FP103

Promotion of Climate-Friendly Cooking: Kenya and Senegal

Kenya, Senegal

April 2026

Final Evaluation Report

This report presents the Final Evaluation of the Green Climate Fund (GCF)-funded project “Promotion of Climate-Friendly Cooking: Kenya and Senegal”. The evaluation was independently commissioned by the Accredited Entity (AE), Gesellschaft für Internationale Zusammenarbeit (GIZ), and submitted to GCF. GCF assumes no responsibility for the accuracy of the information in this report.

KNOWING WHAT WORKS

Central project evaluation

Promotion of Climate-Friendly Cooking: Kenya and Senegal, Project number 2019.2349.9, FP103

Final Evaluation Report

On behalf of GIZ by Josef Seitz (Global21 Consulting), Dr Bell D.N. Okello (ETC Consulting Ltd) and Matar Sylla

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Abbreviations

BAU	Business-as-usual
BMZ	German Federal Ministry for Economic Cooperation and Development
CCA	Clean Cooking Alliance
CCAK	Clean Cooking Association Kenya
CERER	Centre d'Etudes et de Recherches sur les Énergies Renouvelables
CO2eq	Carbon dioxide equivalent
CPE	Central Project Evaluation
CSO	Civil Society Organisation
DAC	Development Assistance Committee
DeKUT	Dedan Kimathi University of Technology Kenya
E4I	Energy for impact
EARF	Energy Access Relief Facility
EE	Executing entity
EnDev	Energising Development
EPRA	Kenyan Energy and Petroleum Regulatory Authority
E&S	Environmental and social
ESA	Environmental and social assessment
ESMAP	World Bank's Energy Sector Management Assistance Programme
FGD	Focus group discussion
FI	Finance institution
FP	Funding proposal
GAP	Gender Action Plan
GCF	Green Climate Fund
GHG	Greenhouse gases
GIE	Groupement d'intérêt écomonique (group with common economic interest)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GoK	Government of Kenya
GoS	Government of Senegal
ICS	Improved cook stove

IMF	International Monetary Fund
KES	Kenyan shilling
LME	Last mile entrepreneurs
LPG	Liquefied petroleum gas
M&E	Monitoring & evaluation
MEPM	Ministère de l'Energie, du Pétrole et des Mines
METE	Ministère de l'Environnement et de la Transition Écologique du Sénégal
MoEP	Ministry of Energy and Petroleum
MRV	Monitoring, reporting and verification
MSME	Micro, small and medium-sized enterprises
NDA	National designated authority
NDCs	Nationally determined contributions
NITA	National Industrial Training Authority
NGO	Non-governmental organisation
ODM	Online data management
OECD	Organisation for Economic Co-operation and Development
PCA	Peace and Conflict Assessment
POI	Project outcome indicator
PMF	Mitigation and adaptation performance measurement framework
REREC	Rural Electrification and Renewable Energy Corporation
RMF	Results management framework
SACCO	Savings and Credit Cooperative Society (Kenya)
SDG	Sustainable Development Goal
SME	Small and medium-sized enterprise
TC	Technical cooperation
TDA	Transitional Development Assistance
ToC	Theory of change
TVET	Technical and vocational education and training
TVETA	Technical and Vocational Education and Training Authority
UNFCCC	United Nations Framework Convention on Climate Change

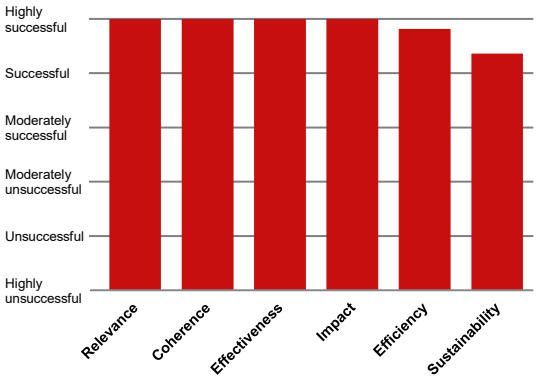
Executive summary

Project title	Promotion of Climate-Friendly Cooking: Kenya and Senegal
Country/region/global	Kenya and Senegal
Sector and creditor reporting system code	23183 – Energy Savings and Efficiency (75%) 32130 – Development of Small and Medium-Sized Enterprises (25%)
Project number	BMZ: PN 2019.2349.9; GCF: FP103
Commissioning party/co-financier	German Federal Ministry for Economic Cooperation and Development (BMZ), Green Climate Fund (GCF)
Lead executing agency/partner organisation(s)	Kenya: Ministry of Energy and Petroleum (MoEP); The National Treasury and Economic Planning of Kenya as the National Designated Authority (NDA), Kenya. Senegal: *Ministère de l'Energie, du Pétrole et des Mines (*MEPM); *Ministère de l'Environnement et de la Transition écologique* (METE) (NDA Senegal)
Project value	EUR 53,615,040, including EUR 38,360,000 from GCF, EUR 12,780,000 from BMZ and indirectly up to EUR 3,000,000 from partner organisations
Project term	December 2019 – March 2026

Objectives of the project

The project, Promotion of Climate-Friendly Cooking, was a contribution of the Green Climate Fund (GCF) and Germany aiming to foster broad-based, sustainable market growth for improved, climate-friendly cooking technologies in order to contribute to the climate mitigation targets of Kenya and Senegal. It was expected to achieve this by accelerating the growth, transformation and professionalisation of the improved cooking stove (ICS) market to reduce usage of biomass for cooking and thus greenhouse gas (GHG emissions.

Overall rating: Highly successful (93/100)



Context of the project

Solid biomass, primarily fuelwood (firewood and charcoal), accounts for over 15% of global energy consumption, contributing significantly to CO2 emissions, estimated at 1.9% to 2.3% of global greenhouse gas emissions. Replacing traditional open fires with ICS presents a significant mitigation opportunity. In Kenya, about 70% of households still rely on biomass for cooking, particularly in rural areas, which directly contributes to deforestation, indoor air pollution, and health risks such as respiratory diseases. The government of Kenya, in particular the Ministry of Energy and Petroleum (MoEP), is working towards a full transition to clean cooking solutions and integrates clean cooking into its energy and environmental policies, in particular through the Energy Act (2019), the National Energy Policy and the National Cooking Transition Strategy. Senegal also heavily depends on solid fuels for cooking, accounting for 45% of the final energy used by Senegalese households – in rural areas even for 82%. Senegal's government has set up a legal framework to promote clean cooking solutions, including ICS. The Ministry of Energy, Petroleum and Mining and the Ministry of Environment and Ecological Transition are leading the charge on these policies.

ICSs support sustainable development by preserving forests and biodiversity, minimising health risks from smoke exposure, alleviating the burden on women and children in fuelwood collection, lowering household energy costs for low-income communities, enhancing efficiency in cooking and, creating employment and business opportunities.

Brief description of the project

The project was structured into three outputs, specifically two national-level outputs (Kenya and Senegal) and a global output. **Outputs 1 and 2** aimed at accelerating the market development for climate-friendly cooking technologies in Kenya (output 1) and Senegal (output 2). To this end, the project carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including producers, distributers, installers, chambers, authorities and finance institutions on the supply side as well as consumers on the demand side. Selected ICS producers would be capacitated through capacity development measures, professionalisation kits and investment packages for professional producers leading to the professionalisation of the ICS production. Strengthened capacities of finance institutions (FI) would result in a facilitated access to market-based finance for business class producers of ICS. These results would then lead to an increased production of ICS. Additionally, the capacitation of last mile entrepreneurs (and women groups in the case of Senegal) in distribution and retail would lead to an expansion of distribution and retail chains. Moreover, the raised awareness of consumers and increased participation of other stakeholders, such as metal sheet producers, transport sector, village heads or community health promoters in Kenya in the ICS sector, would lead to increased sales of ICS. Additionally, the project improved the sector coordination, regulatory framework and quality standards leading to the creation of an enabling market environment. These results together would accelerate the market development for climate-friendly cooking technologies in both countries, which would contribute to achieving their national climate mitigation targets.

