID, DANIDA, CABI, EU-TRAQUE) have supported PPRSD in making improvements, MOAP's contribution was significant in keeping EU interceptions low (Int_3, 9 with partner). However, PPRSD's work at farm level is still hampered by high transport costs that are not covered by the budget. Farmers need to arrange transport for PPRSD inspectors and, as a result, surprise inspections are not conducted. Traceability is provided only for selected export products and their respective farmers. Other producers are lumped together and not rated in terms of their compliance with SPS and food safety measures (Int_8 with private sector).

[7] www.graphic.com.gh/news/general-news/ghana-news-ghana-bans-all-leafy-veggie-exports.html 18 April 2021]

Figure 4: Excerpt from results model - hypothesis 2: Demand-oriented public services for local VCD



Hypothesis 2: Demand-oriented public services for local VCD

In order to increase the operability of agricultural infrastructure at district level (B2), the role and service delivery of decentralised government actors is improved (R1) and the private sector is encouraged to invest in value chain development (R2, B1).

Findings: Again, there is not enough available information (e.g. a baseline) to assess indicator B2. From the evaluation team's perspective, there is no evidence that any additional infrastructure is operational today that was not so beforehand. MOAP monitored four irrigation schemes, which were handed over to WUAs for management and maintenance, and 13 storage and processing facilities, 12 of which are privately owned. However, all of these 17 instances of infrastructure were operational beforehand (GIZ, 2020c, Int_5 with partner, Foc_dis_1 with farmers). The remainder of the 43 examples of agricultural infrastructure referred to in the formulation of B3 are unknown and were not specified within MOAP's M&E documentation. A final assessment of the four supported irrigation schemes identifies alarming challenges: land tenure issues remain unresolved, most WUAs are becoming weaker, by-laws are not approved, there are a lack of maintenance and annual work plans including budgets, the low irrigation service charge does not meet the demands of operation and maintenance, and there is low cropping intensity, a low application of GAPs, and low efficiency of water use leading to concerns over sustainability (GIZ, 2021: 10-12). Moreover, marketing and loans to pre-finance input costs are serious challenges for almost all irrigation schemes (Int_5 with partner, Foc_dis_1 with farmers).

Conclusions: The hypothesis cannot be confirmed. In particular, R2 did not occur as assumed, since, for example, farmers' willingness and ability to take ownership of the management and maintenance of irrigation schemes remain limited. When the public subsidy is left out, the real costs of the irrigation privilege become apparent and can be afforded only through strong management, efficient cultivation and a business orientation. However, MOAP did not start to work with the WUAs until 2018 and the process slowed as a result of land disputes in three of the irrigation schemes. Ultimately, the process of formulating by-laws was not concluded, so the internal regulations of the WUAs remain in draft form and have not been validated (Int_5 with partner). MOAP's contribution to increasing the operability of agricultural infrastructure has fallen short of the target.

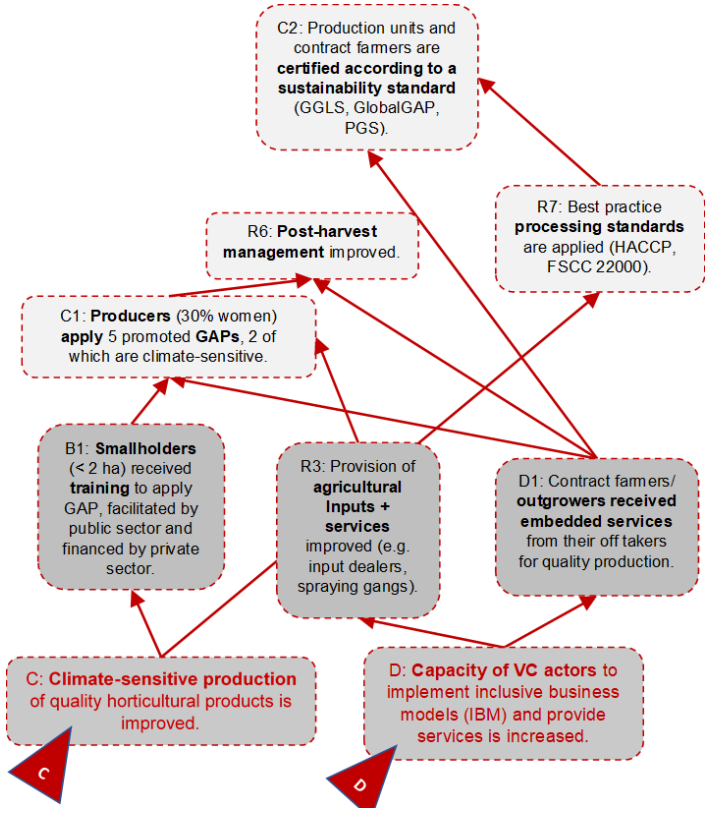
Hypothesis 3: Climate-sensitive and inclusive quality production

The main objective was to improve quality production, which would be confirmed by the additional certification of farmers and production units in accordance with sustainability standards (C2). To this end, the main activities included the capacity development of farmers and processors, the preparation of didactic materials and methods (extension videos and demonstration plots), and support for local certification schemes (GGL, PGS), international certification schemes (GlobalG.A.P., organic standard, HACCP, FSCC 22000) and domestic consumer sensitisation. In addition, off-takers were trained in contract farming and outgrower schemes, and support was given to business plan development and marketing (domestic and export).

Through the capacity development noted above, agricultural production services (B1, R3, D1) were improved and GAPs and GMPs were promoted. Consequently, the adoption of GAPs (C1), post-harvest management

(R6) and processing techniques (R7) would have led to an increase in the number of certified producers (C2). It was also assumed that climate-sensitive practices would increase through the adoption of GAPs and that inclusive business models would increase through the promoted service arrangements.

Figure 5: Excerpt from results model - hypothesis 3: Climate-sensitive and inclusive quality production



Findings: MOAP M&E data shows that a total of 1,779 farmers were trained within the scope of 13 memoranda of understanding between the public and private sectors. As a result, indicator B1 has been partially achieved (60%). Six processing companies have provided embedded services (e.g. input pre-financing, certification support, extension and training) to about 3,500 outgrowing farmers, so indicator D1 has been fully achieved (Foc_Dis_4 with GIZ, MOAP M&E data).

According to MOAP M&E data, R3 has also been achieved: in a baseline survey conducted in all four regions in 2017, only 5% of 240 surveyed farmers were satisfied with their input dealers. In another survey of 50 farmers in Volta and Central regions in 2020, 78% of clients were 'satisfied' or 'very satisfied' (GIZ, 2021; MOAP raw data from surveys in XLS files). Also, according to an MOAP survey, 63% of 235 interviewed farmers stated that they practice the 'efficient and safe use of approved pesticides'.

Indicator C1 on the application of at least five GAPs by farmers has only been partially achieved. An internal MOAP survey of a sample of 235 farmers came to an overall mean value of 48% of farmers applying five and more GAPs. Moreover, the distribution among the different VCs varies widely: citrus (12%), mango (82%), pineapple (62%) and vegetables (36%). Therefore, if the mean value is calculated based on the actual numbers of farmers trained per VC (citrus: 3,829; mango: 1,536; pineapple: 527; vegetables: 1,261; other: 205), it only adds up to 36%, that is, 2,571 out of the total 7,358 farmers trained. Given the target value of 4,200, the indicator achievement for C1 is 61% (GIZ, 2020d; MOAP M&E data). Also, R6 was affected by the application of GAPs (C1), since they include harvest and post-harvest practices (e.g. selective harvesting, use of crates and harvesting sacks). Processors that offered embedded services to their outgrowers and other small and medium-sized processing enterprises were trained in the introduction of GMPs, which resulted in the implementation of quality management, licensing by the US Food and Drug Administration, and certification in accordance with an international standard (HACCP, FSCC 22000), the latter being financed by GIZ's Alliance for Product Quality in Africa (Int_5 with GIZ). As for the final result, the certification of farmers in accordance with sustainability standards (C2), 1,867 farmers were certified with a total of 2,193 certificates[8] and the share of female producers was 15%, which points to overachievement of the indicator (GIZ, 2020d; MOAP M&E data).

[8] Fair Trade: 1,755, GLOBALG.A.P.: 131, organic: 246, Ghana Green Label: 61

Conclusions: The results hypotheses seem to have worked out in principle. However, some aspects are particularly noteworthy. For example, 1,709 farmers who were already certified in 2017 in accordance with Fairtrade belong to the Central Region Organic Citrus Farmers Association (CROCFA), the 'largest organic citrus producer association in Ghana with over 3,000 members', which had already received support from the previous module (GIZ, 2016a: 16). Hence, it can be deduced that the certification of this large group was relatively easy since they had already been prepared. Moreover, the Fairtrade certificate is valid for four years until November 2021, so the issue of recertification does not fall within the project timeline.

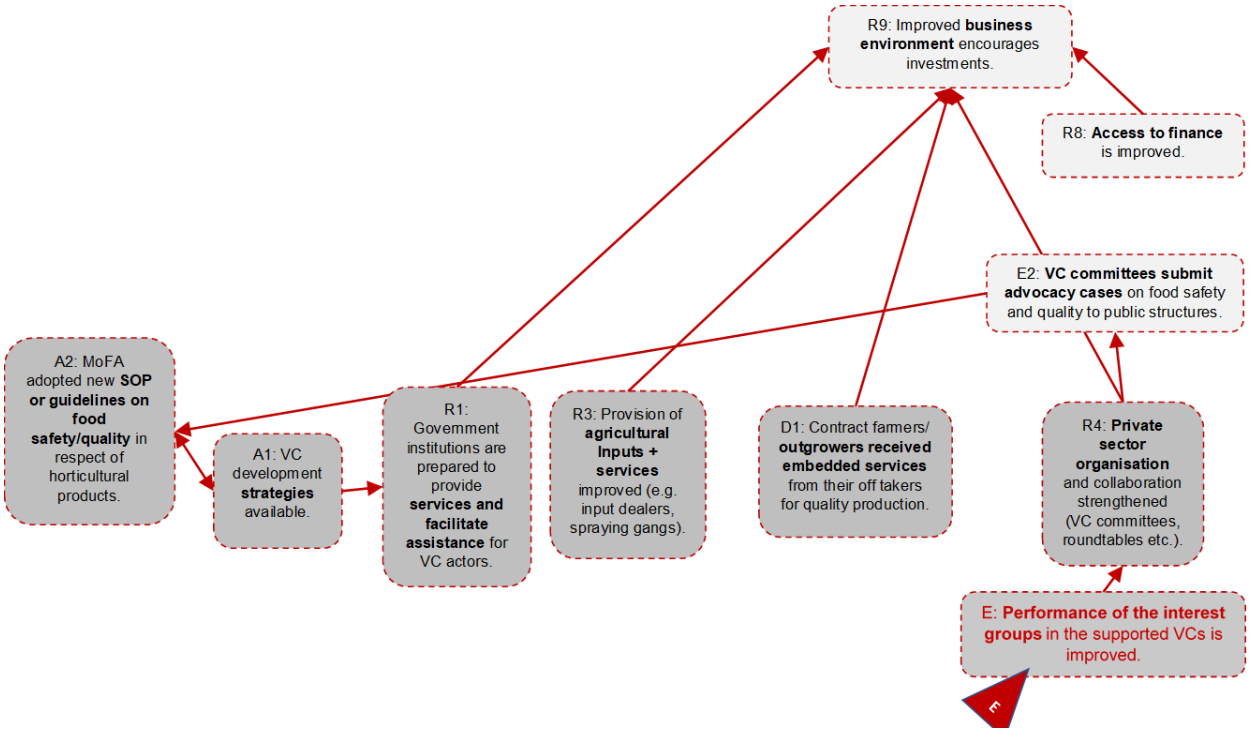
For the years of 2018, 2019 and 2020, only 158 additional farmers were certified with MOAP support in accordance with GLOBALG.A.P. (mango, pineapple), organic (pineapple, citrus) and Ghana Green Label (vegetables). The assessment has shown that the assumptions worked out, but that the output ratio is substantially lower than the official figures would suggest at first glance.

Hypothesis 4: Public–private dialogue and vertical VC coordination

Hypothesis 4 was based on the assumptions that public stakeholders (ministries and authorities) are interested in solutions developed in cooperation with the private sector, and that the private sector is willing and able to cooperate and invest in joint efforts. Also, an improved business environment will create a win-win situation that can serve as leverage for VC development, because it builds the trust needed for further cooperation and private-sector investment. In the figure below, the focus is on output E, while the results for other outputs are shown in order to indicate the interlinkages.

Findings: VC interest groups were supported by MOAP in various ways, e.g. organisational development for FBOs, subsidies for VCC meetings and study trips, subsidies for FAGE's national roundtable meetings and participation in international trade fairs (Fruit Logistica, BIOFACH, Interpack), and support to the West African Organic Conference and Ghana Green Label's brand and marketing campaign (MOAP plans of operations 2017-2020). Indicator E2 was formulated to represent increased private-sector collaboration on joint advocacy for government policies and measures. The project archived several documents, five of which were admitted by the evaluation team: two declarations by the West African Organic Conference (held in Senegal in 2018 and in Ghana in 2019), and three petitions from mango stakeholders to MoFA (in June 2019, July 2019 and December 2020) for urgent action against pests and diseases (fruit fly and mango bacterial black spot). PPRSD reacted in August 2019 with a dossier detailing phytosanitary measures to address mango exports threatened by fruit flies. However, this was due to new requirements in the mango sector that were imposed by the EU and took effect on 1 September 2019. Indicator E2 can be regarded as partially achieved (5 out of 12 advocacy cases). Improved access to finance (R8) was thought to be provided by other actors (e.g. KfW's OVCF), but it was also addressed by MOAP within the business models, in which the integrated services provided by off-takers function as pre-finance for agricultural services and inputs. In addition, MOAP supported the establishment of the Ekumfi Cooperative Credit Union. With regard to improved business environment, processors rated the statement 'interaction and cooperation between people and actors have improved due to the project's presence' at a mean value of 7.6 on a 10-point scale (where 0 = 'do not agree at all' and 10 = 'fully agree') (Survey 3).

Figure 6: Excerpt from results model - hypothesis 4: Public–private dialogue and vertical VC coordination



Conclusions: Listening to private-sector stakeholders engaged in Ghana's fruit and vegetable sector, it became obvious that they have been stimulated and encouraged by MOAP. Their response to offers from the project has become more active and dynamic. In contrast, public-sector institutions have faced difficulties and constraints in taking up their role. Especially when it comes to plant health issues, VC interest groups from the private sector demand much stronger action from PPRSD, particularly regarding on-farm inspections in order to rate farmers properly and establish broader traceability (Int_2, 8 with private sector). At the decentralised level, transport costs are so high that participation at VCC meetings and on-site visits by PPRSD field staff require the use of allowances (Int_2 with private sector, Int_3 with GIZ). The major challenge that faces the public sector, in particular MoFA, is to assume a more proactive, facilitating role despite the overall budget constraints that hamper operations. Value chain development requires complex and creative facilitation at different levels of the VC to ensure vertical integration. While the private sector is increasingly represented in official spaces (e.g. ASWG and annual sector review meetings), a stable, constructive public–private dialogue does not yet appear to be established for the fruit and vegetable sector at national level. At least for the mango subsector, the newly established TCDA could bring some progress.

Table 10: Selected results hypotheses for effectiveness

Hypothesis 1 (activity – output – outcome)	**Government export quality control**: By strengthening regulatory instruments (A2) and the capacities of PPRSD, better enforcement of food safety and SPS (sanitary and phytosanitary) regulations (R5) will lead to increased compliance (B3).
Main assumption	Shipments and air cargo to the EU are not sufficiently checked at exit points and it is the duty of government authorities (PPRSD) to ensure quality control. PPRSD and decentralised agricultural administrations have budget funds available for food safety and SPS inspections. Exporters increase compliance when facing a higher risk of interception from improved law enforcement. A positive correlation between law enforcement (inspections) and compliance is assumed.