Output 3 aimed at improving the knowledge on climate-friendly cooking technologies and their contribution to Nationally Determined Contributions (NDC). This 'global component' of the project tackled the challenge to replicate the results achieved in Kenya and Senegal in other countries. To this end, it collected and compiled data generated at national level, with particular attention to gathering knowledge and evidence of the climate change benefits and impacts of the ICS sector in the form of GHG emission reductions. The project results in Kenya and Senegal were then expected to be used to develop knowledge products on ICS.

Table: Project objective/areas of intervention

Project objective	Broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal
Output 1	Accelerated market development for climate-friendly cooking technologies in Kenya
Output 2	Accelerated market development for climate-friendly cooking technologies in Senegal
Output 3	Improved knowledge on climate-friendly cooking technologies and their contribution to NDC

Assessment according to DAC criteria

Relevance

A review of project documents and donor strategies, coupled with findings from interviews with various stakeholders found the project to be well aligned with the policies and priorities of the donors. The project aligned fully with the strategies of GCF on climate change, Paris Agreement and BMZ strategy. It was very well aligned with the global development community's goals focused on reducing GHG emissions, especially carbon dioxide, which is a central Pillar of the Paris Agreement. Biomass is used as the main source of cooking energy by the majority of households in both Kenya (55% to 75%) and Senegal (45%). The ICS project promoted stove technologies that beneficiaries and stakeholders found to be more efficient (less cooking time), use less wood (by between 30% to 66%), have less smoke, are cleaner (less dirty, less ash), and safer (no fire accidents reported), and save them money (they buy less firewood). The project was well aligned with SDGs 3, 5, 7, 13 and 15. The interventions were relevant, demand-driven, and well within the capacities of beneficiaries, confirming strong alignment between project design, stakeholder needs and national energy transition goals. The project also adapted effectively to global and local shocks. By recalibrating interventions, embedding

resilience, and innovating in training and production systems, it sustained progress in the ICS value chain and reinforced the long-term resilience of the clean cooking sector in both Kenya and Senegal.

Coherence

The ICS project implemented in Kenya and Senegal was one the largest commitments to support the respective countries attain their NDC, and the first to do so using a market-oriented system through professionalisation of the value chain of the most used cooking stoves. At the donor level, the project showed strong coherence with BMZ strategies and frameworks in both countries e.g. BMZ's Development Policy 2030 and the Marshall Plan with Africa. The GCF and BMZ have aligned climate goals, making project implementation smooth and supporting key German cooperation themes. The ICS project directly supported BMZ's strategy Responsibility for Our Planet – Climate and Energy, focusing on climate change mitigation and energy access. By reducing emissions from household cooking, it contributed to BMZ's broader climate portfolio and the Paris Agreement's 1.5°C goal. The ICS project complemented other German development interventions in Kenya and Senegal by aligning with BMZ's climate and energy priorities, building on Energising Development's (EnDev's) clean cooking work, and dovetailing with GCF-funded programmes. It strengthened Germany's broader portfolio by professionalising stove producers, embedding clean cooking in national strategies, and linking to initiatives on climate mitigation, energy access and job creation. Internationally, the ICS project complemented Germany's engagement with platforms such as the GCF, the Clean Cooking Alliance, Sustainable Energy for All (SE4All), the World Bank/ESMAP programme, and the Africa-EU Energy Partnership. By applying GCF principles of transformational change results-based financing, market development, and inclusiveness the project strengthened Germany's credibility as a partner driving systemic energy transitions. It also advanced BMZ's cross-cutting themes of good governance, economic development, health and just energy transition, ensuring coherence across bilateral, regional and global levels. The project has improved Senegalese and Kenyan public officers' perceptions of German cooperation, led to new requests and responsibilities for BMZ and GIZ, and increased interest in clean cooking solutions.

Effectiveness

Regarding the achievement of the (intended) objectives, the evaluation revealed that from 2020 until June 2025, 4 million ICS were sold in the two countries representing a total reduction of GHG emissions of 5,238,349 tonnes of carbon dioxide equivalent (t CO2eq) since the start of the project. Compared to the target value of 6.47 million t CO2eq, the corresponding indicator has been achieved by 81%. However, as the GHG calculation methodology was changed in 2023 without adapting the corresponding indicator, the reduction of GHG emissions would be 7.644 million t CO2eq by applying the former methodology. The indicator is, therefore, considered fully achieved. The evaluation also found evidence that 8,030 additional jobs were created, out of which 4,553 jobs were for women (57%). The corresponding indicator is fully achieved. Additionally, the evaluation demonstrated that 20,140,401 people including 10,176,506 women had improved access to low-emission energy sources. The corresponding indicator has also been fully achieved. In terms of the project's contribution to achievement of objectives, the evaluation confirmed that the increase of production and distribution fostered ICS sales and, therefore, clearly accelerated the market development for climate-friendly cooking technologies which contributed to achieve national climate mitigation targets in Kenya and Senegal. The project experiences and knowledge products developed by the project were requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector. The evaluation also found that the quality of project implementation was very high. Moreover, the evaluation identified several positive and some minor negative unintended results at output and outcome level.

Table: Achievement of the project's objective indicators

Indicator	%
Reduction of GHG in the cooking energy sector	100
Number of new jobs created in the ICS sector	100
Number of individuals (males and females) with improved access to low-emission cooking energy sources	100

Impact

In both countries, Senegal and Kenya, there is significant progress in achieving their goals in climate action (SDG 13), but they still face significant challenges regarding the achievement of the other Sustainable Development Goals (SDGs), namely SDG 3 (healthy lives), SDG 5 (gender equality), SDG 7 (access to energy) and SDG 15 (forests and biodiversity). The evaluation demonstrated that, as a consequence of the project activities, more than 10 million women had improved access to low-emission cooking energy sources. The project also contributed to women's economic empowerment by strengthening their business capacities and increasing their revenues. Moreover, the increased sales of ICS had positive impacts on the livelihood of women by reducing air pollution due to cooking smoke exposure and time needed for firewood collection and cooking tasks. In addition, reduced fuel consumption by 70%led to monetary savings. The evaluation also found that the project clearly laid the foundation for the replication of the project results and that there is a high probability that these results will be replicated in other countries. Furthermore, the project served as a model by successfully demonstrating that fostering a market-based approach at large scale is feasible.

Efficiency

The evaluation showed that the project demonstrated a good level of production efficiency. Its mix of instruments was marked by a high number of experts, which is comprehensible considering the complexity of the project. Remarkably, all staff in Kenya were national experts. The personnel costs were considered to be balanced, especially in view of the fact that all indicators have been fully achieved. Financing instruments, processed mainly through partner organisations, were successfully used for the outreach to the entrepreneurs and the population. Procurement costs for material purchased for beneficiaries and costs for human capacity development measures were considered realistic. Compared to the originally projected costs, most costs stayed within a reasonable deviation, but several relevant deviations were identified, in particular costs for external experts and other costs. Regarding the costs per output, the vast majority of the total budget has been spent on implementing the activities in Kenya (output 1) and Senegal (output 2), which realistically reflects the activities to achieve the results foreseen in the two countries. For the global component (output 3), a relatively small proportion of the budget was spent mainly for monitoring, reporting and knowledge-management tasks. The share of overarching costs for general tasks, such as administrative services, backstopping, coordination and other project tasks, was very low. The assessment of the project's allocation efficiency revealed that the GIZ-based implementation strategy was preferable to a consultancy-based one as it was based on the experiences, results and existing cooperation structure of the EnDev programme implemented by GIZ. The project also leveraged funds through partner contributions from the governments and implementing partners of Kenya and Senegal. However, at the moment of the evaluation, the partner contributions in Senegal were actually lower than foreseen. The partner contributions will probably still increase until the end of the project. Moreover, the project combined funds from two donor organisations, which also increased the project's efficiency.

Sustainability

Sustainability of the ICS project was strong across all three dimensions. Beneficiaries and stakeholders now possess the technical, entrepreneurial, and institutional capacities to sustain outcomes (Dimension 1), reinforced by the project's significant contributions in training, mechanisation, market development, and policy

support (Dimension 2). Results such as reduced GHG emissions, job creation, and professionalisation of the ICS ecosystem are durable and expected to strengthen beyond the project period (Dimension 3). While ICS remain an intermediate technology and not fully clean, demand in rural areas is projected to remain high for the next decades, ensuring continued impact even as cleaner solutions gradually expand. Risks such as financing constraints, resource availability, and policy shifts exist, but the resilience and adaptability of actors provide confidence in long-term sustainability.

Overall rating

With an overall score of 93 out of 100 points, the project 'Promotion of Climate-Friendly Cooking' in Kenya and Senegal received an overall rating of level 1 (highly successful). The evaluation team found the project to be highly relevant and coherent. It was also highly successful in achieving its results and in creating impact. In terms of its efficiency and sustainability of its results, the project was considered as successful.

The main reasons for the project's success lay in the already well-established implementation and cooperation structure of GIZ and the use of experiences obtained through the EnDev project as basis for the project design. In addition, the partner governments highly appreciated the project results making a clear and substantial contribution to their national climate change targets. The project's market and performance-based approach allowed to select the most performant private actors, while its participatory approach brought together all actors of the ICS sector. Finally, the combined financing from two donor organisations (GCF, BMZ) and the project partners has created very strong synergies. The strong political commitment of the governments was also decisive for the project's success.

Table: Rating of OECD DAC evaluation criteria

Criteria	Score (Max. 100)	Rating 1 (highly successful) to 6 (highly unsuccessful)	Criteria	Score (Max. 100)	Rating 1 (highly successful) to 6 (highly unsuccessful)
Relevance	94	Level 1: highly successful	Impact	94	Level 1: highly successful
Coherence	95	Level 1: highly successful	Efficiency	90	Level 2: successful
Effectiveness	97	Level 1: highly successful	Sustainability	85	Level 2: successful
Overall				**93**	**Level 1: highly successful**

Conclusions, success factors and challenges

Success factors:

- ☑ The project was based on already well-established experiences of the EnDev project.
- ☑ The established implementation and cooperation structure of GIZ allowed a quick start.
- ☑ The co-financing of two donor organisations created strong synergies.
- ☑ Implementation through NGOs enabled close contact with the population and local private sector.
- ☑ The participatory approach brought together all actors of the ICS sector, including government institutions, private sector, finance institutions and decentralised authorities.
- ☑ The market-based approach allowed to select the most performant private actors.
- ☑ The project results made a clear and substantial contribution to the national climate change targets.
- ☑ The project also responded to the demand of the governments to not only focus on ICS, but on clean cooking technologies at the strategy level.
- ☑ The project partners and beneficiaries showed a very strong ownership in the implementation of the activities.

Challenges:
The evaluation also identified some factors representing challenges for the project. In both Senegal and Kenya, there is significant progress in achieving their goals in climate action (SDG 13), but they still face significant challenges regarding the achievement of the other SDGs, namely SDG 3 (healthy lives), SDG 5 (gender equality), SDG 7 (access to energy) and SDG 15 (forests and biodiversity). For producers, key challenges include limited access to financing, high material costs, raw material shortages, low logistics capacity, and elevated loan interest rates.

Recommendations

In terms of **financing mechanisms**, interviewees stated in both countries that the lack of working capital represents the major challenge for micro, small and medium-sized enterprises (MSMEs) to develop their businesses. Although, the project involved the finance sector in its activities, it should have been done at an earlier stage. In addition, innovative financial mechanisms, such as Savings and Credit Cooperative Society (Kenya) (SACCOs), investment premium scheme, an improved match-making between ICS private actors and finance institutions as well as promotion of existing government funds are needed to achieve the transition from MSMEs to SMEs. These recommendations are valid for upcoming similar projects and for governments aiming at continuing the project activities.

Regarding **regulations** on ICS, it might be useful to verify if the elaboration and implementation of regulations on ICS, e.g. through the outlawing of traditional (inefficient) stoves, might be feasible. Regulations might also focus on the quality control of produced ICS.

With respect to foster **learning**, it would have been useful to foster even more exchange between Senegalese and Kenyan stakeholders than had already been done to improve mutual learning.

In terms of **project management**, potentially upcoming projects should put in place measures to digitalize the data management for monitoring purposes at national level.

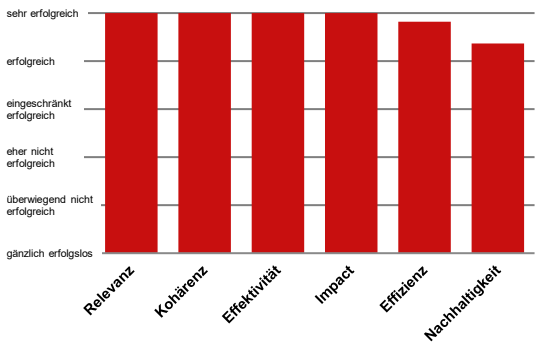
Executive Summary (German)

Titel	Förderung klimafreundlicher Kochtechnologien: Kenia und Senegal
Land/Region/	Kenia und Senegal
Sektor und Förderbereichsschlüssel	23183 – Energieeinsparung und Effizienz (75%) 32130 – Entwicklung von KMU (25%)
Projektnummer	BMZ: PN 2019.2349.9; GCF: FP103
Auftraggeber	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (BMZ), Green Climate Fund (GCF)
Politischer Träger/Partnerorganisationen	Kenia: Ministerium für Energie und Erdöl (MoEP); Ministerium für Finanzen und Wirtschaftsplanung als *National Designated Authority* (NDA), Kenia Senegal: Ministerium für Energie, Erdöl und Bergbau; Ministerium für Umwelt und ökologischen Wandel (NDA Senegal).
Projektvolumen	53.615.040 EUR (davon 38.360.000 EUR vom GCF, 12.780.000 EUR vom BMZ und indirekt bis zu 3.000.000 EUR von Partnerorganisationen
Projektlaufzeit	Dezember 2019 – März 2026

Ziele des Projekts

Das Projekt „Förderung klimafreundlicher Kochtechnologien“ war ein Beitrag des Green Climate Fund und Deutschlands mit dem Ziel, ein breit angelegtes, nachhaltiges Marktwachstum für verbesserte, klimafreundliche Kochtechnologien zu fördern, um einen Beitrag zu den Klimaschutzzielen Kenias und Senegals zu leisten. Dies sollte durch die Beschleunigung des Wachstums, der Transformation und der Professionalisierung des Marktes für verbesserte Kochherde (ICS) erreicht werden, um den Verbrauch von Biomasse zum Kochen und damit die Treibhausgasemissionen zu reduzieren.

Gesamtbewertung: Sehr erfolgreich (93/100)



Rahmenbedingungen und Einordnung des Projekts

Feste Biomasse, vor allem Brennholz (Feuerholz und Holzkohle), macht über 15 % des weltweiten Energieverbrauchs aus und trägt erheblich zu den CO_2-Emissionen bei, die auf 1,9 % bis 2,3 % der weltweiten Treibhausgasemissionen geschätzt werden. Der Ersatz traditioneller offener Feuerstellen durch verbesserte Kochherde bietet eine bedeutende Möglichkeit zur Emissionsminderung. In Kenia sind etwa 70 % der Haushalte, insbesondere in ländlichen Gebieten, beim Kochen noch immer auf Biomasse angewiesen, was direkt zur Entwaldung, zur Luftverschmutzung in Innenräumen und zu Gesundheitsrisiken wie Atemwegserkrankungen beiträgt. Die kenianische Regierung, insbesondere das Ministerium für Energie und Erdöl, arbeitet auf eine vollständige Umstellung auf saubere Kochlösungen hin und integriert sauberes Kochen in ihre Energie- und Umweltpolitik, insbesondere durch das Energiegesetz (2019), die nationale Energiepolitik und die nationale Strategie zur Umstellung des Kochens. Auch Senegal ist beim Kochen stark von festen Brennstoffen abhängig, die 45 % des Endenergieverbrauchs senegalesischer Haushalte ausmachen, in ländlichen Gebieten sogar 82 %. Die senegalesische Regierung hat einen rechtlichen Rahmen zur Förderung sauberer Kochlösungen, einschließlich verbesserter Kochherde, geschaffen. Die Ministerien für Energie, Erdöl und Bergbau (MEPM) sowie für Umwelt und ökologischen Wandel (METE) sind federführend bei der Umsetzung dieser Politik.