Risks/unintended results	A lack of budget funds might hinder compliance with food safety procedures and legislation.
Alternative explanation	Exporters have their own interest in reducing quarantine interceptions and will thus work voluntarily towards compliance with export regulations. In this case it could be expected that a high number of interceptions or a ban will induce a trend towards higher (self-imposed) compliance, which will be loosened again when bans are lifted. As long as the national infrastructure is not sufficiently developed so as to establish a full quality assurance system, the curve of quarantine interceptions will go up and down.
Confirmed/partly confirmed/not confirmed	Largely confirmed
Hypothesis 2 (activity – output – outcome)	**Demand-oriented public services for local VC development**: The main activities are the capacity development of government staff (MoFA, MLGRD) at district level (e.g. in facilitation, participatory planning, ValueLinks approach, regulations and standards on food safety and product quality, and good agricultural practices), the facilitation of linkages between the public and private sectors, the assessment of infrastructure, and support to logistics and public service delivery. As a result, the role and service delivery of decentralised government actors is improved (R1) and the private sector is encouraged to invest in value chain development (R2, B1) and the operability of agricultural infrastructure (B2).
Main assumption	Public services at the decentralised level are not sufficiently demand-oriented and therefore have significant room for improvement. To this end, agricultural administrations have budget funds available for food safety inspections and other services. It is also assumed that the private sector is willing and able to contribute to improving agricultural services (e.g. training and infrastructure).
Risks/unintended results	Land conflicts and increasing costs of land in the South, especially in peri-urban areas
Alternative explanation	Buy-in of private sector for jointly managed infrastructure and/or services is not durable owing to intrinsic motivation, but is instead temporary because of expected benefits through incentives provided by the government and/or donors.
Confirmed/partly confirmed/not confirmed	Rather not confirmed
Hypothesis 3 (activity – output – outcome)	**Climate-sensitive and inclusive quality production**: The main objective is to improve quality production, which is confirmed by additional certification of farmers and production units in accordance with sustainability standards (C2). To this end, the main activities include the capacity development of farmers and processors, the preparation of didactic materials and methods (extension videos and demonstration plots), and support for local certification schemes (Ghana Green Label Standard, Participatory Guarantee System), international certification schemes (GlobalG.A.P., organic standard, HACCP, FSCC 22000), and domestic consumer sensitisation. In addition, off-takers are trained in contract farming and outgrower schemes, and support is given to business plan development and marketing (domestic and export). Through the capacity development noted above, agricultural production services (B1, R3, D1) are improved and GAPs and GMPs are promoted. Consequently, the adoption of GAPs (C1), post-harvest management (R6) and processing techniques (R7) will lead to an increase in certified producers (C2).
Main assumption	Private actors (e.g. farmers, processors and off-takers) are willing and able to change their patterns of behaviour to achieve increased quality production and cooperation and investment in common interests (e.g. services and infrastructure).They only lack the training and orientation to do so.

	It is assumed that the private certification system ensures product quality and contributes to more resilient agricultural production with respect to the effects of climate change. Finally, product markets offer sufficient monetary incentives to produce quality products for the market.
Risks/unintended results	Youth do not seem to be very interested in agriculture. New pesticides that are harmless to health and the environment and necessary for quality production need to be registered with the Ghana Environmental Protection Agency (EPA), but the cost of the process is prohibitive. Contract farmers jeopardise the financing of services offered by buyers when they act improperly by selling percentages of their harvest to non-contractual partners.
Alternative explanation	Smallholders and producer associations cannot afford the costs of certification on their own and therefore need to be subsidised (by the government or the project).
Confirmed/partly confirmed/not confirmed	Partly confirmed
Hypothesis 4 (activity – output – outcome)	**Public-private dialogue and vertical VC coordination**: Strengthening private-sector cooperation and organisation (R4) within the specific value chains supported by MOAP South (mango, pineapple, citrus and vegetables) through training, advice and finance. One result is the submission of advocacy cases on value chain development to the respective public institution (E2), backed by members of the whole interest group. Better private-sector cooperation (R4), embedded (D1) and improved (R3) agricultural services, government actors ready to facilitate rural development and meet private-sector demands (R1) and easier access to finance (R8) will lead to an improved business environment (R9).
Main assumption	Public stakeholders (ministries and authorities) are interested in solutions developed in cooperation with the private sector, and the private sector is willing and able to cooperate and invest in joint efforts. An improved business environment will establish a win-win situation that can serve as leverage for VC development because it builds the trust needed for further cooperation and private-sector investment.
Risks/unintended results	So far not identified
Alternative explanation	Private-sector organisation and initiatives are boosted by MOAP's spirit and funds. In fact, stakeholders have major difficulties sustaining the agendas of VC interest groups.
Confirmed/partly confirmed/not confirmed	Partly confirmed

Effectiveness dimension 2 – Contribution to achievement of objectives – scores **21 out of 30 points.**

Effectiveness dimension 3: Quality of implementation

What assessment can be made of the quality of the intervention's steering and implementation in terms of the achievement of objectives? What assessment can be made of the quality of steering and implementation of, and participation in, the intervention by the partner/executing agency?

The basis of the evaluation is the extent of the quality of MOAP steering and implementation (including the establishment and use of monitoring and Capacity WORKS success factors 1-joint strategy, 2-cooperation system, 3-steering structure, 4-processes, 5-learning and innovation).

The quality of the project's technical implementation has been highlighted and appreciated by stakeholders as a strength (Int_8 with other stakeholder, Survey 2, 3). At the decentralised level, project implementation and cooperation with MoFA worked quite well (GIZ 2019b).

The steering was a challenge throughout the project timeline for several reasons: a difficult relationship with the partner institution, integrity issues with project staff, a broad portfolio of interventions, and increased administrative burdens that were also due to EU co-financing of MOAP in the North-West (Int_4 with GIZ, Int_8 with other stakeholder). It is assumed that the relationship between MoFA and MOAP deteriorated when the project moved its offices out of the ministry's building during a previous module and lost the advantage of proximity that is key to maintaining a close relationship with the partner (Int_1 with GIZ).

After a new government took office in 2017, controversies over project modalities and decision-making between the political partner and German DC could not be settled, even during governmental consultations in 2018. This has prevented the establishment of a formal basis of cooperation between MoFA and GIZ through the signing of an implementation agreement. MoFA did not perform its steering role well enough at macro level (GIZ, 2019b: 21).

In fact, the evaluation team noticed the partner's quasi-withdrawal from co-responsibility and ownership at national level. Unfortunately, the team's requests for information and interviews met with only partial responses, so any understanding of the partner's perspective at national level remains limited. However, it was observed that MoFA did not participate actively in the monitoring, but was informed quarterly by MOAP through detailed progress reports including an updated results matrix.

Consideration of the five Capacity WORKS success factors was indicated in the former MOAP capacity development strategy 2014–2016 and the technical offer from the consultancy for outputs C, D and E. However, neither updates nor reviews have been conducted.

From the evaluation team's perspective, strategic steering and decision-making with active use of the monitoring system and the Capacity WORKS tool box did not play a prominent role. Neither a clear interpretation of indicators nor a designation of strategic observation areas appears to have been done. Some monitoring was conducted extensively, but its use for strategic steering or learning could not be observed. With the partner's withdrawal, the macro-level of the strategy and the steering structure should have changed. An exit strategy, mentioned in the second change offer, could not be detected. Information and knowledge management was not conducted systematically or strategically, and even the evaluation team faced difficulties accessing relevant information and knowledge products prepared by the project.

Effectiveness dimension 3 – Quality of implementation – scores **14 out of 20 points.**

Effectiveness dimension 4: Unintended results

To what extent can unintended positive/negative direct results (social, economic, environmental and among vulnerable beneficiary groups) be observed/anticipated? How has the intervention responded to the potential benefits/risks of the positive/negative unintended results?
According to the self-assessment, MOAP staff rated the statement 'no project-related (unintended) negative results have occurred – or if any have, the project responded adequately' at a mean value of 7.9 on a 10-point scale (Survey 1).

The breakdown of the relationship with the political partner can be noted as an unintended negative result. Some interviewed partners rather minimised the circumstance that the partnering relationship at the political level between MoFA and GIZ was more than difficult (Int_4 with GIZ, Int_7 with other stakeholder). Others described the negative effects of the conflict at the working level or noted that the dispute pointed to an

unresolved issue within German DC: the discrepancy between rigid workflows and the partner's demands for ownership and autonomy (Int_1, 2 with GIZ, Int_8 with other stakeholder, Survey 1). The unintended dispute led to the result that the intervention at macro-level did not meet its targets or improve the political framework conditions.

In addition, the failure to settle the dispute creates a risk for further rifts in the relationship, which may crop up unwittingly. Therefore, adequate awareness of the political economy and effective use of soft skills are keys to building partnerships based on mutual understanding and partner dialogue, especially in countries like Ghana, Kenya or the Ivory Coast (Int_1 with GIZ, Int_8 with other stakeholder).

Effectiveness dimension 4 – Unintended results – scores **14 out of 20 points.**

Methodology for assessing effectiveness

Table 11: Methodology for assessing OECD/DAC criterion: effectiveness

Effectiveness: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Achievement of the (intended) objectives	Extent of outcome indicator achievement (from 1 to 5). The project's objective is: Quality production is improved in the agricultural sector. Outcome indicators are: MI1: Strategic framework adopted MI2: Increased income for smallholders MI3: New jobs created in production and processing MI4: Increased turnover for largest off-takers MI5: Reduced EU quarantine interceptions of imports SMART criteria have been largely met.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions • Online survey (optional)	Quality of monitoring data varies, especially for indicator MI2 (income), for which the data are incomplete and data quality cannot be assessed at this stage.
Contribution to achievement of objectives	Hypothesis 1: **Government export quality control** Hypothesis 2: **Demand-oriented public services for local VC development** Hypothesis 3: **Climate-sensitive and inclusive quality production** Hypothesis 4: **Public–private dialogue and vertical VC coordination**	**Evaluation design:** Contribution analysis **Empirical methods:** • Document analysis • Interviews • Focus group discussions • Online survey (optional)	Available MOAP monitoring data for output indicators B2, B3 and C1 are weak, not available or methodologically unclear; primary data collection in a semi-remote situation is limited.
Quality of implementation	Degree of the quality of MOAP steering and implementation (including the establishment and use of results-based management (RBM) and Capacity WORKS success factors: 1-joint strategy, 2-cooperation system, 3-steering structure, 4-processes, 5-learning and innovation).	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	No systematic use of RBM (beyond quarterly progress reports to the project partner) or Capacity WORKS for strategic steering was documented.

Effectiveness: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Unintended results	Observation of unintended positive and negative results. Assessment of benefits/risks arising from observable unintended positive/negative results. Extent to which MOAP responded to the benefits/risks arising from observable unintended positive/negative results.	**Evaluation design:** Exploratory evaluation **Empirical methods:** • Document analysis • Interviews • Focus group discussions • Elements of outcome mapping and harvesting	Relevant unintended results were not documented in the project documentation.
* SMART: specific, measurable, achievable, relevant and time-bound			

4.5 Impact

This section analyses and assesses the project's impact. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see annex).

Summarising assessment and rating of impact

Table 12. Rating of OECD/DAC criterion: impact

Criterion	Assessment dimension	Score and rating
Impact	Higher-level (intended) development changes/results	26 out of 30 points
	Contribution to higher-level (intended) development results/changes	35 out of 40 points
	Contribution to higher-level (unintended) development results/changes	20 out of 30 points
Impact score and rating		Score: **81 out of 100 points** Rating: **Level 2: successful**

In the context of the MOAP programme since 2004 and other development partners' efforts, the project has contributed to improving the competitiveness of the horticultural subsector. For example, export rates have been increased (mango), recessions have been cushioned (citrus, pineapple) and new niches have been tapped (organic, peels, vegetables). Also, value has been added, job opportunities (especially for women and young adults) have been created, and farmers have been able to increase their revenues through improved market access. The public sector has internalised the VCD approach and is starting to take a more private sector-oriented perspective toward the promotion of the agricultural sector. While public-private dialogue has not yet been institutionalised, the horizontal and vertical relationships of VC stakeholders have improved. Increased awareness of food safety and quality issues is expected to become even greater as local voluntary standards (GGL, PGS) gain ground.

While the economic dimension of sustainable development has been the focus of the project, evidence of positive or unintended impacts is weak with regard to the social and environmental dimensions. The supposed trickle-down effect and the contribution to pro-poor growth need to be further investigated and monitored. The expectation that export-oriented agriculture would contribute to economic growth without having any negative environmental effects appears rather unrealistic.

In total, the impact of the project is rated Level 2: successful, with 81 out of 100 points.

Analysis and assessment of impact

Impact dimension 1: Higher-level (intended) development changes/results

This section is closely related to impact dimension 2, so any topics that are treated in-depth under the next dimension are mentioned only briefly here.

To what extent can the higher-level development changes to which the intervention will contribute be envisaged in general, at the level of the intended beneficiaries and with regard to particularly disadvantaged/vulnerable groups of beneficiaries and stakeholders?

The basis of the evaluation is the extent to which the project has contributed to higher-level impacts mentioned in the project proposal: increased production and reliability of yields, increased competitiveness of the agricultural sector, increased exports, rural development, and poverty reduction from income and job opportunities. Other higher-level impacts include the extent of improvement in the business environment and private–public dialogue and cooperation, and the extent of income and job opportunities for smallholders and poor population, especially women and youth (<35 years old) (GIZ, 2016b).

The project has contributed to increasing the production and competitiveness of the horticultural subsector and to enhancing or securing export revenues (see dimension 2 below). Public-sector partners rated the statement 'MOAP has been widely successful and had a positive impact on the Ghanaian agricultural sector' at 8.2 on a 10-point scale (Survey 2). Moreover, the project has created job opportunities for women and young adults and resulted in higher incomes at farmer level, and both of these improvements have proved to be rather robust in the face of the pandemic (see section 4.4).

At the social level, the project has contributed to strengthening the horizontal and vertical relationships of VC actors: private-sector representatives rated the statement 'the interaction and cooperation between people and actors have improved due to the project's presence' at 7.6 on a 10-point scale (Survey 3, Foc_dis_7 with farmers).

Even though the private sector is increasingly participating in MoFA's sector coordination, a strong, institutionalised public–private dialogue has not yet been established. The originally envisaged Agricultural Private–Public Dialogue Forum run by the Private Enterprise Federation did not prove functional, so MOAP approached FAGE in 2016 (GIZ 2017a: 10). FAGE contributed a great deal to the macro-level coordination of VCs by hosting roundtables for mango, pineapple and vegetables and carrying out other important initiatives, such as providing assistance to PPRSD in the development of SPS guidelines for mango and vegetables and in relation to Ghana's interpretation of the GLOBALG.A.P. standard (Int_2 with private sector). However, it seems questionable whether a federation of exporters should also take on the key responsibility of sustaining a public–private dialogue, given rather limited resources and the many tasks involved in private-sector coordination.

With respect to the achieved operations of the Ghana Green Label (GGL) certification scheme, which went into effect in April 2019 and had certified 217 farmers in 17 groups by January 2021, MOAP has contributed to at last setting up a local food safety label that was originally initiated in 2011 (Int_7 with partner). GGL, which is definitely innovative for Ghana, establishes a voluntary mechanism to foster local food safety and provides a stepping stone toward GLOBALG.A.P. certification for export. Together with the PGS of IFOAM's Organic Markets for Development initiative, less expensive certification schemes for the local market have now become available and can be expected to contribute further to increasing sensitisation on food safety and quality issues.

Photo 3: Women processing mangoes (Source: GIZ MOAP)

Another topic that needs further investigation beyond this evaluation is the assumption of trickle-down effects from VCD. As part of the evaluation, the monitored additional jobs that have been created show a representation of 53% women and 82% young adults (GIZ, 2020d). Further job opportunities have emerged along the VCs, including in pruning, nursery, weeding, harvesting, packaging and loading, advice and certification (Foc_dis_1, 3, 4 with farmers). However, the evaluation was unable to confirm whether particular disadvantaged and vulnerable people were reached through a sectoral, market-oriented approach. In general, 'the often insufficient differentiation of the poorer population strata in the conception of projects and programmes harbours the risk that development cooperation may lose sight of chronically poor people as well as other marginalised groups, since it is assumed that all poor people can potentially be reached' (DEval, 2016: xi).

A last aspect is the environmental dimension. According to data retrieved from FAOSTAT, the area from which the crops for the four supported VCs were harvested decreased by 41.2% between 2005 and 2019, falling from almost 80,000 hectares to 46,900 hectares. In combination with increased value added and a significant reduction in weight (see dimension 2 below), it could be concluded that the environmental footprint would be smaller. However, this is a far too simplistic conclusion that cannot be supported in the present case, which is also affected by divergent data. Moreover, the production data obtained from FAO and MoFA do not coincide with information on harvest losses from pests and diseases, and a potential inconsistency in the production figures provided by the same sources is also noted by others (IFPRI, 2020: 46). For instance, farmers reported that access to a tractor enabled them to expand the size of their holdings. The same group raised concerns about the disposal of plastic mulch that was being used as part of GAPs (Foc_dis_7 with farmers). Moreover, the knock-on effects from upgrading a VC – for example, the cooling and air transport of fresh export products – include emissions that have not even be considered, much less monitored. The expectation that export-oriented agriculture would contribute to economic growth without having any negative environmental effects appears rather unrealistic.

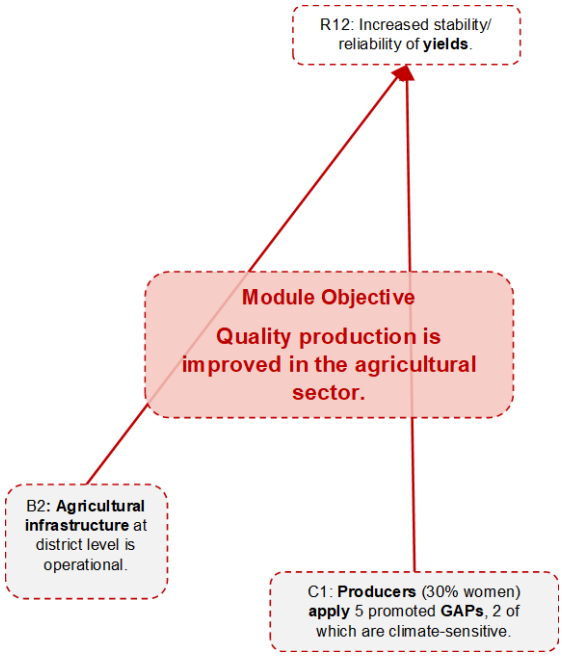
Impact dimension 1 – Higher-level (intended) development changes/results – scores **26 out of 30 points.**

Impact dimension 2: Contribution to higher-level (intended) development results/changes

The contribution is assessed in relation to two hypotheses based on the reconstructed results model.