ICS unterstützen eine nachhaltige Entwicklung, indem sie Wälder und Biodiversität erhalten, Gesundheitsrisiken durch Rauchbelastung minimieren, die Belastung von Frauen und Kindern beim Sammeln von Brennholz verringern, die Energiekosten für Haushalte in einkommensschwachen Gemeinden senken, die Effizienz beim Kochen verbessern und Arbeitsplätze und Geschäftsmöglichkeiten schaffen.

Kurzbeschreibung des Projekts

Das Projekt war in drei Outputs gegliedert, darunter zwei Outputs auf nationaler Ebene (Kenia und Senegal) und einen globalen Output. Die Outputs 1 und 2 zielten darauf ab, die Marktentwicklung für klimafreundliche Kochtechnologien in Kenia (Output 1) und Senegal (Output 2) zu beschleunigen. Zu diesem Zweck führte das Projekt Sensibilisierungsmaßnahmen und Kapazitätsentwicklungsmaßnahmen für alle relevanten Akteure des „ICS-Ökosystems“ durch, darunter Hersteller*innen, Händler*innen, Installateur*innen, Kammern, Behörden und Finanzinstitute auf der Angebotsseite sowie Verbraucher*innen auf der Nachfrageseite. Ausgewählte ICS-Hersteller*innen sollten durch *Capacity Development*-Maßnahmen, Professionalisierungskits und Investitionspakete für professionelle Hersteller*innen qualifiziert werden, was zu einer Professionalisierung der ICS-Produktion führen sollte. Die gestärkten Kapazitäten der Finanzinstitute (FI) würden zu einem erleichterten Zugang zu marktbasierten Finanzmitteln für gewerbliche Hersteller*innen von ICS führen. Diese Ergebnisse würden dann zu einer Steigerung der ICS-Produktion führen. Darüber hinaus würde die Befähigung von *Last-Mile*-Unternehmer*innen (LME) (und Frauengruppen im Falle des Senegal) im Vertrieb und Einzelhandel zu einer Ausweitung der Vertriebs- und Einzelhandelsketten führen. Darüber hinaus würde das gestiegene Bewusstsein der Verbraucher*innen und die verstärkte Beteiligung anderer Interessengruppen, wie z. B. Blechproduzent*innen, Transportsektor, Dorfvorsteher*innen oder Gesundheitsförderer*innen in Kenia im ICS-Sektor, zu einem Anstieg der ICS-Verkäufe führen. Darüber hinaus verbesserte das Projekt die sektorale Koordination, den regulatorischen Rahmen und die Qualitätsstandards, was zur Schaffung eines förderlichen Marktumfelds führte. Diese Ergebnisse würden zusammen die Marktentwicklung für klimafreundliche Kochtechnologien in beiden Ländern beschleunigen, was zur Erreichung ihrer nationalen Klimaschutzziele beitragen würde.
Output 3 zielte darauf ab, das Wissen über klimafreundliche Kochtechnologien und ihren Beitrag zu den NDC zu verbessern. Diese „globale Komponente” des Projekts befasste sich mit der Aufgabe, die in Kenia und Senegal erzielten Ergebnisse in anderen Ländern zu replizieren. Zu diesem Zweck wurden auf nationaler Ebene generierte Daten gesammelt und zusammengestellt, wobei ein besonderer Schwerpunkt auf der Erfassung von Wissen und Belegen für die Vorteile und Auswirkungen des ICS-Sektors auf den Klimawandel in Form von Treibhausgasemissionsreduktionen lag. Die Projektergebnisse in Kenia und Senegal sollten dann zur Entwicklung von Wissensprodukten zum ICS genutzt werden.

Tabelle: Projektziel/Interventionsbereiche

Projektziel	**Ein breitenwirksames, nachhaltiges Marktwachstum für verbesserte und klimafreundliche Kochtechnologien trägt zur Erreichung der nationalen Klima-Minderungsziele in Kenia und Senegal bei.**
Output 1	Beschleunigte Marktentwicklung für klimafreundliche Kochtechnologien in Kenia
Output 2	Beschleunigte Marktentwicklung für klimafreundliche Kochtechnologien im Senegal
Output 3	Verbessertes Wissen über klimafreundliche Kochtechnologien und deren Beitrag zu den NDC

Bewertung nach DAC-Kriterien

Relevanz

Die Auswertung der Projektunterlagen und Geberstrategien sowie die Ergebnisse von Interviews mit verschiedenen Interessengruppen ergaben, dass das Projekt gut mit den Richtlinien und Prioritäten der Geber abgestimmt war. Das Projekt stand in vollem Einklang mit den Strategien des GCF zum Klimawandel, dem Pariser Abkommen und der Strategie des BMZ. Es war sehr gut auf die Ziele der globalen Entwicklungsgemeinschaft abgestimmt, die sich auf die Reduzierung von Treibhausgasen (THG), insbesondere Kohlendioxid, konzentrieren, was ein zentraler Pfeiler des Pariser Abkommens ist. Biomasse wird von der Mehrheit der

Haushalte sowohl in Kenia (55 % bis 75 %) als auch im Senegal (45 %) als Hauptquelle für Kochenergie genutzt. Das ICS-Projekt förderte Herdtechnologien, die von den Begünstigten und Interessengruppen als effizienter (kürzere Kochzeit), holzsparender (um 30 bis 66 %), rauchärmer, sauberer (weniger Verschmutzung, weniger Asche) und sicherer (keine gemeldeten Brandunfälle) empfunden wurden und ihnen Geld sparen (sie kaufen weniger Brennholz). Das Projekt stand in Einklang mit den SDGs 3, 5, 7, 13, und 15. Die Maßnahmen waren relevant, nachfrageorientiert und lagen durchaus im Rahmen der Möglichkeiten der Begünstigten, was die starke Übereinstimmung zwischen Projektdesign, den Bedürfnissen der Interessengruppen und den nationalen Zielen der Energiewende bestätigte. Das Projekt passte sich auch effektiv an globale und lokale Krisen an. Durch die Neukalibrierung der Maßnahmen, die Verankerung von Resilienz und Innovationen in den Ausbildungs- und Produktionssystemen wurden die Fortschritte in der ICS-Wertschöpfungskette aufrechterhalten und die langfristige Resilienz des Sektors für sauberes Kochen sowohl in Kenia als auch im Senegal gestärkt.

Kohärenz

Das in Kenia und Senegal durchgeführte ICS-Projekt war eines der größten Engagements zur Unterstützung der jeweiligen Länder bei der Erreichung ihrer NDC und das erste, das dies durch ein marktorientiertes System mittels Professionalisierung der Wertschöpfungskette der am häufigsten verwendeten Kochherde tat. Auf Geberebene zeigte das Projekt eine starke Kohärenz mit den Strategien und Rahmenwerken des BMZ in beiden Ländern, z. B. der Entwicklungspolitik 2030 des BMZ und dem Marshallplan mit Afrika. Der GCF und das BMZ haben kohärente Klimaziele, was die Projektumsetzung reibungslos gestaltete und wichtige Themen der deutschen Zusammenarbeit förderte. Das ICS-Projekt unterstützte direkt die Strategie des BMZ „Verantwortung für unseren Planeten – Klima und Energie“, deren Schwerpunkt auf Klimaschutz und Zugang zu Energie liegt. Durch die Reduzierung der Emissionen aus dem Kochen in Haushalten trug es zum breiteren Klimaportfolio des BMZ und zum 1,5-Grad-Ziel des Pariser Abkommens bei. Das ICS-Projekt ergänzte andere deutsche Entwicklungsmaßnahmen in Kenia und Senegal, indem es sich an den Klima- und Energieprioritäten des BMZ orientierte, auf der Arbeit von EnDev im Bereich sauberes Kochen aufbaute und sich mit den vom GCF finanzierten Programmen verzahnte. Es stärkte das breitere Portfolio Deutschlands, indem es die Professionalisierung der Herdhersteller förderte, sauberes Kochen in nationale Strategien einbettete und Verbindungen zu Initiativen zur Klimaminderung, zum Zugang zu Energie und zur Schaffung von Arbeitsplätzen herstellte. Auf internationaler Ebene ergänzte das ICS-Projekt das Engagement Deutschlands in Plattformen wie dem Green Climate Fund (GCF), der Clean Cooking Alliance (CCA), Sustainable Energy for All (SE4All), dem Weltbank-/ESMAP-Programm und der Afrika-EU-Energiepartnerschaft (AEEP). Durch die Anwendung der GCF-Prinzipien der transformativen Veränderung, der ergebnisorientierten Finanzierung, der Marktentwicklung und der Inklusivität stärkte das Projekt die Glaubwürdigkeit Deutschlands als Partner bei der Förderung systemischer Energiewenden. Es förderte auch die Querschnittsthemen des BMZ – gute Regierungsführung, wirtschaftliche Entwicklung, Gesundheit und gerechte Energiewende – und stellte so die Kohärenz auf bilateraler, regionaler und globaler Ebene sicher. Das Projekt hat die Wahrnehmung der deutschen Zusammenarbeit durch senegalesische und kenianische Beamte verbessert, zu neuen Anfragen und Aufgaben für das BMZ und die GIZ geführt und das Interesse an sauberen Kochlösungen erhöht.