Hypothesis 5: Quality production and resilience of smallholders

Figure 7: Excerpt from results model - hypothesis 5 (impact): Quality production and resilience



It is assumed that the application of climate-sensitive GAPs (C1) and the availability of operational agricultural infrastructure (B2) will have positive effects on soil fertility, moisture/water management, etc., which will make smallholders more resilient to weather extremes and lead to increased reliability of yields (R12).

Findings: In the previous section, it was noted that no evidence was found that the operability of and access to agricultural infrastructure have increased. As for the application of GAPs, the data from the M&E survey conducted by the project show that the GAPs most adopted by farmers are related to safety and pest management ('use of personal protective equipment': 77%; 'efficient and safe use of approved pesticides': 63%). Adopted GAPs that have a certain relevance for climate resilience were: 'abstaining from burning crop residues' (38%); 'mulching and/or no-till agriculture' (31%); 'use of cover crops or legumes before main crop' (15%); 'planting of shelter belts' (11%); 'maintaining pockets of natural vegetation' (10%); 'use of organic matter source' (5%); and 'water-efficient irrigation techniques' (3%) (MOAP M&E data). In the Eastern region, the project was also involved in capacity development for conservation agriculture, including agroforestry and mixed cropping systems (Foc_Dis_3 with GIZ).

Since the project did not consistently monitor yield information, the evaluation team requested data from MoFA. However, the obtained datasets did not seem reliable. Conspicuously, many crops showed the exact same upward yield trends. Data obtained from the statistical services of FAO show steadily increasing annual yield trends for orange, mango, chilli and pineapple throughout the last 15 years. Again, however, the data quality can be questioned. For mango, for example, there was 'a fall in yield of the produce caused by attacks of bacteria (bacterial black spots), pests and fungal (anthracnose) diseases' (GEPA, 2020: 13). On the other hand, a general increase in yields as a result of the introduction of GAPs has been confirmed by farmers (Foc_dis_1, 3, 4, 5, 6, 7 with farmers).

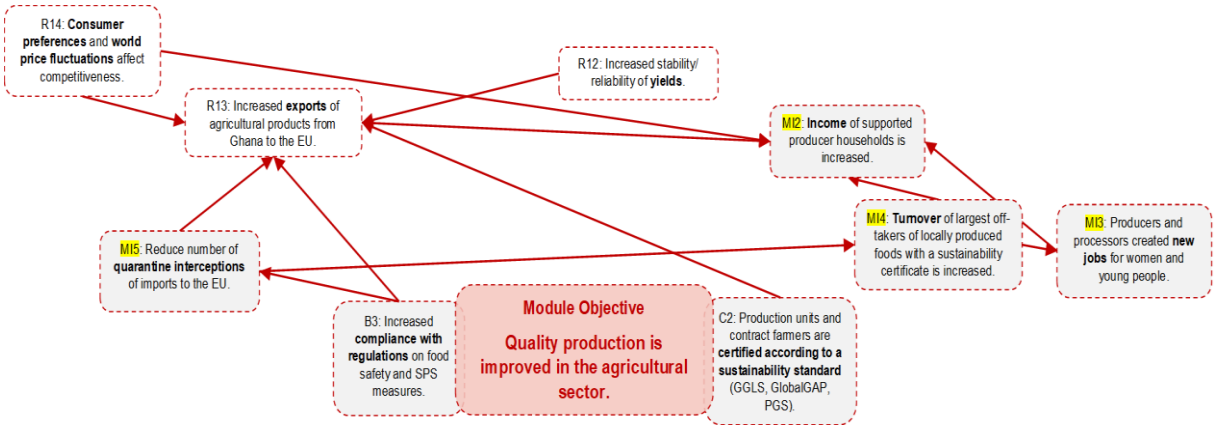
Conclusions: The data are not solid enough to assess the hypothesis properly. An increase in yield was substantiated by various sources. However, this does not necessarily entail increased stability or resilience.

Hypothesis 6: VCD for export competitiveness

The assumption was that increased compliance with regulations (B3), a growing number of producers certified in accordance with sustainability standards (C2), the higher reliability of yields (R12) and a reduced number of quarantine interceptions of imports into the EU (MI5) would cause an increase in exports of agricultural products from Ghana to the EU (R13) because more and better agricultural products would be produced that meet the demand in European markets and are able to compete internationally. Additional main assumptions were that horticultural products are attractive for smallholders because they are labour-intensive and can be produced cost-effectively on small plots. Strengthening the role of the private sector would have a positive influence on the government's sector policies and investments. The successful implementation of inclusive business models (IBMs) would attract additional private investment, which would create more income and job

opportunities. Accordingly, coordinated public and private investment in systematic, strategic VC development and quality production would eventually strengthen the competitiveness of the whole agricultural sector and open up new opportunities for exports.

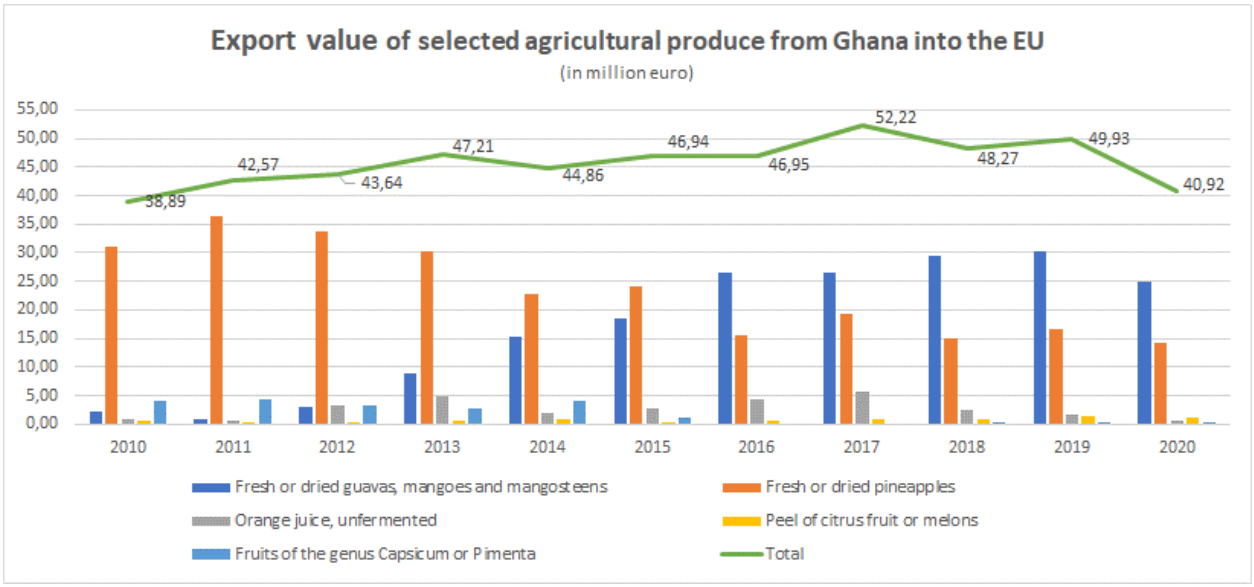
Figure 8: Excerpt from results model - hypothesis 6 (impact): VCD for export competitiveness



Findings: All of the official project indicators were analysed and assessed in the previous section, so the focus here will be on export trends and underlying assumptions.

The figure below shows the evolution of selected, MOAP-promoted exports from Ghana into the EU between 2010 and 2020. The overall long-term trend is positive, although the increase between 2010 and 2020 is only 5.2%. The former dominance of pineapple exports was replaced by mango, while orange juice had its ups and downs and, in the end, could not prevail against international competition. Chilli (capsicum) has not yet recovered to its level before the ban in 2015. Finally, citrus peel is poised to conquer a niche, enabling citrus farmers to find an alternative market for their produce.

Figure 9: Export values of selected agricultural produce from Ghana into the EU



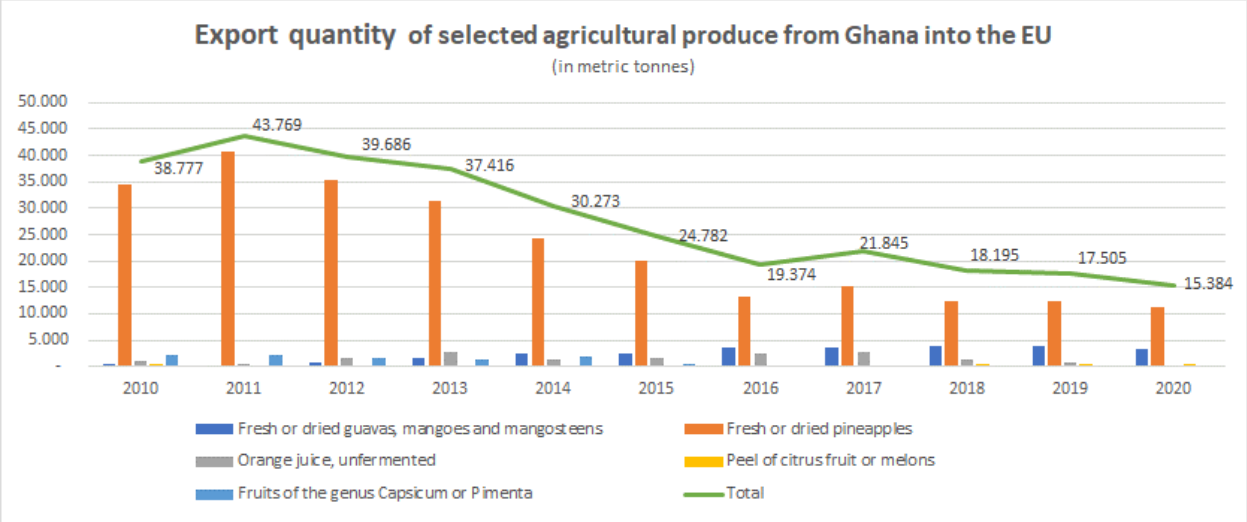
Source: Eurostat, https://ec.europa.eu/eurostat [24 April 2021]

Recent developments in the two major crops drew the following remarks from the Ghana Export Promotion Authority (GEPA): 'Mango recorded a downward trend performance in 2019 relative to 2018, reflecting a fall of 3.23%. This was due to a fall in the yield of the produce caused by attacks of bacteria (bacterial black spots), pests and fungal (anthracnose) diseases. Pineapple also recorded a fall, which was 0.28% in performance in 2019 relative to 2018. This was due to adverse weather conditions, low quality of fertilizers and inadequate

finance to implement the full protocols for cultivating the MD2 pineapple variety' (GEPA, 2020: 13). Between 2018 and 2019, mango exports from Ghana to the following European countries fell sharply: Belgium (down 54.3%), Germany (down 37.9%), Italy (down 13.1%) and the UK (down 14.6%) (GEPA, 2020: 35-37).

The next figure gives an overview of the export quantities of the same products by weight over the same period.

Figure 10: Export quantity of selected agricultural produce from Ghana into the EU



Source: Eurostat, https://ec.europa.eu/eurostat [24 April 2021]

A clear overall downward trend is observable. The weight of exported products fell by 60.3% from 2010 to 2020. When correlated with the slight increase in values over the same period, it is plausible that considerable value added has been achieved. Both datasets (export values and quantities by weight), which have been retrieved from Eurostat, correspond with figures provided by GEPA.

Conclusions: Overall export values for the supported VCs have fallen since 2016/2017 but have increased in the long run, while product quantities have decreased. VC upgrading is not a linear success story. Rather, it is subject to strong external effects, such as world price fluctuations, adverse weather conditions, pests and diseases. In this regard, informants stated that without MOAP the pineapple and citrus sector would have collapsed (Int_8 with private sector, Survey 2). Mango is the emerging market within the horticultural sector that has faced challenges from spreading pests like the fruit fly and more recently bacterial black spot.

Photo 4: Dried mangoes (Source: GIZ MOAP)

New niches and markets have been opened up for citrus and for other vegetables, such as okra and sweet potato (Int_2 with

private sector). The underlying assumptions can be largely confirmed, but the overall (contribution to) impact is not as rosy as the theory suggests. An increase in competitiveness seems plausible for the supported VCs and to a certain extent for the whole horticultural subsector, which benefits from strengthened capacities, services and institutions. However, the horticultural sector is still a relatively small part of the non-traditional exports subsector, whereas other agricultural products, such as manufactured cocoa products, cashew, oil palm, banana and shea, achieve higher turnover and continue to attract government attention. Even though the public sector has bought into horticultural VC development, its efforts and dedication do not appear to be enough to build up stable and systematic competitiveness. The food safety system, which is still far from coherent or integrated, is reactive to serious and urgent SPS issues (Int_3 with other stakeholder). Even though PPRSD more than doubled its workforce from under 200 staff to roughly 500 staff about two years ago, nationwide coverage of plant health services, consistent and effective on-farm inspections, and product traceability from 'farm to fork' are not yet in sight (Int_3 with partner, Int_3 with other stakeholder, Int_8 with private sector). Another example of the public sector's plodding pace is the Ghana Green Label initiative, a voluntary national food safety standard initiated by MoFA and GIZ MOAP in 2011, which did not take off for years. Only recently has it started operating after the governance structure was changed from a public institution into a foundation with joint public-private oversight (Int_7 with partner, Int_5 with GIZ). In conclusion, government authorities still have to become much more agile and dynamic to be effective VC facilitators in the horticultural sector.

One last topic remains to be commented on: the assumption that smallholders might be more competitive in the horticultural sector because of the availability of family labour resources. Not only in Ghana but also elsewhere, the agricultural sector has become increasingly older, sometimes with a mean age of 50 to 60 years. Young people are not as easily mobilised into family labour as they once were. As a result, an increase in labour means increased costs for smallholders (Int_6 with other stakeholder, Foc_dis_2 with farmers). Moreover, participating in a globalised VC at the production level requires many different capacities and assets, including a strong producer organisation to unite forces in order to access markets, cope with risks and negotiate decent conditions.

Table 13: Selected results hypotheses for impact

Results Hypothesis 5 (outcome – impact)	**Quality production and resilience of smallholders:** The application of climate-sensitive GAPs (C1) and the availability of operational agricultural infrastructure (B2) will have positive effects on soil fertility, moisture/water management, etc., which will make smallholders more resilient to weather extremes and lead to increased reliability of yields (R12).
Main assumption	Farmers are/become intrinsically motivated to apply climate-sensitive GAPs and have access to relevant infrastructure.
Risks	Increased market orientation could lead to a reduction in crop diversity in favour of cash crop production, which could lower smallholder resilience in the face of natural disasters (e.g. extreme weather events, plagues and epidemics).
Alternative explanation	Market orientation may increase smallholders' income but at the cost of greater vulnerability to external shocks (e.g. economic crises, volatile international prices and natural disasters).
Confirmed/partly confirmed/not confirmed	Not assessable due to quality/lack of data

Hypothesis 6 (outcome – impact)	**VCD for export competitiveness:** Increased compliance with regulations (B3), growing numbers of producers certified in accordance with sustainability standards (C2), the higher reliability of yields (R12) and a reduced number of quarantine interceptions of imports to the EU (MI5) will lead to increased exports of agricultural products from Ghana to the EU (R13) because more and better agricultural products are being produced that meet the demand in European markets and are able to compete internationally.
Main assumption	Horticultural products are attractive for smallholders because they are labour-intensive and can be produced cost-effectively on small plots. Strengthening the role of the private sector will have a positive influence on the government's sector policies and investments. Successful implementation of inclusive business models (IBMs) will attract additional private investment, which will create more income and job opportunities. Coordinated public and private investments in systematic, strategic VC development and quality production will strengthen the competitiveness of the whole agricultural sector and open up new opportunities for exports.
Risks	The external effect of consumer preferences and world price fluctuations (R14) could have a negative impact on exports from Ghana to the EU (R13) and on the incomes of supported producers (MI2).
Alternative explanation	Increased exports of agricultural products from Ghana are mainly due to direct and indirect subsidies provided by the government and donors, not to the sector's competitiveness.
Confirmed/partly confirmed/not confirmed	Largely confirmed

Impact dimension 2 – Contribution to higher-level (intended) development results/changes – scores **35 out of 40 points**.

Impact dimension 3: Contribution to higher-level (unintended) development results/changes

To what extent can higher-level, unintended development changes (social, economic and environmental dimensions and their interactions, positive and/or negative) be identified/envisaged?

According to the self-assessment, MOAP staff rated the statement 'no project-related (unintended) negative results at impact level have occurred – or if any have, the project responded adequately' at a mean value of 7.2 on a 10-point scale (Survey 1).

Observed unintended negative effects generated by the project were mentioned in the previous section. One consequence is that a potential (last) follow-on project was cancelled. A planned appraisal mission in 2018 was called off by BMZ at short notice and instead used to openly brainstorm a completely new orientation (Int_4 with GIZ).