Effektivität

Hinsichtlich der Erreichung der (beabsichtigten) Ziele ergab die Evaluierung, dass von 2020 bis Juni 2025 in den beiden Ländern 4 Millionen ICS verkauft wurden, was einer Gesamtreduktion der Treibhausgasemissionen von 5.238.349 t $CO2_{eq}$ seit Projektbeginn entspricht. Im Vergleich zum Zielwert von 6,47 Millionen Tonnen $CO2_{eq}$ wurde der entsprechende Indikator zu 81 % erreicht. Da jedoch die Methode zur Berechnung der Treibhausgasemissionen im Jahr 2023 geändert wurde, ohne den entsprechenden Zielwert anzupassen, würde die Reduzierung der Treibhausgasemissionen bei Anwendung der früheren Methode 7,644 Millionen Tonnen $CO2_{eq}$ betragen. Der Indikator gilt daher als vollständig erreicht. Die Evaluierung ergab außerdem, dass 8.030 zusätzliche Arbeitsplätze geschaffen wurden, davon 4.553 für Frauen (57 %). Der entsprechende Indikator ist vollständig erreicht. Darüber hinaus zeigte die Evaluierung, dass 20.140.401 Menschen, darunter

10.176.506 Frauen, einen besseren Zugang zu emissionsarmen Energiequellen erhielten. Der entsprechende Indikator wurde ebenfalls vollständig erreicht. Was den Beitrag des Projekts zur Erreichung der Ziele angeht, so bestätigte die Evaluierung, dass die Steigerung der Produktion und des Vertriebs den Absatz von ICS förderte und damit die Marktentwicklung für klimafreundliche Kochtechnologien deutlich beschleunigte, was zur Erreichung der nationalen Klimaschutzziele in Kenia und Senegal beitrug. Die im Rahmen des Projekts gesammelten Erfahrungen und entwickelten Wissensprodukte wurden von anderen Ländern für die Einführung marktbasierter Ansätze zur Reduzierung der Treibhausgasemissionen im Bereich der Kochenergie angefordert. Die Evaluierung ergab außerdem, dass die Qualität der Projektdurchführung sehr hoch war. Darüber hinaus wurden mehrere positive und einige geringfügig negative nichtintendierte Wirkungen auf Output- und Outcome-Ebene festgestellt.

Tabelle: Erreichung der Zielindikatoren des Projekts

Indikator	%
Reduzierung der Treibhausgasemissionen im Bereich der Kochenergie	100
Anzahl der neu geschaffenen Arbeitsplätze im ICS-Sektor	100
Anzahl der Personen (Männer und Frauen) mit verbessertem Zugang zu emissionsarmen Energiequellen zum Kochen	100

Übergeordnete entwicklungspolitische Wirkungen (Impact)

In beiden Ländern, Senegal und Kenia, wurden erhebliche Fortschritte bei der Erreichung ihrer Ziele im Bereich Klimaschutz (SDG 13) erzielt, doch stehen sie hinsichtlich der Erreichung der anderen SDGs, nämlich SDG 3 (gesundes Leben), SDG 5 (Geschlechtergleichstellung), SDG 7 (Zugang zu Energie) und SDG 15 (Wälder und Biodiversität), weiterhin vor großen Herausforderungen. Die Evaluierung ergab, dass infolge der Projektaktivitäten mehr als 10 Millionen Frauen einen besseren Zugang zu emissionsarmen Energiequellen zum Kochen erhielten. Das Projekt trug auch zur wirtschaftlichen Stärkung von Frauen bei, indem es ihre unternehmerischen Fähigkeiten stärkte und ihre Einkommen steigerte. Darüber hinaus wirkte sich der gestiegene Absatz von ICS positiv auf die Lebensgrundlage von Frauen aus, da die Luftverschmutzung durch Kochrauch und der Zeitaufwand für das Sammeln von Brennholz und das Kochen reduziert wurden. Der um 70 % reduzierte Brennstoffverbrauch führte auch zu finanziellen Einsparungen. Die Evaluierung ergab außerdem, dass das Projekt eindeutig die Grundlage für die Replizierung der Projektergebnisse geschaffen hat und dass die Wahrscheinlichkeit hoch ist, dass diese Ergebnisse in anderen Ländern wiederholt werden können. Das Projekt diente auch als Modell, indem es erfolgreich gezeigt hat, dass die Förderung eines marktbasierten Ansatzes in großem Maßstab machbar ist.

Effizienz

Die Evaluierung ergab, dass das Projekt ein gutes Maß an Produktionseffizienz aufwies. Der Instrumentenmix zeichnete sich durch eine hohe Anzahl von Experten aus, was angesichts der Komplexität des Projekts verständlich ist. Bemerkenswert ist, dass alle Mitarbeitenden in Kenia nationale Expert*innen waren. Die Personalkosten wurden als ausgewogen angesehen, insbesondere angesichts der Tatsache, dass alle Indikatoren vollständig erreicht wurden. Finanzierungsinstrumente, die hauptsächlich über Partnerorganisationen abgewickelt wurden, wurden erfolgreich für die Öffentlichkeitsarbeit gegenüber den Unternehmern und der Bevölkerung eingesetzt. Die Beschaffungskosten für Material, das für die Begünstigten gekauft wurde, und die Kosten für Maßnahmen zur Entwicklung der personellen Kapazitäten wurden als realistisch angesehen. Im Vergleich zu den ursprünglich veranschlagten Kosten blieben die meisten Kosten innerhalb einer angemessenen Abweichung, es wurden jedoch mehrere relevante Abweichungen festgestellt, insbesondere bei den Kosten für externe Expert*innen und anderen Kosten. Was die Kosten pro Output betrifft, so wurde der überwiegende Teil des Gesamtbudgets für die Durchführung der Aktivitäten in Kenia (Output 1) und Senegal (Output 2) ausgegeben, was realistisch die Aktivitäten zur Erreichung der in den beiden Ländern vorgesehenen Ergebnisse widerspiegelt. Für die globale Komponente (Output 3) wurde ein relativ geringer Teil des Budgets hauptsächlich für Monitoring-, Berichterstattungs- und Wissensmanagementaufgaben ausgegeben. Der Anteil der übergreifenden Kosten für allgemeine Aufgaben wie Verwaltungsdienstleistungen, Unterstützung,

Koordinierung und andere Projektaufgaben war sehr gering. Die Bewertung der Allokationseffizienz des Projekts ergab, dass die auf der GIZ basierende Umsetzungsstrategie einer auf Beratung basierenden Strategie vorzuziehen war, da sie auf den Erfahrungen, Ergebnissen und der bestehenden Kooperationsstruktur des von der GIZ durchgeführten EnDev-Programms beruhte. Das Projekt nutzte auch Mittel aus Partnerbeiträgen der Regierungen und Durchführungspartner Kenias und Senegals. Zum Zeitpunkt der Evaluierung waren die Partnerbeiträge im Senegal jedoch tatsächlich geringer als vorgesehen. Die Partnerbeiträge werden bis zum Ende des Projekts wahrscheinlich noch steigen. Darüber hinaus kombinierte das Projekt Mittel von zwei Geberorganisationen, was ebenfalls zur Effizienz des Projekts beitrug.

Nachhaltigkeit

Die Nachhaltigkeit des ICS-Projekts war in allen drei Dimensionen stark ausgeprägt. Die Begünstigten und Interessengruppen verfügen nun über die technischen, unternehmerischen und institutionellen Kapazitäten, um die Ergebnisse aufrechtzuerhalten (Dimension 1), unterstützt durch die bedeutenden Beiträge des Projekts in den Bereichen Ausbildung, Mechanisierung, Marktentwicklung und politikbezogene Unterstützung (Dimension 2). Ergebnisse wie reduzierte Treibhausgasemissionen, die Schaffung von Arbeitsplätzen und die Professionalisierung des ICS-Ökosystems sind dauerhaft und werden sich voraussichtlich über die Projektlaufzeit hinaus verstärken (Dimension 3). Obwohl ICS nach wie vor eine intermediäre Technologie ist und nicht vollständig sauber ist, wird die Nachfrage in ländlichen Gebieten voraussichtlich auch in den nächsten Jahrzehnten hoch bleiben, sodass eine anhaltende Wirkung auch dann gewährleistet ist, wenn sauberere Lösungen allmählich Verbreitung finden. Risiken wie Finanzierungsengpässe, Ressourcenverfügbarkeit und politische Veränderungen bestehen zwar, aber die Resilienz und Anpassungsfähigkeit der Akteure geben Vertrauen in die langfristige Nachhaltigkeit.

Gesamtbewertung

Mit einer Gesamtpunktzahl von 93 von 100 Punkten erhielt das Projekt „Förderung klimafreundlichen Kochens" in Kenia und Senegal die Gesamtbewertung Stufe 1 (sehr erfolgreich). Das Evaluierungsteam befand das Projekt als sehr relevant und kohärent. Es war außerdem sehr erfolgreich bei der Erreichung seiner Ergebnisse und der Erzielung von Wirkung auf der Impact-Ebene. In Bezug auf die Effizienz und Nachhaltigkeit seiner Ergebnisse wurde das Projekt als erfolgreich bewertet.
Die Hauptgründe für den Erfolg des Projekts lagen in der bereits gut etablierten Umsetzungs- und Kooperationsstruktur der GIZ und der Nutzung der im Rahmen des EnDev-Projekts gewonnenen Erfahrungen als Grundlage für die Projektgestaltung. Darüber hinaus schätzten die Partnerregierungen die Projektergebnisse sehr, da sie einen klaren und wesentlichen Beitrag zu ihren nationalen Klimazielen leisteten. Der markt- und leistungsorientierte Ansatz des Projekts ermöglichte die Auswahl der leistungsstärksten privaten Akteure, während sein partizipativer Ansatz alle Akteure des ICS-Sektors zusammenbrachte. Schließlich hat die kombinierte Finanzierung durch zwei Geberorganisationen (GCF, BMZ) und die Projektpartner sehr starke Synergien geschaffen. Das starke politische Engagement der Regierungen war ebenfalls entscheidend für den Erfolg des Projekts.

Tabelle: Bewertung der OECD-DAC Evaluierungskriterien

Kriterium	Punkt-zahl (von 100)	Bewertung 1 (sehr erfolgreich) bis 6 (gänzlich erfolglos)	Kriterium	Punkt-zahl (von 100)	Bewertung 1 (sehr erfolgreich) bis 6 (gänzlich erfolglos)
Relevanz	94	Stufe 1: sehr erfolgreich	Impact	94	Stufe 1: sehr erfolgreich
Kohärenz	95	Stufe 1: sehr erfolgreich	Effizienz	90	Stufe 2: erfolgreich
Effektivität	97	Stufe 1: sehr erfolgreich	Nachhaltigkeit	85	Stufe 2: erfolgreich
Gesamtbewertung				**93**	Stufe 1: sehr erfolgreich

Schlussfolgerungen sowie Erfolgsfaktoren und Herausforderungen

Erfolgsfaktoren:

- ☑ Die Umsetzung durch Nichtregierungsorganisationen ermöglichte einen engen Kontakt zur Bevölkerung und zum lokalen Privatsektor.
- ☑ Der partizipative Ansatz brachte alle Akteure des ICS-Sektors zusammen, darunter staatliche Institutionen, den Privatsektor, Finanzinstitute und dezentrale Behörden.
- ☑ Der marktbasierte Ansatz ermöglichte die Auswahl der leistungsfähigsten privaten Akteure.
- ☑ Die Projektergebnisse leisteten einen klaren und wesentlichen Beitrag zu den nationalen Klimazielen.
- ☑ Das Projekt entsprach auch der Forderung der Regierungen, sich auf strategischer Ebene nicht nur auf ICS, sondern auch auf saubere Kochtechnologien zu konzentrieren.
- ☑ Die Projektpartner und Begünstigten zeigten ein sehr starkes Engagement bei der Umsetzung der Aktivitäten.

Herausforderungen:
Die Evaluierung identifizierte einige Faktoren, die Herausforderungen für das Projekt darstellen. In beiden Ländern, Senegal und Kenia, gibt es erhebliche Fortschritte bei der Erreichung ihrer Ziele im Bereich Klimaschutz (SDG 13), aber sie stehen weiterhin vor großen Herausforderungen hinsichtlich der Erreichung der anderen SDGs, nämlich SDG 3 (gesundes Leben), SDG 5 (Geschlechtergleichstellung), SDG 7 (Zugang zu Energie) und SDG 15 (Wälder und Biodiversität). Zu den wichtigsten Herausforderungen für die Produzent*innen zählen der begrenzte Zugang zu Finanzmitteln, hohe Materialkosten, Rohstoffknappheit, geringe Logistikkapazitäten und hohe Kreditzinsen.

Empfehlungen

In Bezug auf **Finanzierungsmechanismen** gaben die Befragten in beiden Ländern an, dass der Mangel an Betriebskapital die größte Herausforderung für KKMU bei der Entwicklung ihrer Unternehmen darstellt. Obwohl der Finanzsektor in die Aktivitäten des Projekts einbezogen wurde, hätte dies bereits zu einem früheren Zeitpunkt geschehen sollen. Darüber hinaus sind innovative Finanzierungsmechanismen wie SACCOs, Investitionsprämienprogramme, eine verbesserte Vermittlung zwischen privaten ICS-Akteuren und FI sowie die Förderung bestehender staatlicher Fonds erforderlich, um den Übergang von KKMU zu KMU zu erreichen. Diese Empfehlungen gelten für künftige ähnliche Projekte und für Regierungen, die die Projektaktivitäten fortsetzen möchten.

In Bezug auf **Regulierungen** zu ICS könnte es sinnvoll sein, zu prüfen, ob die Ausarbeitung und Umsetzung von Vorschriften zu ICS, z. B. durch das Verbot traditioneller (ineffizienter) Öfen, machbar wäre. Regulierungen könnten sich auch auf die Qualitätskontrolle der hergestellten ICS beziehen.

Im Hinblick auf die **Förderung des Lernens** wäre es sinnvoll gewesen, den Austausch zwischen senegalesischen und kenianischen Interessengruppen noch mehr zu fördern, als dies bereits geschehen ist, um das gegenseitige Lernen zu verbessern.

Im Hinblick auf das **Projektmanagement** sollten bei potenziellen künftigen Projekten Maßnahmen zur Digitalisierung der Datenerhebung für Monitoring auf nationaler Ebene getroffen werden.