No evidence was found for any use of the M&E system to observe and discuss potential risks or unintended effects.

Impact dimension 3 – Contribution to higher-level (unintended) development results/changes – scores **20 out of 30 points**.

Methodology for assessing impact

Table 14: Methodology for assessing OECD/DAC criterion: impact

Impact: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Higher-level (intended) development changes/ results	Extent to which the project has contributed to higher-level impacts mentioned in the project proposal: increased production and reliability of yields, increased competitiveness of agricultural sector, increasing exports, rural development, and poverty reduction from income and job opportunities. Extent of improved business environment and private–public dialogue and cooperation. Extent of income and job opportunities for smallholders and the land-poor population, especially women and youth (<35 years old).	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	Availability and quality of monitoring data and additional statistics are uncertain. Collection of additional data is methodologically difficult, especially in a semi-remote situation. (Note: the German DC programme was phased out in 2016; a concrete national strategy for implementing Agenda 2030 is missing.)
Contribution to higher-level (intended) development results/ changes	Hypothesis 5: **VCD for export competitiveness** Hypothesis 6: **Market-orientation, quality production and resilience of smallholders**	**Evaluation design:** Contribution analysis **Empirical methods:** • Document analysis • Interviews • Focus group discussions • Online survey (optional)	Availability and data quality of statistics are uncertain.
Contribution to higher-level (unintended) development results/ changes	Observation of unintended positive and negative impacts, in general and on particularly disadvantaged or vulnerable target groups.	**Evaluation design:** Exploratory design **Empirical methods:** • Document analysis • Interviews • Focus group discussions • Elements of outcome mapping and harvesting	Establishing causalities beyond the attribution gap becomes increasingly speculative.

4.6 Efficiency

This section analyses and assesses the project's efficiency. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see annex).

Summarising assessment and rating of efficiency

Table 15. Rating of OECD/DAC criterion: efficiency

Criterion	Assessment dimension	Score and rating
Efficiency	Production efficiency (resources/outputs)	50 out of 70 points
	Allocation efficiency (resources/outcome)	20 out of 30 points
Efficiency score and rating		Score: **70 out of 100 points** Rating: **Level 3: moderately successful**

The distribution of inputs with regard to the direct target groups was rather well balanced and mirrored the focus on the private sector. However, a set of critical aspects regarding project internal, GIZ internal and partner-related issues must have had a negative effect on efficiency, including the delayed delivery of services. The main critical aspects concerned integrity issues within MOAP, bureaucratic and slow administrative support from GIZ country office and headquarters, and chronic budget limitations on the partner side that constrained operations (Int_4 with GIZ, Survey 1). The scaling-up of outcomes faced challenges at national level (vertical) owing to the lack of political backing. While the replication of best practices was observed at local level, horizontal scaling-up cannot be expected to take place without further support.

In total, the efficiency of the project is rated Level 3: moderately successful, with 70 out of 100 points.

Analysis and assessment of efficiency

Efficiency dimension 1: Production efficiency

Production efficiency describes the transformation of inputs (financial/human/material resources) into outputs. The evaluation assesses (1) whether the resources spent on each output were appropriate for the outputs achieved and (2) the extent to which the outputs could have been maximised with the same resources and under the same framework conditions (maximum principle).

How were the intervention's inputs distributed?

The budget was distributed over the five outputs (and overarching costs) as follows: Output A: 15.8%, output B: 13%, output C: 22.7%, output D: 20.3%, output E: 21.6%, overarching costs: 6.6% (Efficiency Tool 2021). The level of overarching costs was typical and acceptable.

For a further attribution of achieved results at output level, the disaggregation of the budget by outputs was not really helpful. This was due to the weakness of the project design, in particular the circumstance that some of the output indicators were either not suitable or not able to be assessed. Moreover, the five module indicators at outcome level cannot be assigned to the five outputs. For instance, MI5 was primarily accomplished through output A, but output A's direct indicator MI1 was not accomplished. Therefore, the 'follow the money approach' by outputs was extended to the direct target groups and sectors.

Sector (estimated budget share)	Public (~22%)		Private (~72%)		
Direct target group	Public services (PPRSD, DDA)		Farmers	Input dealers, processors, off-takers	Distributers, exporters, (all VC actors)
Output	A	B	C	D	E
Input proportion	15.8%	13%	22.7%	20.3%	21.6%

In the table above, the budget share per output was related to the different direct target groups of the two main sectors being analysed.

Given that the VCD approach has a strong focus on the private sector, the budget share allocated to each sector appears reasonable.

In the surveys conducted by the evaluation team, the project partners (public and private sectors) were asked to rate the extent of the benefit to each of MOAP's direct target groups on a 4-point scale.[9] The following mean values were calculated (Surveys 2 and 3): producers/farmers (3.67), processors (3.42), MoFA/DDA (3.38), off-takers/domestic distributers (3.10), traders/exporters (3.00) and aggregators/intermediaries (2.97) (Surveys 2 and 3). It can be concluded that the distribution of inputs to the direct target groups was rather well balanced.

To what extent have the intervention's inputs (financial, human and material resources) been used economically in relation to the outputs delivered (products, investment goods and services)?

According to the self-assessment, MOAP staff rated the three statements[10] on the project's efficiency at an overall mean value of 7.8 on a 10-point scale (Survey 1).

The following critical issues were mentioned by MOAP staff as key challenges that had a negative effect on the project's efficiency by reducing its effectiveness (Survey 1):

- Project (MOAP): corruption/integrity issues, misunderstanding of some indicators by staff, high turnover of project staff, internal division of project between GIZ and consultancy staff led to poor coordination and a loose team, some contractors did not present deliverables
- GIZ (country office, headquarters): rigid internal bureaucracies, slow and bureaucratic responses, inadequate administrative support to partners on financial agreements/local subsidy contracts
- Partner (MoFA): limited resources on the partner side hindered adequate roll-out of activities owing to budget constraints; inability to support the agricultural extension agents (AEAs) financially to carry out step-down training after MOAP supported the training of trainers; mistrust between project management team and MoFA co-managers.

The above aspects, which have been grouped into three broad areas, are considered rather serious factors that reduced the project's effectiveness and therefore its efficiency.

Were the outputs (products, investment goods and services) produced on time and within the planned time frame?

As for the output indicators, the achieved outputs were produced on time, since they were all programmed for the end of the project. Delays occurred primarily as a result of bureaucratic internal processes and the difficult budget situation of the project's partner (see above).

[9] Rating scale: 1=no benefit at all, 2=little benefit, 3=fair benefit; 4=great benefit

[10] 6.3 Alternative measures and use of instruments were discussed and adopted in order to increase efficiency (8.2); 6.2 The mix and number of instruments used was appropriate and efficient (7.5); 6.1 Resources were used economically in relation to outputs delivered (7.8).

Efficiency dimension 1 – Production efficiency – scores **50 out of 70 points**.

Efficiency dimension 2: Allocation efficiency

Allocation efficiency describes the transformation of inputs into outcomes.

The three evaluation questions[11] for this dimension cannot be answered in the absence of reasonable and comparable alternatives, given the particular project context and circumstances.

However, given the positive results of the MOAP self-assessment on statement 6.3 (8.2 on a 10-point scale),[11] it can be assumed that alternative measures and use of instruments were discussed and adopted in order to increase efficiency (Survey 1).

Any scaling-up of the project's results is considered rather limited because of the lack of political support at macro-level (vertical scaling-up). At local level, horizontal scaling-up is not a self-propelling phenomenon, given that thriving relationships between outgrowers and off-takers require relatively rare conditions, such as strong FBOs, long-term commitment and a willingness and ability of off-takers with market access to invest in order to make a good match (Int_3, 6 with GIZ, Survey 1). Nevertheless, an example of horizontal dispersion was detected: pineapple farmers in Central region formed their own FBO and achieved organic certification after being inspired by the success of their neighbours (Foc_dis_5 with farmers).

Interestingly, indicators at outcome level did not change for MOAP South after two different budget modifications. In 2017, the EU co-financed MOAP North-West was added and MOAP South transferred EUR 1.35 million of BMZ funds to the North-West to cover ineligible costs not provided for by the EU grant (Int_4 with GIZ). Then, at the end of 2019, MOAP South received an additional EUR 2.5 million for a 12-month extension until the end of 2020 (GIZ, 2019a). As a result, the initial project budget of EUR 10.1 million was increased by the remaining amount of EUR 1.15 million without any qualitative or quantitative modification of the outcome indicators.

Efficiency dimension 2 – Allocation efficiency – **scores 20 out of 30 points**.

Methodology for assessing efficiency

Table 16: Methodology for assessing OECD/DAC criterion: efficiency

Efficiency: assessment dimensions	Basis for Assessment	Evaluation design and empirical methods	Data quality and limitations
Production efficiency (Resources/ outputs)	Assessment of planned and actually assigned costs by output, type and partner contribution. Consideration of justified budgetary deviations and modifications. Assessment of potential for cost savings at output level (minimum principle). Assessment/estimation of alternatives for yield/output maximisation (maximum principle, production efficiency).	**Evaluation design:** 'Follow the money' approach combined with the analytical questions from the evaluation matrix. **Empirical methods:** • CPE efficiency tool • Document analysis • Interviews • Focus group discussions	Attribution of budget to outputs was based on estimations. Certain challenges arose when separating the co-financed North-West from MOAP South. KOMP was neither introduced nor implemented.

[11] By what other means and at what cost could the achieved results have been attained? To what extent – compared with alternative designs for the intervention – could the results have been attained more cost-effectively? To what extent – compared with alternative designs for the intervention – could the positive results have been increased using the existing resources?

Efficiency: assessment dimensions	Basis for Assessment	Evaluation design and empirical methods	Data quality and limitations
	Extent to which resources (input-output) were considered and documented during the implementation phase. Assessment of timely delivery of outputs according to project proposal.		Overall data quality assessment: weak
Allocation efficiency (Resources/ outcome)	Assessment/estimation of alternatives for the use of instruments (allocation efficiency). Estimation/qualitative consideration of potential alternatives. Assessment of potential cost savings at outcome level (minimum principle). Extent to which resources (input-outcome) were considered and documented during the implementation phase. Extent to which reflections on scaling-up were realised and implemented.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	Reference project evaluations were not to hand; strong influence of country-specific context limited comparison; there was a risk of speculation and bias. Overall data quality assessment: weak

4.7 Sustainability

This section analyses and assesses the project's sustainability. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see annex).

Summarising assessment and rating of sustainability

Table 17. Rating of OECD/DAC criterion: sustainability

Criterion	Assessment dimension	Score and rating
Sustainability	Capacities of the beneficiaries and stakeholders	10 out of 20 points
	Contribution to supporting sustainable capacities	22 out of 30 points
	Durability of results over time	35 out of 50 points
Sustainability score and rating		Score: **67 out of 100 points** Rating: **Level 3: moderately successful**

The persistence of positive effects created by the project appeared to be a crucial challenge. However, it was also assumed that the recent crisis caused by the Covid-19 pandemic amplified the private sector's rather pessimistic outlook. The public sector in particular was identified as presenting weaknesses due to chronic budget constraints. At the end of the project, 30% of the supported plant clinics are not operational. In addition, smallholder farmers are at risk of being unable to maintain their certifications and GAPs without assistance, especially if their FBO is weak. A similar situation can be assumed for small processors who have neither the cash flow nor the access to finance needed to balance reduced turnovers and profits.

On the other side, a strong focus on the private sector could reduce risks by distributing ownership and commitment among various actors. The project has contributed to increasing sustainability through capacity

development, especially through competency-based training, and the successful facilitation of arrangements between farmers and off-takers. However, it was not possible to detect any systematic exit strategy announced against the background of a 12-month extension and the project's phasing-out.

In total, the sustainability of the project is rated Level 3: moderately successful, with 67 out of 100 points.

Analysis and assessment of sustainability

Sustainability dimension 1: Capacities of the beneficiaries and stakeholders

To what extent do the beneficiaries and stakeholders have the institutional, human and financial resources as well as the willingness (ownership) required to sustain the positive results of the intervention over time? **To what extent do the beneficiaries and stakeholders have the resilience to overcome future risks that could jeopardise the intervention's results?**

Public sector: It has often been mentioned in the report that the public sector has serious difficulties financing operations. PPRSD, for instance, relies on an annual budget of around EUR 70,000 for nationwide operations with an overall staff of roughly 500 personnel. Serious constraints affect needed investments in infrastructure, such as the expansion of offices at exit points and the maintenance of laboratory capacities, not to mention the provision of transport, vehicles and fuel for field officers and the continuous capacity building of staff (Int_3 with partner).

With respect to the operations and maintenance of plant clinics, both of the visited District Departments of Agriculture (DDA) stated that they were operational but that additional funds were needed to extend services to all district areas and improve the follow-up of cases (Int_6, 9 with partner). Since 2017, MOAP had supported the establishment of 66 plant clinics (including 66 trained plant doctors and the same number of tablets), In March 2021, however, only 46 were functional and 20 were not active (Int_3 with partner).

Private sector: For individual farmers, attaining certifications like GlobalG.A.P. individually is far too expensive in most cases. Group certification seems to be the most viable approach. Even so, however, certification and recertification costs pose a serious challenge to many smallholders (Int_ 2 with private sector, Int_3 with GIZ). Moreover, the capacities of FBOs to organise (re-)certification are often so low that they are dependent on assistance (Foc_Dis_3 with GIZ). As mentioned earlier, the support of selected WUAs against the backdrop of an ongoing transition to the participatory management of irrigation infrastructure in Ghana has raised concerns over sustainability (GIZ, 2021).

MOAP 'began by establishing district-level crop-based value chains, but they consolidated them later to establish regional crop-based committees. This was because in many cases district-based committees did not attract a full spectrum of value chain actors' (IFPRI, 2020: 9). At district level, so-called VC interest groups are mainly informal farmer gatherings. By the end of the predecessor module, five regional VCCs fell within the project's focus: in Central region, the VCCs for pineapple and citrus; in Brong Ahafo, the VCCs for maize and mango; and in Volta region, the VCC for vegetables and fruits (GIZ, 2017a: 8). In general, VC coordination mechanisms face challenges related to high transport costs, which have been covered by the project in the past (Int_3 with GIZ). In a regional citrus VCC supported by MOAP, 'many committee members had become apathetic after the organisers stopped offering transport allowances and refreshments at meetings' (IFPRI, 2020: 16). As another example, the Volta Value Chain Cooperative Union (VVCCU) does continue to meet once in a while. However, as most members travel far, they demand coverage of their transport costs, which poses a challenge for the sustainability of the meetings (Int_8 with private sector).

The three VC coordinating mechanisms at national level, the roundtables for mango, pineapple and vegetables, are also unlikely to be sustained by FAGE alone without support. The federation's operations are

basically run by only two people (the first and second vice presidents) who are part-time volunteers. Personal dedication and continuous commitment seem to lie at the heart of the roundtables' success, but years of engagement have led to exhaustion (Int_2 with private sector). On the other hand, unlike other donor projects that implement such mechanisms on their own, MOAP has been successful in strengthening FAGE's ownership of the roundtables (Survey 1).

One last example of a sustainability challenge concerns the Ghana Green Label Secretariat. Even though the establishment of a foundation with public and private-sector board members has been key to finally launching local food safety, it remains to be seen whether the finance strategy of generating revenues for the secretariat through registration and training fees and product label charges will prove successful. MOAP's support for GGL certification and marketing has been crucial, but there is still a need for greater promotion of the label (Int_7 with partner).

Sustainability dimension 1 – Capacities of the beneficiaries and stakeholders – scores **10 out of 20 points.**

Sustainability dimension 2: Contribution to supporting sustainable capacities

To what extent has the intervention contributed to the beneficiaries and stakeholders having the institutional, human and financial resources as well as the willingness (ownership) required to sustain the intervention's positive results over time and to limit the impact of any negative results? To what extent has the intervention contributed to strengthening the resilience of particularly disadvantaged groups?

The project has particularly contributed to building human resources through capacity development, especially competency-based training that ensures sustainable capacity development (Int_6 with GIZ). Farmers, AEAs, processors and off-takers have confirmed this fact (Survey 2, 3, Foc_dis_1–7 with farmers). Another positive effect on sustainability was contributed by the successful facilitation of arrangements between farmers and off-takers. Farmer groups that have established trustworthy, satisfactory relations with processors and off-takers are clearly more resilient not only because of their network and their cooperation system but also because of the institutional capacities that they have gained from interactions in these relationships (Foc_dis_1–7 with farmers).

Unlike other donor projects, MOAP has tried to limit subsidies throughout the implementation, has not paid extra allowances for attendance at training and meetings, and has gradually reduced its contributions to, for example, VCCs (Survey 1, Int_6 with GIZ).

The second change offer led to the definitive phasing-out of MOAP, and additional funds were provided to implement an exit strategy within a 12-month extension of the project (GIZ, 2019a). However, no exit strategy was evident to the evaluation team. Within MOAP's self-assessment, the statement 'the project has developed and implemented an exit strategy, especially with respect to particularly disadvantaged and vulnerable groups' was rated at a mean value of 6.9 on a 10-point scale (Survey 1).

One explanatory factor is the 2020 pandemic, which changed the whole context and affected opportunities to engage with stakeholders. At the request of BMZ, the project engaged in sensitisation and preventive measures against Covid-19 (Int_4 with GIZ).

In the face of a weak state that cannot meet the duties of public services, a private-sector orientation might contribute to reducing the risks to sustainability by integrating a multitude of other actors and raising the likelihood of lasting ownership and commitment.

Sustainability dimension 2 – Contribution to supporting sustainable capacities – scores **22 out of 30 points**.

Sustainability dimension 3: Durability of results over time

How stable is the context in which the intervention operates? To what extent is the durability of the intervention's positive results influenced by the context?

The majority of the supported VCs are linked to export markets. Clearly, demand is highly influenced by consumer preferences and external shocks like the pandemic. In addition to losing market access because of external effects, farmers also face considerable risks on the production side, including pests and diseases, and unfavourable weather conditions, such as rainfall variability, which have negative effects on yields and production quality (Foc_dis_2, 5 with farmers). The risks of dependency on several external factors can be illustrated with an example from the pineapple VC: the shift of European consumer preferences toward the Costa Rican variety MD2 since 2004 proved to be an insurmountable technical challenge for Ghana's smallholders, who were unfamiliar with the intensive practices required for MD2 production and not able to invest in production costs that were three times higher than those for traditionally produced varieties (Smooth Cayenne and Sugarloaf). The pineapple industry suffered severe repercussions. Employment in the sector fell from a high of 10,000 workers to only 3,000 workers by 2015 (IFPRI 2020: 35 f.). Therefore, the associated risks to horticultural exports cannot be underestimated.

As for the national context, MoFA at the political level did not come to terms with MOAP during the implementation, but there are indications that the GoG is at work on improving framework conditions for selected horticultural crops. One indication is the creation of the TCDA at the end of last year. According to an article from Wageningen University, many actors in Ghana are calling for a horticulture development authority. The negative effects of the pandemic could contribute to speeding up the development of such a body (WUR, 2020).

To what extent can the positive results of the intervention be deemed durable?

According to MOAP's self-assessment, the statement 'results are permanent, stable and long-term resilient' was rated at a mean value of only 6.9 on a 10-point scale (Survey 1).

The private sector was even more sceptical when rating the following three statements on a 10-point scale, where 0 = 'do not agree at all' and 10 = 'fully agree' (Survey 3):

- Our company will be able to maintain quality processing techniques without additional assistance: 5.8
- Our company will be able to maintain certifications without the help of the project or the government: 5.6
- The public sector will continue to provide assistance after the project: 2.9

This rather critical assessment is certainly influenced by the difficult situation created by Covid-19. However, it also shows how the resilience of smallholders can be affected suddenly by an external shock: because they have lower income and a general lack of access to finance, farmers are hampered in their purchase of inputs for upcoming growing seasons (WUR, 2020).

Without assistance, this could lead to a vicious cycle that might push horticultural producers toward growing less risky crops. Moreover, the repercussions of any fall in the supply of raw materials on the processing businesses emerging in the subsector cannot be predicted.

In conclusion, high risks of exposure related to relatively low coping capacities lead to considerable vulnerability in the horticultural sector, which needs additional assistance to sustain its achievements.

Sustainability dimension 3 – Durability of results over time – scores **35 out of 50 points**.

Methodology for assessing sustainability

Table 18: Methodology for assessing OECD/DAC criterion: sustainability

Sustainability: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Capacities of the beneficiaries and stakeholders	Extent of institutional, human and financial resources and ownership of partners and target groups to sustain positive results. Examples: maintenance of certification schemes by producers and processors, introduction of public (e.g. plant clinics) and embedded (e.g. training) services and private-sector interest groups (e.g. VC committees). Assessment of coping capacities of partners and target groups to sustain positive results in the face of potential risks.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	As for the assessment of coping capacities that might lead to effective measures in case of potential risks, data quality is weak owing to the uncertainties of hypothetical scenarios.
Contribution to supporting sustainable capacities	Extent to which the project has contributed to improving the institutional, human and financial capacities of partners and target groups to sustain the positive results (documentation of learning experiences, knowledge anchoring in the partner system, exit strategy, follow-on project).	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	No project documentation of an exit strategy is available.
Durability of results over time	Assessment of the context's stability: risks and potentials for long-term stability of results. Plausible synthesis of expected sustainability of effects at outcome and output level.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix; no specific evaluation design was applied. **Empirical methods:** • Document analysis • Interviews • Focus group discussions	As the assessment includes a synthesis of the preceding steps, the average data quality of the assessment cannot be better than moderate.

4.8 Key results and overall rating

Results and ratings reflect the interplay of the predecessor project, the design, the implementation including steering and monitoring, the contributions of the partner and involved stakeholders, and the context and external circumstances. The project has been implemented under difficult conditions, ranging from a not very beneficial project design and a lack of partnership and steering to internal integrity issues and the worldwide Covid-19 pandemic. These were considered to be the main reasons why the overall rating has not reached a higher level of success. The weakest spots were effectiveness and sustainability, where shortcomings were noted in the design, partner contributions and strategic focus. A strength was observed in the impact criterion, where the project was able to build on previous achievements and contribute to the increased competitiveness of the horticultural sector.

As a final remark, the project management of international cooperation in general and the VCD approach (ValueLinks 2.0) in particular has become so complex that it is increasingly challenging to live up to high expectations in such difficult contexts.

Table 19: Rating and score scales

100-point scale (score)	**6-level scale (rating)**
92–100	Level 1: highly successful
81–91	Level 2: successful
67–80	Level 3: moderately successful
50–66	Level 4: moderately unsuccessful
30–49	Level 5: unsuccessful
0–29	Level 6: highly unsuccessful
Overall rating: The criteria of effectiveness, impact and sustainability are knock-out criteria. If one of them is rated at level 4 or lower, the overall rating cannot go beyond level 4 even though the mean score may be higher.	

Table 20. Overall rating of OECD/DAC criteria and assessment dimensions

Evaluation criteria	Dimension	Max	Score	Total (max.100)	Rating
Relevance	Alignment with policies and priorities	30	28	**73**	Level 3: moderately successful
	Alignment with the needs and capacities of the beneficiaries and stakeholders	30	25		
	Appropriateness of the design	20	10		
	Adaptability – response to change	20	10		
Coherence	Internal coherence	50	40	**70**	Level 3: moderately successful
	External coherence	50	30		
Effectiveness	Achievement of the (intended) objectives	30	18	**67**	Level 3: moderately successful
	Contribution to achievement of objectives	30	21		
	Quality of implementation	20	14		
	Unintended results	20	14		
Impact	Higher-level (intended) development changes/results	30	26	**81**	Level 2: successful
	Contribution to higher-level (intended) development results/changes	40	35		
	Contribution to higher-level (unintended) development results/changes	30	20		
Efficiency	Production efficiency	70	50	**70**	Level 3: moderately successful
	Allocation efficiency	30	20		
Sustainability	Capacities of the beneficiaries and stakeholders	20	10	**67**	Level 3: moderately successful
	Contribution to supporting sustainable capacities	30	22		
	Durability of results over time	50	35		
Mean score and overall rating		100	**71**		**Level 3: moderately successful**

5 Conclusions and recommendations

5.1 Key findings and factors of success/failure

Good practice example

Photo 5: Pineapple farmer (Source: GIZ MOAP).

The organic pineapple farmers of two FBOs[12] in Ekumfi District in Central region had been working with MOAP since 2013. They received extensive training in GAPs, soil fertility maintenance, pest and disease control, natural resources conservation, post-harvest management, and farmer business education, record keeping and financial literacy to keep track of all costs. HPW, a Swiss company operating in Ghana since 2005, was engaged by MOAP to provide embedded services (training, input support and pre-financing) to their suppliers through a development partnership with the private sector. In 2015, the farmers became certified organic and have since been able to recertify. In 2016, HPW made a major investment to set up a fruit drying facility in Eastern region, which doubled the drying capacities. The location and investment decisions were apparently influenced heavily by the presence and assistance of the project. The FBOs were also assisted with the purchase of office furniture and equipment, the production of ethylene gas from activated charcoal used for flower induction, and the purchase of a used tractor. Continuous attendance and coaching, for example to build up reserve funds for the maintenance of received equipment, was a key to their success. Recently, MOAP also helped to establish the Ekumfi Cooperative Credit Union, so that members could get access to finance through their own savings. Today, farmers report higher yields and higher, more predictable income, which has been invested to improve their housing and their children's education. Their organisation has grown stronger, so that they are now able to negotiate discounts when purchasing inputs. The two FBOs today sell ethylene gas and provide training to other farmers. They have also served as a role model to encourage others to follow in their footsteps. The success story has been put into writing by a handful of actors: a long-term committed off-taker, champions within FBO leadership, a dedicated, competent AEA, and an enthusiastic agricultural advisor on behalf of the project (Foc_dis_5, 7 with farmers, Int_3, 5, 6 with GIZ, GIZ, 2016a).

Key lessons learned[13]

- **Capacity development**: in particular, farmer training is only successful if farmers have the willingness and (financial) ability to adopt newly introduced practices for improved production. This depends to a large extent on the availability of secure markets. The adoption of GAPs is low where the market is missing or there is a lack of trust between buyers.

[12] Adwindaho Cooperative Organic Pineapple Producers (ACOPPS) and Adwumadzen Mampuntu Organic Pineapple Producers Association (AMOPPA)
[13] Derived primarily from survey 1 with limited contributions from surveys 2 and 3

- **Access to finance**: this key impediment could only be addressed very remotely or indirectly since existing initiatives (e.g. OVCF) target only a small category of larger, more established enterprises. There is a lack of financial products for farmer groups and MSMEs in Ghana.

- **Internal processes**: internal procedural guidelines would have been helpful to create a coherent procedure, e.g. how to plan and implement training and workshops grounded in a competency-based approach; how to conduct employee appraisals; and repeated reflexions on what needs to change, what needs to be done and how changes can be observed (M&E).

- **Cooperation and coordination**: coordination with other GIZ programmes and donors still remains a challenge; public–private dialogue was challenging but worthwhile.

- **Project design and approach**: massive support to the public sector is an outdated approach. Demand and market orientation ensure sustainability. MOAP would have been more successful with a more coherent, more focused, better communicated approach. Indicator formulation must be done with great care to ensure that indicators are realistic.

Success factors[14]

- **Capacity development:** a demand-driven approach to capacity development, not 'one size fits all' mass training in order to achieve 'big numbers' (quantity), while neglecting a quality, competency-based training approach.
- **Project partner**: supportive and appreciative decentralised structures (Regional and District Departments of Agriculture), regional directors of agriculture and VC officers as key technical staff implementing MOAP interventions in the supported regions.
- **Private-sector participation**: a vibrant, committed private sector with young, well-educated entrepreneurs, and an inclusive business model approach with an identification of reliable off-takers for smallholder produce.
- **Relationships**: a strong team and leadership, a cordial and trustworthy working relationship with project partners across the project spectrum, and relationship building through the honouring of commitments.
- **Market trends**: growing international interest in tropical fruits, organic products and sustainable supply chains for export; a growing middle class in Ghana who demand healthy, safe food.
- **Administration**: a less bureaucratic structure for implementation with regard to consulting; availability of equipment and tools required for the work.

Findings regarding 2030 Agenda

The project has contributed specifically to SDG 8 'promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. Based on the project's indicators, the achievements suggest specific contributions to the following targets: 8.1 'sustain per capita economic growth', 8.2 'achieve higher levels of economic productivity', 8.5 'employment and decent work for all women and men', and 8.6 'reduce the proportion of youth not in employment, education or training'.

Universality, shared responsibility and accountability

Responsibility and accountability were not so much shared as they were heavily reliant on GIZ's oversight. Where the systems and structures of other donors or implementing partners (public and private) existed and proved helpful, they were used and some tasks were divided up with other development partners. Monitoring and learning were conducted through a quarterly monitoring report that the project shared with the political partner.

Interplay of economic, environmental and social development

The project had a strong emphasis on economic development. The social dimension was primarily reflected in the creation of job opportunities, particularly for women and young adults, and in the facilitation of inclusive business models. Environmental aspects were considered under capacity development for GAPs and organic standards and to a lesser extent in relation to conservation agriculture, mixed cropping systems and natural resource management. However, social and environmental issues were clearly secondary, since they did not play a dominant role in the project design, monitoring or implementation.

Inclusiveness/leave no one behind

It was clearly understood that 'the main concentration of participants in the value chain come from actor groups with more resources and choices, whereas chronically poor households cannot benefit from the promotion directly, and therefore cannot be the primary target group of value-chain promotion. The often insufficient differentiation of the poorer population strata in the conception of projects and programmes harbours the risk that development cooperation may lose sight of chronically poor people as well as other marginalised groups, since it is assumed that all poor people can potentially be reached' (DEval, 2016: xi).

Findings regarding follow-on project

German DC's support to the agricultural sector has come to an end. A new module, 'Sustainable Employment through Agribusiness' (AgriBiz, PN: 2020-2239.0), started in April 2021 as part of Germany's support to sustainable economic development and employment. AgriBiz is therefore not a follow-on project, but it does continue to support stakeholders such as PPRSD, FAGE and other food processing and trading micro, small and medium-sized enterprises (MSMEs). The evaluation team was only able to review the short project outline. Some lessons learned from MOAP have been transferred to AgriBiz. For example, ambitions to change the political framework have apparently been dropped in favour of an even stronger private-sector orientation. Also, the shift away from production and supply toward processing and marketing is partly understandable. However, there remain challenges for quality production, and the sustainability of positive effects created by MOAP cannot be taken for granted. On the other hand, job creation and employment are already a focus of other German DC initiatives, such as the 'Special Initiative on Training and Job Creation' (SI Jobs) and the 'Employment for Sustainable Development in Africa' (E4D) programme.

5.2 Recommendations

For GIZ's 'Sustainable Employment through Agribusiness'

Make sure to define and focus the project's approach to achieve complementarity with other projects and development and implementing partners. Build up an integrated M&E system that serves not only to attribute effects and render an account of indicator achievement but also to define areas of strategic observation that are actively used for steering and learning. For example, the creation of job opportunities could be assessed more comprehensively, including qualitative criteria, social aspects and long-term employment. Consider actively involving a university, research institute or civil society organisation to assist and accompany the project from an external viewpoint. If this is done, any created knowledge will be shared and available after the end of the project. Make use of the Capacity WORKS toolkit to enhance cooperation management. Finally, continue making efforts to re-establish a constructive, trustworthy relationship with MoFA at the political level.

For the implementing partner, especially the Policy Planning, Monitoring and Evaluation Directorate (PPMED) and the Plant Protection and Regulatory Services Directorate (PPRSD)

Even when the conditions of cooperation agreements are not satisfactory, look for compromises or delegate project coordination. Political settings may change on both sides during a bilateral project and need to be

balanced by the project coordinators. Apart from the DPs, greater systematic collaboration and complementarity across ministries are needed to improve food safety and quality.

Also, efforts should be increased to enhance data, information and knowledge management as well as access. Relevant data were requested but not available or did not appear to be consistent.

Increasing the effectiveness of public services is a major challenge, given limited budgets. Thus, focus on reforms to make efficiency gains that could amplify outcomes. For instance, PPRSD has considerably increased its staff, but continues to face operational constraints, for example in relation to decentralised services. Consider the possibility of collaboration between the four PPRSD divisions that provide services to farmers, so that one officer could deliver the services of several divisions and therefore reduce costs and time. In order to find a way out of the budget dilemma, schemes involving internally generated funds and performance-based salaries could be trialled and implemented.

For GIZ country office/headquarters/sectoral department

With respect to Ghana, request the formulation of a BMZ country and sector strategy to sharpen the approach, coherence and positioning of German DC.

As for VCD projects and approach, BMZ could be asked to engage in policy dialogue to increase inter-ministerial cooperation and the inclusion of the private sector. Also, further development of innovative financial services, including microfinance instruments, should be carried out (DEval, 2016).

Consider options to strengthen the assistance of project managers and project teams to live up to the increasing complexity and administrative burden of managing cooperation projects. Examples include the timely and lean administration of instruments for private-sector promotion (e.g. matching funds, financing and local subsidy agreements) and the use of management instruments such as M&E tools (e.g. theory of change, results model, M&E system) and Capacity WORKS.

Integrity issues regarding project personnel are another relevant topic. Assistance provided by headquarters should aim to reduce the burden on project managers as much as possible.

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Annex: Evaluation matrix

OECD-DAC Criterion Relevance - Is the intervention doing the right things? (max. 100 points)
The 'relevance' criterion focuses on the intervention's design. It refers to the extent to which the objectives and design of a development intervention are consistent with the (global, country and institution-specific) requirements, needs, priorities and policies of beneficiaries and stakeholders (individuals, groups, organisations and development partners). It also identifies the ability of the intervention's design to adapt to a change in circumstances. 'Relevance' is assessed in relation to 1) the **time of the intervention design**[1] and 2) from **today's perspective**[2].