The project at a glance

Promotion of Climate-Friendly Cooking: Kenya and Senegal

Project number	BMZ: PN 2019.2349.9; GCF: FP103
Creditor reporting system code(s)	23183 – Energy Savings and Efficiency (75%) 32130 – Development of Small and Medium-Sized Enterprises (25%)
Project objective	BMZ project objective: Broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal. GCF paradigm shift objective: 'Accelerate the growth of ICS market and significantly increase the level of ICS sales, particularly in remote rural locations, thereby enabling two targeted countries, Kenya and Senegal, to reach their stated NDC goals on ICS coverage and GHG emission reduction in the energy-cooking sector' GCF Fund-level impact M3.0: Reduced emissions from buildings, cities, industries and appliances GCF Fund-level impact: Social, environmental, economic co-benefit index/indicator at impact level GCF Fund-level outcome M6.0: Increased number of small, medium and large low-emission power suppliers
Project term	December 2019 – March 2026
Project value	EUR 53,615,040, including EUR 38,360,000 from GCF, EUR 12,780,000 from BMZ and indirectly up to EUR 3,000,000 from partner organisations
Commissioning party/co-financier	German Federal Ministry for Economic Cooperation and Development (BMZ) Green Climate Fund (GCF)
Lead executing agency	**Kenya:** Ministry of Energy and Petroleum (MoEP); National Treasury and Planning of Kenya as the National Designated Authority (NDA), Kenya; **Senegal:** *Ministère de l'Energie, du Pétrole et des Mines* (MEPM); *Ministère de l'Environnement et de la Transition écologique* (METE) (NDA Senegal).
Executing entities / Implementing partner organisations (in the partner countries)	**Kenya**: Mercy Corps (former Energy for Impact (E4I) after a merger), Practical Action, GIZ Kenya, MoEP Implementing partners: Dedan Kimathi University of Technology (DeKUT), Strathmore University, implemented within the Strathmore Energy Research Centre, the Green Belt Movement, the Kenya Tea Development Agency Foundation (KTDA-F), Clean Cooking Association of Kenya (CCAK), State Department of Renewable Energy (MoEP) **Senegal**: Concept, Enda Energie, Enda Ecopop, chambers of crafts, GIZ Senegal
Target group(s)	Direct target group: • officers at technical and managerial levels from the executing entities in Kenya and Senegal • staff at technical and managerial levels within other stakeholders, such as Ministère de l'Environnement et de la Transition Écologique (METE) and finance institutions (FI) • producers and fabricators of improved cooking stoves (ICS) • entrepreneurs of the distribution and retail chains in the target regions • consumers in the target regions • sector associations such as KEREA in Kenya Indirect target group is the rural population predominantly affected by low access to climate-friendly cooking solutions in the target regions in Kenya and Senegal
Development cooperation (DC) programme	Not applicable
Reporting year of CPE	2025

1 Evaluation objectives and questions

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

1.1 Evaluation objectives

Central project evaluations (CPE) 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 so that the contribution the evaluation process and the evaluation findings make to these basic functions is optimised (GIZ, 2020). Evaluations of **projects co-financed by the Green Climate Fund (GCF)** are required to follow the methodological standards set by the CPE system. This applies to all GCF-funded projects, regardless of whether they receive funding from the BMZ or another German Federal Ministry. As an integral part of the GCF project cycle, a final evaluation had to be carried out for this project by following the GIZ CPE system.

1.2 Evaluation questions

The project was assessed based on standardised evaluation criteria and questions to ensure comparability by GIZ. This was 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 (BMZ, 2021): **relevance, coherence, efficiency**, **effectiveness**, **impact** and **sustainability**.

Specific assessment dimensions and evaluation questions have been derived from this given framework by BMZ. These assessment dimensions and evaluation questions are the basis for all CPEs in GIZ and can be found in the annex. In addition, contributions to the Agenda for Sustainable Development 2030 and its principles were also considered as well as cross-cutting issues such as gender, the environment, conflict sensitivity and human rights. Furthermore, the project was considered to have been implemented in a fragile context, whereas the questions regarding context and conflict sensitivity are included (see annex). The **guiding evaluation questions of GCF** have all been matched to the questions in the CPE framework.

Key evaluation interests by key stakeholders are listed in table 1. They were collected in interviews and during the inception workshop.

Table 1: Knowledge interests by main evaluation stakeholder groups

Evaluation stakeholder group	Particular subjects of interest in evaluation/ additional evaluation questions	Relevant section in this report
GCF	Have the Greenhouse Gas (GHG) emission reductions achieved by the project been relevant for the achievement of the NDC targets?	Effectiveness, Impact
GCF	How can other countries benefit from the project's lessons learnt?	Sustainability
GCF	Is there evidence for the replication of project results?	Sustainability
GCF	What are the project's success stories?	Effectiveness, Impact

Evaluation stakeholder group	Particular subjects of interest in evaluation/ additional evaluation questions	Relevant section in this report
GCF	What is the project's value for money?	Efficiency
BMZ	How complex (bureaucratic) is the project in terms of design and implementation?	Relevance, Effectiveness
	Are the two projects 'Climate-friendly cooking' and 'Energising Development (EnDev)' clearly separated but also deliver synergies (Senegal and Kenya)?	Coherence
	How sustainable is the market development? Will the market run on its own?	Sustainability
	What were the specific project results obtained for women?	Effectiveness, Impact
	What are potential risks for the results obtained (e.g. voluntary carbon market)?	Sustainability

2 Object of the evaluation

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

2.1 Definition of the evaluation object

The **evaluation object** is the technical cooperation measure entitled, Promotion of Climate-Friendly Cooking: Kenya and Senegal (PN 2019.2349.9). The project supported and assisted the governments of Kenya and Senegal to meet their Nationally Determined Contributions (NDCs). It was expected to achieve this by accelerating the growth, transformation and professionalisation of the Improved Cooking Stove (ICS) in order to reduce usage of national biomass for cooking and thus reduce greenhouse gas emissions.

Solid biomass, primarily fuelwood (firewood and charcoal), accounts for over 15% of global energy consumption, contributing significantly to CO2 emissions and short-lived climate pollutants, estimated at 1.9% to 2.3% of global greenhouse gas emissions (Ritchie et al., 2020; Rhodium Group, 2024). Replacing traditional open fires with improved cook stoves (ICS) presents a significant global mitigation opportunity, potentially reducing emissions by 600 million tonnes (Mt) to 2,400 Mt CO2 eq. per year, with sub-Saharan Africa showing an increasing adoption trend (Whitman et al., 2022; EnDev, 2025). ICSs support sustainable development by preserving forests and biodiversity, minimising health risks from smoke exposure, alleviating the burden on women and children in fuelwood collection, lowering household energy costs for low-income communities, enhancing efficiency in cooking, and creating employment and business opportunities (IPCC, 2011; EnDev, 2025).

The project operated in the ICS market development by (a) professionalising the ICS production, expanding the distribution and retail chains and facilitating access to market-based finance (supply side activities); and (b) by raising consumer awareness and creating an enabling market environment (demand side activities) (GIZ, 2019b; EnDev, 2021).

The current project's **temporal delineation** spans from 20 December 2019 to 31 March 2026 following a no-cost extension granted because of delays caused by the Covid 19 pandemic.

In terms of **financial delimitation**, the Promotion of Climate-Friendly Cooking; Kenya and Senegal project had a commissioning value of EUR 53,615,040. The commission comprised EUR 38,360,000 from the GCF, EUR 12,780,000 from the BMZ. All contributions were part of the evaluation object. Furthermore, own

contributions of (up to) EUR 3,000,000 by political partners as well as executing entities and other implementation partners were indirectly part of the evaluation object:

- EUR 1,037,140 by Government of Kenya (MoEP);
- EUR 280,304 by Kenya Tea Development Agency (KTDA);
- EUR 126,097 by Practical Action;
- EUR 109,713 by Strathmore University;
- EUR 554,550 by Government of Senegal (MEPM; METE);
- EUR 283,674 by Enda Energie;
- EUR 301,536 by Enda Ecopop;
- EUR 211,058 by Concept;
- EUR 87,100 by DeKUT;
- EUR 56,126 by Green Belt Movement.

Regarding its **geographical delimitation**, the project covered about 40 out of 47 counties in Kenya and is a nationwide project in Senegal.