Assessment dimensions	**Filter - project type**	**Evaluation questions**	**Clarifications**	**Basis for assessment / Evaluation indicators** *(e.g. module objective/programme indicators, selected hypotheses, or more generally a definition of the aspects to be used for evaluation)*	**Evaluation design and empirical methods** *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop, online survey, etc.)*	**Data sources** *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	**Data quality and limitations** *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	**Data quality assessment** (weak, moderate, good, strong)
Alignment with policies and priorities	Standard	To what extent are the intervention's objectives aligned with the (global, regional and country-specific) policies and priorities of the BMZ and of the beneficiaries and stakeholders and other (development) partners? To what extent do they take account of the relevant political and institutional environment?	• Orientation at BMZ country strategies and BMZ sector concepts • Strategic reference framework for the project (e.g. national strategies including the national implementation strategy for Agenda 2030, regional and international strategies, sectoral and cross-sectoral change strategies, in bilateral projects especially partner strategies, internal analytical framework e.g. safeguards and gender[4] • Orientation of the project design at the (national) objectives of Agenda 2030 • Project contribution to certain Sustainable Development Goals (SDGs) • Explanation of a hierarchy of the different policies, priorities (especially in case of contradictions)	MOAP objectives and strategies are mirrored within available documents and strategies of BMZ, GOG and partner (MoFA).	Design: not specific Methods: document analysis, interviews	Strategic documents: National Agriculture Investment Plan: Investing for Food and Jobs (IFJ) 2018-2021; Food and Agricultural Sector Policy II (FASDEP); flagship programmes such as Planting for Food and Jobs (PFJ); BMZ's Marshall Plan for Africa; G20 Compact with Africa Interviews with project partner MoFA	Limitations: according to MOAP team leader there are no active BMZ strategies for Ghana in place; official documents of GoG on the implementation of the Agenda 2030 are not available	moderate
	and Fragility	To what extent was the (conflict) **context** of the project adequately analysed and considered for the project concept?	• Key documents: (Integrated) Peace and Conflict Assessment (I)PCA, Safeguard Conflict and Context Sensitivity documents	Consideration of context within reports and interviews with respect to project appraisal.	Design: not specific Methods: document analysis, interviews	project documents, interviews with GIZ staff, partners and stakeholders	Context is a very ample term, its analysis is limited	moderate
	and SV/GV	To what extent does the project complement bilateral or regional projects? To what extent	• Please use CPE factsheet on SV / GV / IZR	Consideration of other GIZ programmes within reports and interviews with	Design: not specific Methods: document analysis, interviews	project documents, interviews with GIZ staff (MOAP and other programmes)	project documents on relevant bilateral and regional programmes or	moderate

		does it complement other global projects?		respect to project appraisal.			relevant SV, GV and IZR were not provided	
	and SV/GV	To what extent is the project geared towards solving a global challenge that cannot only be effectively addressed bilaterally/ regionally?	• Please use CPE factsheet on SV / GV / IZR	does not apply since project was not targeting a global but a national challenge				
Alignment with the needs and capacities of the beneficiaries and stakeholders	Standard	To what extent are the intervention's objectives aligned with the development needs and capacities of the beneficiaries and stakeholders involved (individuals, groups and organisations)?	• Also: consideration of stakeholders such as civil society and private sector in the design of the measure	Stakeholders and target groups confirm importance/priority of improving quality in agriculture as well as the usefulness of activities they participated in.	Design: not specific Methods: document analysis, interviews	project documents, interviews and focus group discussions with target groups and final beneficiaries		good
	and Fragility	How were deescalating factors/ connectors[5] as well as escalating factors/ dividers[6] in the project context identified and considered for the project concept (please list the factors)?[7]	• e.g. see column I and II of the (Integrated) Peace and Conflict Assessment	does not apply since project was not implemented in a conflict context (no PCA necessary)				
	and Fragility	To what extent were potential (security) risks for (GIZ) staff, partners, target groups/final beneficiaries identified and considered?		does not apply since project was not implemented in a conflict context (no PCA necessary)				
	Standard	To what extent are the intervention's objectives geared to the needs and capacities of particularly disadvantaged and vulnerable beneficiaries and stakeholders (individuals, groups and organisations)? With respect to groups, a differentiation can be made by age, income, gender, ethnicity, etc. ?	• Reaching particularly disadvantaged groups (in terms of Leave No One Behind, LNOB) • Consideration of potential for human rights and gender aspects • Consideration of identified risks	Contributions made towards improving the living conditions of smallholders and rural poor, especially women and young people (<35 years old) (see also effectives: outcome indicators 2 and 3).	Design: Contribution analysis Methods: document analysis, interviews, focus group discussions	project documents (M&E documents, gender analysis), interviews and group discussions	M&E documentation of outcome indicator 2 (income generation) is weak; primary data collection of changes in income is a challenge in terms of methodology and resources	weak
Appropriateness of the design[3]	Standard	To what extent is the intervention's design appropriate and realistic (in terms of technical, organisational and financial aspects)?	• Realistic project goal from today's perspective and in view of the available resources (time, finances, partner capacities) • Consideration of potential changes in the framework conditions • Dealing with the complexity of framework conditions and	Revision of the projects intervention design (results model and matrix) indicates functionality in terms of technical, organisational and financial aspects.	Design: not specific Methods: document analysis, interviews	project documents, interviews with GIZ staff, partners and experts	assessment is partially subjective (interpretation of appropriate and realistic)	moderate

			strategic reference frameworks and with possible overloading • Strategic focusing					
	Standard	To what extent is the intervention's design sufficiently precise and plausible (in terms of the verifiability und traceability of the system of objectives and the underlying assumptions)?	Assessment of the (current) results model and results hypotheses (Theory of Change, ToC) of the actual project logic: • Adequacy of activities, instruments and outputs in relation to the project objective to be achieved • Plausibility of the underlying results hypotheses • Clear definition and plausibility of the selected system boundary (sphere of responsibility) • Appropriate consideration of potential influences of other donors/ organisations outside the project's sphere of responsibility • completeness and plausibility of assumptions and risks for the project results • How well is co-financing (if any) integrated into the overall concept of the project and what added value could be generated for the ToC/project design?	Revision of the projects intervention design (results model and matrix), including outputs, assumptions and risks, indicates plausibility and functionality.	Design: not specific Methods: document analysis, interviews	project documents, interviews with GIZ staff (MOAP and other programmes)	assessment is partially subjective (interpretation of precise and plausible)	moderate
	Standard	To what extent is the intervention's design based on a holistic approach to sustainable development (interaction of the social, environmental and economic dimensions of sustainability)?	• Presentation of the interactions (synergies/trade-offs) of the intervention with other sectors in the project design - also with regard to the sustainability dimensions in terms of Agenda 2030 (economic, environmental and social development)	The extent to which MOAP with its market-centred value chain approach integrated the environmental and social dimension of sustainable development.	Design: not specific Methods: document analysis, interviews, focus group discussions	project documents (M&E documents, gender analysis), interviews and group discussions with GIZ, partners and target groups	documentation of social and environmental aspects is not very solid also due to indicator formulation and project focus	moderate
Adaptability – response to change	Standard	To what extent has the intervention responded to changes in the environment over time (risks and potentials)?	• Reaction to changes during project including change offers (e.g. local, national, international, sectoral changes, including state-of-the-art sectoral know-how)	Adaptations made due to changes in the environment documented by reports and indicated in interviews adaptations made due to changes in the environment documented by reports, change offers, M&E documentation and	Design: not specific Methods: document analysis, interviews	project documents (change offers, progress reports), Interviews with MOAP staff	Limitation: the term 'changes in the environment' is very broad. Its analysis can only be an approximation	moderate

				indicated in interviews.				

(1) The 'time of the intervention design' is the point in time when the offer/most recent modification offer was approved.

(2) In relation to the current standards, knowledge and framework conditions.

(3) The design of an intervention is usually assessed by evaluating its intervention logic. The intervention logic depicts the system of objectives used by an intervention. It maps out the systematic relationships between the individual results levels. At the time an intervention is designed, the intervention logic, in the form of a logical model, is described in the offer for the intervention both as a narrative and generally also on the basis of a results framework. The model is reviewed at the start of an evaluation and adjusted to reflect current knowledge. Comprehensive (re)constructed intervention logics are also known as 'theories of change'. In GIZ the 'project design' encompasses project objective (outcome) and the respective theory of change (ToC) with outputs, activities, TC-instruments and especially the results hypotheses as well as the implementation strategy (e.g. methodological approach, Capacity Development (CD) strategy). In GIZ the Theory of Change is described by the GIZ results model as graphic illustration and the narrative results hypotheses.

(4) In the GIZ Safeguards and Gender system risks are assessed before project start regarding following aspects: gender, conflict, human rights, environment and climate. For the topics gender and human rights not only risks but also potentials are assessed. Before introducing the new safeguard system in 2016 GIZ used to examine these aspects in separate checks.

(5) Deescalating factors/ connectors: e.g. peace-promoting actors and institutions, structural changes, peace-promoting norms and behaviour. For more details on 'connectors' see: GIZ (2007): 'Peace and Conflict Assessment (PCA). Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 55/135.

(6) Escalating factors/ dividers: e.g. destructive institutions, structures, norms and behaviour. For more details on 'dividers' see: GIZ (2007): 'Peace and Conflict Assessment (PCA). Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 135.

(7) All projects in fragile contexts, projects with FS1 or FS2 markers and all transitional aid projects have to weaken escalating factors/dividers and have to mitigate risks in the context of conflict, fragility and violence. Projects with FS1 or FS2 markers should also consider how to strengthen deescalating factors/ connectors and how to address peace needs in its project objective/sub-objective.

OECD-DAC Criterion Coherence - How well does the intervention fit? (max. 100 points)

This criterion refers to the intervention's compatibility with other interventions in a country, sector or institution as well as with international norms and standards. **Internal coherence** addresses the synergies and division of tasks between the intervention and other interventions of German development cooperation and also the intervention's consistency with the relevant international norms and standards to which German development cooperation adheres. **External coherence** considers the intervention's complementarity, harmonisation and coordination with the interventions of other partners, donors and international organisations. The 'coherence' criterion relates both to the intervention's design as well as to the results it achieves.

Assessment dimensions	**Filter - project type**	**Evaluation questions**	**Clarifications**	**Basis for assessment / Evaluation indicators** *(e.g. Modulziel-/Programmindikatoren, ausgewählte Hypothesen, oder allgemeiner eine Definition der Aspekte, die zur Bewertung herangezogen werden)*	**Evaluation design and empirical methods** *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop, online survey, etc.)*	**Data sources** *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	**Data quality and limitations** *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	**Data quality assessment** *(weak, moderate, good, strong)*
Internal coherence	Standard	Within German development cooperation, to what extent is the intervention **designed and implemented** (in a sector, country, region or globally) in a **complementary** manner, based on the **division of tasks**?	• Also analysis of whether the project takes the necessary steps to fully realize synergies within German development cooperation	Extent to which MOAP's design and implementation reflect complementarity and division of tasks within German DC (GIZ, KfW, PTB).	Design: not specific Methods: document analysis, interviews	project progress reports; interviews with German DC staff (GIZ, KfW, PTB) and other experts (external perspective)		good

	Standard	To what extent are the **instruments** of German development cooperation (Technical and Financial Cooperation) meaningfully **interlinked** within the intervention (in terms of both design and implementation)? Are **synergies** leveraged?	• if applicable, also take into account projects of different German ministries	Extent to which the interlinkage of GIZ and KfW instruments created synergies.	Design: not specific Methods: document analysis, interviews	project progress reports; interviews with German DC staff (GIZ, KfW) and other experts (external perspective)		good
	Standard	To what extent is the intervention **consistent with international and national norms and standards** to which German development cooperation is committed (e.g. human rights)?		Extent to which the intervention is consistent with international and national norms and standards to which German DC is committed.	Design: not specific Methods: document analysis, interviews	project progress reports; interviews with German DC staff (GIZ, KfW, PTB), partners and other experts (external perspective)	Consistency with international standards and norms can be difficult to assess since these are sometimes formulated in a 'soft' manner and thus subject to interpretation.	moderate
External coherence	Standard	To what extent does the intervention complement and **support the partner's own efforts** (principle of subsidiarity)?		Extent to which MOAP complements and supports the partner's own effort.	Design: not specific Methods: document analysis, interviews	project progress reports; interviews with German DC staff (GIZ, KfW, PTB), partner (MoFA) and other experts (external perspective)		good
	Standard	To what extent has the intervention's design and implementation been **coordinated with other donors**' activities?	• Also: To what extent could synergies be achieved through co-financing (where available) with other bilateral and multilateral donors and organisations and how did co-financing contribute to improved donor coordination?	Extent of MOAP's coordination with other donors in the sector.	Design: not specific Methods: document analysis, interviews	joint sector reviews of the Agricultural Sector Working Group (ASWG); interviews with German DC, partner, other donors and stakeholders		good
	Standard	To what extent has the intervention's design been designed to **use existing systems and structures** (of partners/other donors/international organisations) for implementing its activities? To what extent are these systems and structures used?	• Also analysis of whether the project is taking the necessary steps to fully realize synergies with interventions of other donors at the impact level	Extent to which MOAP used existing systems and structures as well as coordinated with other donors to create synergies.	Design: not specific Methods: document analysis, interviews	joint sector reviews of the Agricultural Sector Working Group (ASWG); interviews with German DC, partner, other donors and stakeholders	There is a large number of donors active in Ghana, especially in the agricultural sector. Limitations do exist in terms of identifying all synergy potential between different donors and programmes.	moderate
	Standard	To what extent are **common systems** (together with partners/other donors/international organisations) **used for M&E**, learning and accountability?		Extent to which common systems of M&E, learning and accountability are used together with partners and other donors.	Design: not specific Methods: document analysis, interviews	joint sector reviews of the Agricultural Sector Working Group (ASWG); interviews with German DC, partner, other donors and stakeholders		good

OECD-DAC Criterion Effectiveness - Is the intervention achieving its objectives? (max. 100 points)
'Effectiveness' refers to the extent to which the intervention has achieved, or is expected to achieve, its objectives (at outcome level), including any differential results across beneficiary and stakeholder groups. It examines the achievement of objectives in terms of the direct, short-term and medium term results.

Assessment dimensions	**Filter - project type**	**Evaluation questions**	**Clarifications**	**Basis for assessment / Evaluation indicators** *(e.g. Modulziel-/Programmindikatoren, ausgewählte Hypothesen, oder allgemeiner eine Definition der Aspekte, die zur Bewertung herangezogen werden)*	**Evaluation design and empirical methods** *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop, online survey, etc.)*	**Data sources** *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	**Data quality and limitations** *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	**Data quality assessment** *(weak, moderate, good, strong)*
Achievement of the (intended) objectives[1]	Standard	To what extent has the intervention **achieved,** or is the intervention expected to achieve, the **(intended) objectives as originally planned** (or as modified to cater for changes in the environment)?	• Assessment based on the **project objective indicators** (agreed with BMZ) • Check whether more specific or additional indicators are needed to adequately reflect the project objective	Extent of outcome indicator achievement (1-5).	Design: not specific Methods: document analysis, interviews, focus group discussions, online survey (optional)	monitoring data on outcome indicators 1-5; publicly available statistics and information; interviews and focus group discussions with target groups; optional: online survey on farmers and new employees of producers and processors	quality of monitoring data varies: especially for indicator MI2 (income) data is incomplete and data quality cannot be assessed at this stage; for indicator MI5 (EU quarantine interceptions) the figures for 2020 are not yet published but expected to be upcoming.	moderate
	and Fragility	For projects with FS1 or FS2 markers: To what extent was the project able to strengthen deescalating factors/ connectors?[2, 4]		does not apply since project was not implemented in a conflict context (FS-0 marker)				
Contribution to achievement of objectives	Standard	To what extent have the intervention's **outputs been delivered as originally planned** (or as modified to cater for changes in the environment)?		Extent of output indicator achievement (A-E)	Design: not specific Methods: document analysis, interviews, focus group discussions	monitoring data on output indicators A-E; publicly available statistics and information; interviews and focus group discussions with target groups; optional: online survey on available public and private services at district level (infrastructure, quality inspections, GAP training, input advisory) through questioning of (1) providers (public+private) and (2) clients (smallholders)	monitoring data are available but methods of data collection are not indicated > data quality is difficult to assess	moderate
	Standard	To what extent have the delivered **outputs** and increased capacities been **used and equal access**		Extent of equal access to and use of delivered outputs by partners, stakeholders and target	Design: not specific Methods: document analysis, interviews, focus group discussions	monitoring data on output indicators A-E; interviews and focus	requirements go beyond the scope of project monitoring, difficult access to data, high risk	weak

		(e.g. in terms of physical, non-discriminatory and affordable access) guaranteed?		groups (e.g. selection process/targeting).		group discussions with target groups;	of bias (methodological challenge)	
	Standard	To what extent has the intervention contributed to the **achievement of objectives**?	• Assessment based on the activities, TC-instruments and outputs of the project (contribution-analysis as focus of this assessment dimension and minimum standard, see annotated reports) • What would have happened without the project? (usually qualitative reflection)	Extent of MOAP's contribution to the achievement of objectives (especially: quality in the agricultural sector). Estimation/qualitative reflection of the counterfactual.	Design: contribution analysis Methods: document analysis, interviews, focus group discussions, online survey (optional)	monitoring data on output indicators A-E; operational plans; interviews and focus group discussions with target groups; optional: online survey on contribution to effects at the level of producers, processor, buyers and traders/exporters	available MOAP monitoring data for output indicators B2, B3 and C1 is weak, not available or methodologically questionable; availability of official statistics is uncertain; primary data collection in a semi-remote situation is limited	moderate
	Standard	To what extent has the intervention contributed to the achievement of objectives at the level of the **intended beneficiaries**?		Extent to which MOAP has contributed to improving the living conditions (income and job opportunities) of smallholders/farmers and land-poor rural population, especially women and the youth (<35 years old).	Design: contribution analysis Methods: document analysis, interviews, focus group discussions	monitoring data and project reports, gender study; publicly available statistics and information; interviews and focus group discussions with target groups;	Quality of monitoring data varies: especially for indicator 2 (income) the data is poor; indicator 3 (created jobs) has a very low qualitative dimension, direct access to beneficiaries of indicator 3 is difficult	weak
	Standard	To what extent has the intervention contributed to the achievement of objectives at the level of **particularly disadvantaged or vulnerable groups** of beneficiaries and stakeholders? (These may be broken down by age, income, gender, ethnicity, etc.)?		Extent to which MOAP's intervention in value chain development has had a positive effect on particularly disadvantaged or vulnerable target groups (trickle-down effect).	Design: contribution analysis Methods: document analysis, interviews, focus group discussions	available studies (e.g. IFPRI), expert interviews, participatory methods (PRA) with rural communities	not enough secondary sources, primary data collection methodologically difficult (access to informants and high risk of bias)	weak
	Standard	Which **internal factors** (technical, organisational or financial) were decisive for achievement/non-achievement of the intervention's intended objectives?	• Internal factors = within the project's sphere of responsibility / system boundary. The project is implemented jointly by GIZ and the official partner(s).	Relevance of internal factors of success or failure (within system boundaries).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good
	Standard	Which **external factors** were decisive for achievement/non-achievement of the intervention's intended objectives (taking into account the anticipated risks)?	• External factors = outside the project's sphere of responsibility / system boundary. The project is implemented jointly by GIZ and the official partner(s).	Relevance of external factors of success or failure (beyond system boundaries).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good

Quality of implementation	Standard	What assessment can be made of the **quality of steering and implementation** of the intervention in terms of the achievement of objectives? What assessment can be made of the quality of steering and implementation of, and **participation** in, the intervention by the **partner/executing agency**?	Capacity Works considerations: - **Results-oriented monitoring (RoM / WoM)** is established and used, e.g. for evidence-based decisions, risk management. Data are disaggregated by gender and marginalized groups. unintended positive and negative results are monitored. Conflict-sensitive monitoring and explicit risk-safety monitoring are particularly important for projects in fragile contexts. - A bindingly communicated **strategy** agreed with the partners is pursued - Involvement and **cooperation** of all relevant actors (including partners, civil society, private sector) - **Steering**: decisions influencing the project's results are made in time and evidence-informed. Decision processes are transparent. - **Processes**: Relevant change processes are anchored in the cooperation system; project-internal processes are established and regularly reflected and optimised. - **Learning and innovation**: There is a learning and innovation-friendly work culture that promotes the exchange of experience; learning processes are established; context-specific adjustments are possible	Degree of the quality of steering and implementation of MOAP (including establishment and use of WoM and Capacity WORKS success factors 1-joint strategy, 2-cooperation system, 3-steering structure, 4-processes, 5-learning and innovation).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good
Unintended results	Standard	To what extent can **unintended positive/negative direct results** (social, economic, environmental and among vulnerable beneficiary	• The focus is on the outcome level, but for the analysis the unintended effects can also be included on the output level	Observation of unintended positive and negative results.	Design: exploratory evaluation Methods: document analysis, interviews, focus group discussions, elements of outcome mapping and harvesting	project reports, interviews, focus group discussions with MOAP staff, partners, target groups and experts (external perspective)		moderate

	groups) be observed/anticipated?						
and Fragility	To what extent was the project able to ensure that escalating factors/ dividers[3] have not been strengthened (indirectly) by the project[4]? Has the project unintentionally (indirectly) supported violent or 'dividing' actors?		does not apply since project was not implemented in a conflict context (FS-0 marker)				
Standard	What potential **benefits/risks arise from the positive/negative unintended results**? What assessment can be made of them?	• also check whether the risks were already mentioned and monitored in the design phase	Assessment of benefits/risks arising from observable unintended positive/negative results.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good
and Fragility	To what extent have risks and unintended-negative results in the context of conflict, fragility and violence[5] been monitored (context/conflict-sensitive monitoring) in a systematic way?		does not apply since project was not implemented in a conflict context (FS-0 marker)				
Standard	How has the **intervention responded to** the potential benefits/risks of the positive/negative **unintended results**?	• Check if positive results at the outcome level have been monitored and set in value	Extent to which MOAP responded to the benefits/risks arising from observable unintended positive/negative results.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good

(1) The first and second assessment dimensions are interrelated: If the project's contribution to achieving the objective is small (2nd assessment dimension), this must also be taken into account when evaluating the first assessment dimension.

(2) Deescalating factors/ connectors: e.g. peace-promoting actors and institutions, structural changes, peace-promoting norms and behaviour. For more details on 'connectors' see: GIZ (2007): 'Peace and Conflict Assessment (PCA). Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 55/135.

(3) Escalating factors/ dividers: e.g. destructive institutions, structures, norms and behaviour. For more details on 'dividers' see: GIZ (2007): 'Peace and Conflict Assessment (PCA). Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 135.

(4) All projects in fragile contexts, projects with FS1 or FS2 markers and all transitional aid projects have to weaken escalating factors/dividers and have to mitigate risks in the context of conflict, fragility and violence. Projects with FS1 or FS2 markers should also consider how to strengthen deescalating factors/ connectors and how to address peace needs in its project objective/sub-objective?

(5) Risks in the context of conflict, fragility and violence: e.g. contextual (e.g. political instability, violence, economic crises, migration/refugee flows, drought, etc.), institutional (e.g. weak partner capacity, fiduciary risks, corruption, staff turnover, investment risks) and personnel (murder, robbery, kidnapping, medical care, etc.). For more details see: GIZ (2014): 'Context- and conflict-sensitive results-based monitoring system (RBM). Supplement to: The 'Guidelines on designing and using a results-based monitoring system (RBM) system.', p.27 and 28.

OECD-DAC Criterion Impact (higher-level development results) - What difference does the intervention make? (max. 100 points)
Based on recognisable higher-level development changes (at impact level), the criterion of 'higher level development results (at impact level)' relates to the extent to which the intervention has already produced significant positive or negative, intended or unintended results at the overarching level (contributions to the observed changes), or is expected to do so in the future. This includes any differential results across different stakeholders and beneficiaries. This criterion refers to the results of the development intervention.

Assessment dimensions	Filter - project type	Evaluation questions	Clarifications	Basis for assessment / Evaluation indicators *(e.g. Modulziel-/Programmindikatoren, ausgewählte Hypothesen, oder allgemeiner eine Definition der Aspekte, die zur Bewertung herangezogen werden)*	Evaluation design and empirical methods *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop, online survey, etc.)*	Data sources *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	Data quality and limitations *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	Data quality assessment *(weak, moderate, good, strong)*
Higher-level (intended) development changes[1]	Standard	To what extent can the **higher-level development changes** (social, economic and environmental dimensions and the interactions between them) to which the intervention will/is designed to contribute be identified/foreseen)? (Specify time frame where possible.)	• Consider module proposal for suggested impact and program objective indicators (program proposal), if it is not an individual measure • Potential basis for assessment: program objective indicators, identifiers, connection to the national strategy for implementing 2030 Agenda, connection to SDGs	Extent to which the project has contributed to higher level impacts mentioned in the project proposal: increased production and reliability of yields, increased competitiveness of agricultural sector, increasing exports, rural development and poverty reduction due to income and job opportunities. (note: the German DC programme phased-out in 2016; a concrete national strategy for implementing Agenda 2030 is missing)	Design: not specific Methods: document analysis, interviews, focus group discussions	publicly available statistics and information, studies, document analysis, interviews and focus group discussions with MOAP staff, partners and target groups	data availability and quality uncertain/difficult; establishing causalities beyond the attribution gap becomes increasingly speculative	weak
	IZR	To what extent have the IZR criteria contributed to strengthening overarching development results?	• Please use CPE factsheet on SV / GV / IZR	does not apply				
	Standard	To what extent can the higher-level development changes (social, economic, environmental dimensions and the interactions between them) be identified/foreseen at the level of the **intended beneficiaries**? (Specify time frame where possible.)		Extent of improved business environment and private-public dialogue and cooperation.	Design: not specific Methods: document analysis, interviews, focus group discussions	interviews and focus group discussions with MOAP staff, partners and target groups		good
	Standard	To what extent can higher-level development changes to which the intervention will/is designed to contribute be identified/foreseen at the level of **particularly disadvantaged/vulnerable groups of beneficiaries and stakeholders**? (These may be broken down by age, income, gender, ethnicity, etc.)		Extent of income and job opportunities for smallholders and land-poor population, especially women and youth (<35 years old).	Design: not specific Methods: document analysis, interviews, focus group discussions	available studies (e.g. IFPRI), expert interviews, participatory methods (PRA) with rural communities; monitoring data and project reports, gender study; publicly available statistics and information	not enough secondary sources; monitoring data not available or if so data quality could be questionable; primary data collection methodologically difficult (access to informants and high risk of bias), especially in a semi-remote situation	weak

		(Specify time frame where possible.)						
Contribution to higher-level (intended) development changes	Standard	To what extent has the intervention actually **contributed to the identified and/or foreseeable higher level development changes** (social, economic, environmental dimensions and their interactions, taking into account political stability) that it was designed to bring about?	• Contribution analysis (evaluation design) as minimum standard and focus of this assessment dimension, further approaches are possible and welcome, see also annotated reports • Evaluation of the project's contribution to impacts based on an analysis of the results hypotheses from outcome to impact level	Extent of MOAP's contribution to the achievement of envisaged impacts (increased production and reliability of yields, increased competitiveness of agricultural sector, increasing exports, rural development and poverty reduction). (note: complementing impact dimension 1, question 1)	Design: contribution analysis Methods: document analysis, interviews, focus group discussions, online survey (optional)	monitoring data and project reports, gender study; publicly available statistics and information; interviews and focus group discussions with target groups	availability and data quality of statistics uncertain	moderate
	Standard	To what extent has the intervention **achieved its intended** (original and, where applicable, revised) **development objectives**?	• This question can already be assessed in Dimension 1 Question 1, the contribution to impact is assessed in Dimension 2, Question 1	See dimension 1, question 1	will be included in contribution analysis (see dimension 2, question 1)			
	Standard	To what extent has the intervention achieved its (original and, where applicable, revised) development objectives at the level of the **intended beneficiaries**?		See dimension 1, question 3	will be included in contribution analysis (see dimension 2, question 1)			
	Standard	To what extent has the intervention contributed to higher-level development changes/changes in the lives of **particularly disadvantaged or vulnerable groups of beneficiaries and stakeholders** that it was designed to bring about? (These may be broken down by age, income, gender, ethnicity, etc.).		See dimension 1, question 4	will be included in contribution analysis (see dimension 2, question 1)			
	Standard	Which **internal factors** (technical, organisational or financial) were decisive for achievement/non-achievement of the intervention's intended development objectives?	• Internal factors = within the project's sphere of responsibility / system boundary. The project is implemented jointly by GIZ and the official partner(s)	Relevance of internal factors of success or failure (within system boundaries). (note: sequenced with effectiveness dimension 2, question 6)	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)	establishing causalities beyond the attribution gap becomes increasingly speculative	moderate

Standard	Which **external factors** were decisive for the achievement/non-achievement of the intervention's intended development objectives?	• External factors = outside the project's sphere of responsibility / system boundary. The project is implemented jointly by GIZ and the official partner(s). • Take into account the activities of other actors or other policies, framework conditions, other policy areas, strategies or interests (German ministries, bilateral and multilateral development partners)	Relevance of external factors of success or failure (beyond system boundaries). (note: sequenced with effectiveness dimension 2, question 7)	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)	establishing causalities beyond the attribution gap becomes increasingly speculative	moderate
Standard	To what extent has the intervention achieved **structural or institutional changes** (e.g. for organisations, systems and regulations)?		Extent to which MOAP contributed to structural or institutional changes: policy and regulatory framework for quality production, public services at local level, private sector associations and networks, public-private dialogue and cooperation in the agricultural sector.				
Standard	To what extent did the **intervention serve as a model** and/or achieve **broad-based impact**?	• Scaling-up is a consciously designed process to anchor changes in organisations and cooperation systems (e.g. concepts, approaches, methods) to generate broad impact • There is vertical scaling-up, horizontal scaling-up, functional scaling-up or a combination of these[2] • also analyse possible potential and reasons for not exploiting it	Assessment of MOAP's scaling-up potential: vertical, horizontal and functional - including reasons for not exploiting it.				
IZR	To what extent has the project made an **innovative contribution** (or a contribution to innovation)? Which innovations have been tested in different regional contexts? How are the innovations **evaluated by which partners**?	• Please use CPE factsheet on SV / GV / IZR	Assessment of MOAP's contributions to innovation and the perspective of partners towards it (e.g. plant clinics at PPRSD).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners and experts (external perspective)		good
Standard	How would the situation have developed without the intervention?	• usually qualitative reflection, quantitative approaches welcome	Estimation/qualitative reflection of the counterfactual. (note: sequenced with effectiveness dimension 2, question 3)	Design: exploratory evaluation Methods: document analysis, interviews, focus group discussions, elements of	project reports, interviews, focus group discussions with MOAP staff, partners, target groups and experts (external perspective)		moderate

					outcome mapping and harvesting			
Contribution to higher-level (unintended) development changes	Standard	To what extent can higher-level, **unintended development changes** (social, economic and environmental dimensions and their interactions, taking into account political stability) be identified/foreseen? (Specify time frame where possible.)		Observation of unintended positive impacts (note: included in impact dimension 3, question 3)	Design: exploratory evaluation Methods: document analysis, interviews, focus group discussions, elements of outcome mapping and harvesting	project reports, interviews, focus group discussions with MOAP staff, partners, target groups and experts (external perspective)		moderate
	and Fragility	To what extent did the project have (unintended) **negative or escalating effects** on the conflict or the context of fragility (e.g. conflict dynamics, violence, legitimacy of state and non-state actors/institutions)? To what extent did the project have positive or deescalating effects on the conflict or the context of fragility (e.g. conflict dynamics, violence, legitimacy of state and non-state actors/institutions)?		does not apply, project was not implemented in a conflict context (FS-0 marker)				
	Standard	To what extent has the intervention brought about foreseeable/identifiable **unintended (positive and/or negative) higher-level development results**?	• Analyse whether the risks were already known in the design phase • Check how the assessment of risks in connection with (unintended) negative or (not formally agreed) positive results at the impact level in the monitoring system has been carried out (e.g. use of 'compass') • measures taken to avoid or counteract the risks/ negative effects/ trade-offs[3] • Determine relevant framework conditions for negative results and the project's reaction to them • Examine to what extent potential (not formally	Observation of unintended positive and negative impacts (notes: sequenced with effectiveness dimension 4, question 1; including impact dimension 3, question 1.)	Design: exploratory evaluation Methods: document analysis, interviews, focus group discussions, elements of outcome mapping and harvesting	project reports, interviews, focus group discussions with MOAP staff, partners, target groups and experts (external perspective)		moderate

			agreed) positive results and synergies between the environmental, economic and social development dimensions have been monitored and exploited					
	Standard	To what extent has the intervention contributed to foreseeable/identifiable **unintended** (positive and/or negative) higher-level development results at the level of **particularly disadvantaged or vulnerable groups of beneficiaries** and stakeholders? (These may be broken down by age, income, gender, ethnicity, etc.)		Extent to which MOAP's intervention in value chain development has had unintended positive/negative impacts on particularly disadvantaged or vulnerable target groups. (note: sequenced with and complementary to effectiveness dimension 2, question 5)	Design: exploratory evaluation Methods: document analysis, interviews, focus group discussions, elements of outcome mapping and harvesting	available studies (e.g. IFPRI), expert interviews, participatory methods (PRA) with rural communities	not enough secondary sources	moderate

(1) The first and second assessment dimensions are interrelated: If the project's contribution to achieving the objective is small (2nd assessment dimension), this must also be taken into account when evaluating the first assessment dimension.

(2) See GIZ 2016 'Guidelines on scaling-up for programme managers (AV) and planning officers'

(3) Risks, negative effects and trade-offs are separate aspects that should be discussed individually at this point.

OECD-DAC Criterion Efficiency - How well are resources being used? (max. 100 points)

This criterion describes the extent to which the intervention delivers results in an economic and timely way (relationship between input and output, outcome and impact level). The evaluation dimension '**production efficiency**' refers to the appropriateness of the relationship between inputs and outputs. The evaluation dimension '**allocation efficiency**' refers to the appropriateness of the relationship between the inputs and the results achieved (project/development objective; outcome/impact level) by the intervention. The 'efficiency' criterion relates both to the intervention's design and implementation and to the results it achieves.

Assessment dimensions	**Filter - project type**	**Evaluation questions**	**Clarifications**	**Basis for assessment / Evaluation indicators** (*e.g. Modulziel-/Programmindikatoren, ausgewählte Hypothesen, oder allgemeiner eine Definition der Aspekte, die zur Bewertung herangezogen werden)*	**Evaluation design and empirical methods** *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop, online survey, etc.)*	**Data sources** *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	**Data quality and limitations** *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	**Data quality assessment** *(weak, moderate, good, strong)*
Production efficiency	Standard	How are the intervention's **inputs** (financial, human and material resources) **distributed** (e.g. by instruments, sectors, sub-interventions, taking into account the cost	• Description of the data: Costs per output, type of costs, agreed and provided partner contributions • Description of the deviations between	Assessment of planned and actually assigned costs per output, type and partner contribution. Consideration of justified budgetary deviations and modifications.	Design: not specific Methods: document analysis, interviews, focus group discussions	Planned costs: project proposal (incl. Annex estimation of costs), change offers Actual costs: project progress reports, cost commitment report,	Relevant data have not yet been provided by end of the inception phase (01/2021) but is expected to be upcoming; solid assignment of costs to	weak

		contributions of partners/executing agencies/other beneficiaries and stakeholders etc.)?	original planned costs and actual costs (with comprehensible justification, changes are certainly desirable for increased efficiency)			Excel sheet assigning working-months of staff to outputs	outputs is expected to present challenges since (1) output design was not functional to implementation; (2) budgeting and financial monitoring was back then handled more flexibly compared to today.	
	Standard	To what extent have the intervention's **inputs** (financial, human and material resources) been **used economically** in relation to the **outputs delivered** (products, investment goods and services)? If possible, refer to data from other evaluations in a region or sector, for instance.	• Use of 'Efficiency tool' including instructions and use of the follow-the-money approach as evaluation design (may be combined with other high-quality approaches) • Output level: Analysis of approaches and activities as well as TC instruments (personnel instruments, financing, materials and equipment)[1] compared to possible alternatives with a focus on the **minimum principle** (use of comparative data if available) • The project is oriented on internal or external benchmarks in order to achieve its effects economically • Regular reflection of the resources used by the project with focus on economically use of resources and cost risks • The overarching costs of the project are in an appropriate proportion to the costs of the outputs	Assessment of potential of cost savings at output level (minimum principle)	Design: follow-the-money approach Methods: CPE efficiency tool, interviews with MOAP staff	Other comparable project evaluations as potential alternative	Reference project evaluations not at hand Relevant data have not yet been provided by end of the inception phase (01/2021) but is expected to be upcoming; solid assignment of costs to outputs is expected to present challenges since (1) output design was not functional to implementation; (2) budgeting and financial monitoring was back then handled more flexibly compared to today.	weak

		Standard	To what extent could the intervention's **outputs** (products, investment goods and services) have been **increased through the alternative use of inputs** (financial, human and material resources)? If possible, refer to data from other evaluations of a region or sector, for instance. (If applicable, this question adds a complementary perspective*) * This case is always applicable in the technical cooperation (TC), please answer the question bindingly	• Use of 'Efficiency tool' including instructions and use of the follow-the-money approach as evaluation design (may be combined with other high-quality approaches) • Output level: Analysis of approaches and activities as well as TC instruments (personnel instruments, financing, materials and equipment)[1] compared to **possible alternatives with focus on output maximization** (use of comparative data if available) • Analysis of alternative options for allocating resources and shifts between outputs for output maximisation • saved resources can and should be used to maximise outputs • **Reflection of the resources** during the design phase and regularly during the implementation of the project with focus on output maximisation (with comprehensible justification, changes are certainly desirable for increased efficiency) • 'maximising outputs' means with the same resources, under the same conditions and with the same or better quality	Assessment/estimation of alternatives towards yield/output maximisation (maximum principle, production efficiency). Extent to which reflection of resources (input-output) during the implementation phase was realised and documented.	Design: follow-the-money approach Methods: CPE efficiency tool, interviews with MOAP staff		Relevant data have not yet been provided by end of the inception phase (01/2021) but is expected to be upcoming; solid assignment of costs to outputs is expected to present challenges since (1) output design was not functional to implementation; (2) budgeting and financial monitoring was back then handled more flexibly compared to today.	weak
		Standard	Were the **outputs** (products, investment goods and services) **produced on time** and within the planned time frame?		Assessment of timely delivery of outputs according to project proposal.	Design: not specific Methods: document analysis, interviews, focus group discussions	project progress reports, M&E documents		good
	Allocation efficiency	Standard	By **what other means and at what cost** could the results achieved (higher-level project objective) have been attained?		Assessment /estimation of alternatives towards different use of instruments (allocation efficiency). Estimation/qualitative reflection of potential alternatives.	Design: not specific Methods: document analysis, interviews, focus group discussions	Other comparable project evaluations as potential alternative; Interviews and group discussions with MOAP staff, partners and experts (external perspective)	Reference project evaluations not at hand; strong influence of country-specific context reduces comparation; risk of speculation and bias	weak

	Standard	To what extent – compared with alternative designs for the intervention – could the **results have been attained more cost-effectively**?	• **Outcome level**: Analysis of approaches and activities as well as TC-instruments in comparison to possible alternatives with focus on **minimum principle** (use of comparative data if available) • **Regular reflection** in the project of the input-outcome relation and alternatives as well as cost risks • The **partner contributions** are proportionate to the costs for the outcome of the project	Assessment of potential of cost savings at outcome level (minimum principle) Assessment/estimation of more cost-effective alternatives (minimum principle, production efficiency). Extent to which reflection of resources (input-outcome) during the implementation phase were realised and documented. Assessment of actual proportion of partner contributions to the cost of outcomes.	Design: not specific Methods: document analysis, interviews, focus group discussions	Other comparable project evaluations as potential alternative; Interviews and group discussions with MOAP staff, partners and experts (external perspective)	Reference project evaluations not at hand; strong influence of country-specific context reduces comparation; risk of speculation and bias	weak
	Standard	To what extent – compared with alternative designs for the intervention – could the positive **results have been increased** using the existing resources? (If applicable, this question adds a complementary perspective*) * This case is always applicable in the technical cooperation (TC), please answer the question bindingly	• **Outcome level**: Analysis of applied approaches and activities as well as TC-instruments compared to possible alternatives with focus on **maximizing the outcome** (real comparison if available) • The project manages its resources between the outputs in such a way that the maximum effects in terms of the module objective are achieved • Regular reflection in the project of the input-outcome relation and alternatives • **Reflection and realization of possibilities for scaling-up** • If additional funds (e.g. co-financing) have been raised: Effects on input-outcome ratio (e.g. via economies of scale) and the ratio of administrative costs to total costs • **Losses in efficiency due to insufficient coordination** and complementarity within German DC are sufficiently **avoided**	Assessment of potential of yield/outcome maximisation (maximum principle, production efficiency) Assessment/estimation of more effective alternatives (maximum principle, production efficiency). Extent to which reflection on scaling-up were realised and implemented. Assessment of MOAP's coordination efforts within German DC (linked with coherence dimension 1, questions 1 and 2).	Design: not specific Methods: document analysis, interviews, focus group discussions	Other comparable project evaluations as potential alternative; Interviews and group discussions with MOAP staff, partners and experts (external perspective)	Reference project evaluations not at hand; strong influence of country-specific context reduces comparation; risk of speculation and bias	weak

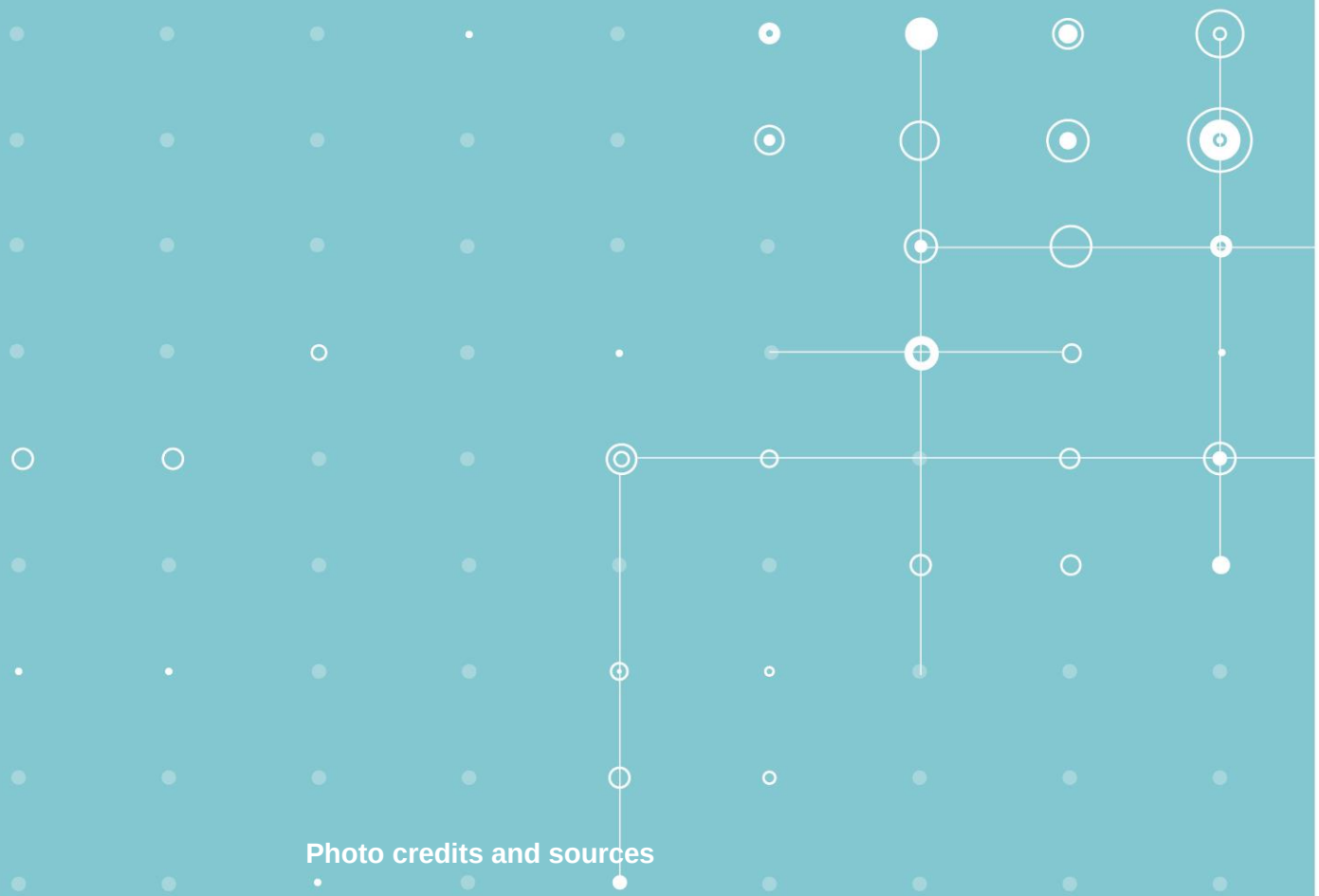
(1) see GIZ 2015: 'Integration of TC Instruments – Key Elements', based on BMZ 2014: Handbuch der bilateralen TZ Verfahrensinformation Nr. VI0362014 'Eckpunkte zur Instrumentenintegration'

OECD-DAC Criterion Sustainability - Will the benefits last? (max. 100 points)
The 'sustainability' criterion relates to continued long-term benefits (at the outcome and impact level) or the probability of continued long-term benefits – taking into account observed or foreseeable risks – over time, particularly after assistance has ended.

Assessment dimensions	**Filter - project type**	**Evaluation questions**	**Clarifications**	**Basis for assessment / Evaluation indicators** *(e.g. Modulziel-/Programmindikatoren, ausgewählte Hypothesen, oder allgemeiner eine Definition der Aspekte, die zur Bewertung herangezogen werden)*	**Evaluation design and empirical methods** *(Design: e.g. contribution analysis, follow-the-money approach) (Methods: e.g. interviews, focus group discussions, document analysis, project/partner monitoring system, workshop*, online survey, etc.)	**Data sources** *(e.g. list of relevant documents, interviews with stakeholder category XY, specific data, specific monitoring data, specific workshop(s), etc.)*	**Data quality and limitations** *(Description of limitations, assessment of data quality: poor, moderate, good, strong)*	**Data quality assessment** *(weak, moderate, good, strong)*
Capacities of the beneficiaries and stakeholders	Standard	To what extent do the **beneficiaries and stakeholders** (individuals, groups and organisations, partners and executing agencies) have the **institutional, human and financial resources** as well as the **willingness** (ownership) **required to sustain** the positive results of the intervention over time (once assistance has drawn to a close)?	• Transitional Development Assistance (TDA) projects primarily address final beneficiaries, whose resilience to crises and recurring shocks is to be strengthened. The focus for TDA projects is thus often on the resilience of final beneficiaries and/or at least the continuity of the measure (see explanation in dimension 3) (clarification in the inception phase of the evaluation).	Extent of institutional, human and financial resources and ownership of partners and target groups to sustain positive results. Examples: maintenance of certification schemes by producers and processors, of jointly managed infrastructure at district level, of introduced public (e.g. plant clinics) and embedded (e.g. training) services, of private sector interest groups (e.g. VC committees).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)		good
	Standard	To what extent do the beneficiaries and stakeholders (individuals, groups and organisations, partners and executing agencies) have the **resilience to overcome future risks** that could jeopardise the intervention's results?		Assessment of coping capacities of partners and target groups to sustain positive results in the face of potential risks.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)	Estimated anticipation of (1) potential risks and (2) reactions of stakeholders based on their (3) potential capacities becomes increasingly speculative.	weak

	Contribution to supporting sustainable capacities	Standard	To what extent has the **intervention contributed** to the beneficiaries and stakeholders (individuals, groups and organisations, partners and executing agencies) having the institutional, human and financial resources as well as the willingness (ownership) required to sustain the intervention's positive results over time and to limit the impact of any negative results?	• Analysis of the preparation and documentation of **learning experiences** • Description of the **anchoring** of contents, approaches, methods and concepts **in the partner system** • Reference to **exit strategy** of the project • If there is a **follow-on project**, check to what extent the results of the evaluated project are taken up; the anchoring of the effects in the partner's organisation should be pursued independently of a follow-on project, since sustainability should be achieved even without donor funds • Transitional Development Assistance (TDA) projects primarily address final beneficiaries, whose resilience to crises and recurring shocks is to be strengthened. The focus for TDA projects is thus often on the resilience of final beneficiaries and/or at least the continuity of the measure (see explanation in dimension 3) (clarification in the inception phase of the evaluation).	Extent to which the project has contributed to improve institutional, human and financial capacities of partners and target groups to sustain the positive results (documentation of learning experiences, knowledge anchoring in the partner system, exit strategy, follow-on project).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)		good	
		Standard	To what extent has the intervention **contributed to strengthening the resilience** of the beneficiaries and stakeholders (individuals, groups and organisations, partners and executing agencies)?		Extent to which the project has contributed to improve coping capacities of partners and target groups to sustain the positive results in the face of risks.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)	Estimated anticipation of (1) potential risks and (2) reactions of stakeholders based on their (3) potential capacities (4) developed with contribution of the project becomes increasingly speculative.	weak	
		Standard	To what extent has the intervention contributed to strengthening the resilience of **particularly disadvantaged groups**? (These may be broken down by age, income, gender, ethnicity, etc.)		Extent to which a specific exit strategy was developed and implemented to strengthen capacities of farmers and land-poor population, especially women and youth (<35 years old), to sustain positive results.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)		moderate	

				(Consideration that follow-on project will not work at the production level any more).				
Durability of results over time	Standard	**How stable is** the **context** in which the intervention operates?		Assessment of the context's stability (political, economic, environmental, socio-cultural).	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)	Context is a complex phenomenon. Here only a rapid assessment based on expert opinion and apparent trends can be done which reduces its quality.	moderate
	Standard	To what extent is the **durability** of the intervention's positive results **influenced by** the **context**?	• Consideration of **risks and potentials for the long-term stability** of the results and description of the reaction of the project to these	Synthesis of context analysis: risks and potentials for long-term stability of results.	Design: not specific Methods: document analysis, interviews, focus group discussions	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)	see above	moderate
	Standard	To what extent can the **positive (and any negative) results** of the intervention be **deemed durable**?	• Consideration of the extent to which **continued use of the results** by partners and beneficiaries **can be foreseen** • Reference to conditions and their **influence on the durability, longevity and resilience of the effects** (outcome and impact) • In the case of projects in the field of Transitional Development Assistance (TDA), at least the continuity of the measure must be examined: To what extent will services or results be continued in future projects (of GIZ or other donors/organisations) or their sustainability ensured? (Clarification in the inception phase)	Plausible synthesis of expected sustainability of effects on outcome and output level.	Design: not specific Methods: document analysis, interviews, focus group discussions, analysis of previous steps of the assessment of sustainability	project reports, interviews with MOAP staff, partners, target groups and experts (external perspective)	As it integrates results from all the other questions responded within the assessment of sustainability, the quality of the assessment is moderate.	moderate



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