Kenya, a dynamic and diverse country in East Africa, with an estimated population of 55 million people is classified as a lower-middle-income country, with steady economic growth supported by key sectors such as agriculture, tourism, technology and services. Access to electricity is rated at 76.2% as of 2023 up from 29% in 2013 (World Bank, 2025). Kenya forest resources decreased from 3,858,540 ha in 1990 to 3,611,090 ha in 2020, a 6.4% reduction over the last 20 years (FAO, 2020b). At the level of the continent, Kenya is ranked in 6th position in countries producing firewood at 41.8 million tonnes (AFREC, 2024). Households in Kenya use a mix of traditional and modern cooking energy sources. The primary source is biomass (i.e. firewood and charcoal). About 70% of households still rely on biomass for cooking (EPRA, 2025; World Bank and Stockholm Energy Institute (SEI), 2021), particularly in rural areas, which directly contributes to deforestation, indoor air pollution, and health risks such as respiratory diseases. Deforestation is a major concern, with 8,340 ha of natural forest lost in 2024, contributing to 3.43 million tonnes of CO2 emissions (Global Forest Watch, 2024). Other sources of cooking energy include liquefied petroleum gas (LPG) whose usage has grown, with 53% of urban households and 5.6% of rural households adopting it. The government is promoting electric cooking, aiming for universal access by 2030 (Pope et al., 2021; Saligari, 2023; Solar Cookers International, 2025). Though declining, some households still use kerosene for cooking; biogas and ethanol are alternatives being explored but have limited adoption. Kenya is working towards a full transition to clean cooking solutions, with policies supporting LPG and electric cooking expansion. Kenya integrates clean cooking into its energy and environmental policies. The Energy Act (2019) provides a legal framework, and the Kenya National Energy Policy emphasises modern cooking solutions to combat deforestation and indoor air pollution (MoEP, 2024; CDKN, 2018). In addition, Kenya has formulated the Kenya National Cooking Transition Strategy to drive clean cooking while recognising the place and value of ICS (MoEP, 2024). The government partners with development agencies and the private sector, promoting efficient cook stoves through subsidies, awareness and financing, notably via the Clean Cooking Association of Kenya (CCAK) (Clean Cooking Alliance (CCA), 2025).

Senegal is found in the west coast of Africa, and is also classified as a lower-middle-income country with a thriving economy whose projected GDP (gross domestic product) growth rate is 8.4% largely driven by major energy projects including the Greater Tortue Ahmeyim and Sangomar oil and gas fields, which are boosting exports and reducing reliance on imported energy. Senegal forest area has declined from 9,303,160 ha in 1990 to 8,108,160 ha in 2020, a reduction of 12.85% over the last 20 years (FAO, 2020a, 2020c). Deforestation is a challenge because the country is losing an average of 40,000 ha/year of forest (FAO, 2020a, 2020c) corresponding to 11.74 million tonnes CO2/year according to the IPCC 2006 estimation methodology. The government with its partners is implementing various measures to manage the situation. Senegal also heavily depends on solid fuels for cooking, accounting for 45% of the final energy used by Senegalese households, with biomass being the main source, which contributes to deforestation and environmental harm (SEMIS,

2025a). The trend is more significant in rural areas: according to Senegal's energy information system, biomass (wood and charcoal) accounted for 82% of final energy consumption in the household sector (MEPM, 2025a).

The reliance on these fuels exacerbates deforestation and environmental degradation. Efforts to introduce alternative cooking fuels, such as briquettes from agricultural waste, ethanol and biogas have been explored. However, adoption remains limited due to economic constraints and cultural preferences. Improved cook stove interventions aim to reduce emissions and enhance efficiency, but widespread implementation is still a challenge. The government is working to expand clean cooking solutions, promoting LPG and renewable energy alternatives to reduce reliance on biomass. Efforts include subsidies, improved distribution networks, and awareness campaigns to encourage adoption of cleaner fuels. However, affordability and infrastructure challenges continue to slow progress. Senegal's government has set up a legal framework to promote clean cooking solutions, including ICS. The government is working with international groups to boost access to efficient cooking tech, aiming to reduce deforestation and indoor air pollution (SEMIS, 2025a).
The Ministries of Energy, Petroleum and Mining (MEPM), Environment, and Ecological Transition (METE) are leading the charge on these policies. Programmes like EnDev Senegal focus on building commercial supply chains, ensuring quality, and making ICS financially accessible. Senegal is even pushing for local production and distribution of these stoves to keep them affordable and sustainable. However, the biggest hurdles are scaling up adoption and actually enforcing regulations to get widespread use of these clean cooking technologies (SEMIS, 2025a).

The socio-economic and political dynamics in Kenya and Senegal predispose several risks:

- In Kenya, socio-economic risks include public debt estimated 68% of the GDP; high rates of unemployment, especially among the young people; and widespread inequality. Regional and income disparities remain stark, with marginalised counties lagging in infrastructure, education and healthcare. Together with inflation, high costs of living and tax hikes (e.g. Finance Bill of 2024) triggered violent protests in many urban and peri-urban area. In 2024, an International Monetary Fund (IMF) mission revealed that Senegal's public debt had been underestimated. Once unrecorded debts were factored in, the debt-to-GDP ratio increased from approximately 75% to 80% in 2023 to over 100% in 2024 (IMF, 2025). This resulted in a downgrade of the sovereign rating by both Moody's (from B1 to B3) and Standard & Poor's (from B+ to B-), leading to a loss of market confidence (Moody's Ratings, 2025; Reuters, 2025). The country is considered to be at high risk of debt distress. Nevertheless, the Senegalese economy has shown resilience in the face of these fiscal challenges, achieving a year-on-year growth rate of 12.1% in the first quarter of 2025, driven by expansion in the hydrocarbon sector (IMF, 2025).
- Political risks include: Governance tensions and political polarisation in Kenya during every election cycle (e.g. violent demonstrations following the 2022 general elections and political tensions intensifying ahead of the 2027 general elections), civil unrests and protests against abduction and extra-judicial executions by suspected state security organs, and rising tribalism pushed by political rivalries are stark examples (CHRIPS, 2022; NCIC, 2022; ACLED, 2022; HRW, 2024; IMLU, 2024; WritAfrica, 2024). Senegal presents a different picture. Despite tensions during the 2024 presidential elections, it is viewed as a stable political nation with a strong democracy culture (International IDEA, 2024; Chatham House, 2024; African Security Analysis, 2025).
- Socially, and intertwined with cultural, traditional, economic and political complexities are intertribal conflicts mostly in the drier counties of northern Kenya (over land, grazing resources, intertribal and ethnic differences, droughts), and as well, insecurity brought about by Al Shabab in north-eastern and coastal counties. These pose moderate to high levels of security risk for project personnel. In Senegal, the results of the Harmonised Survey on Household Living Conditions (ANSD, 2019b) indicate that 37.8% of the population lives in poverty. This poverty is further exacerbated by the effects of climate change, such as rising temperatures, droughts and flooding. According to Regmi and Kostandini (2025), 62% of households in the 2016 Demographic and Health Survey sample were severely impacted by rising temperatures,

resulting in widespread child malnutrition. Although previously exempt, Senegal remains vulnerable to jihadism, particularly in the eastern border regions of Tambacounda, Kedougou, and Matam, due to its proximity to Mali, where extremist groups are active (International Crisis Group, 2021; Institute for Security Studies, 2022).

2.2 Results model including hypotheses

The **theory of change** (ToC) is the central basis for the applied theory-based evaluation approach. It is essential for assessing all six OECD DAC criteria. The following definitions are applied (GIZ, 2014a):

Table 2: Results level terminology

Terminology	Definitions
Results	GIZ understands results as the intended or unintended, positive or negative changes in a situation or behaviour as the direct or indirect consequence of an intervention. Results are mapped in a systemic GIZ results model and implicitly include impacts, outcomes and outputs. The OECD DAC and BMZ also define results as the overall term for impacts, outcomes and outputs. The BMZ definition is in line with OECD DAC
Impacts	Impacts are the [...] higher-level development results (is in line with OECD DAC)
Outcomes	Outcomes are the […] changes that occur as a consequence of the use of an intervention's outputs. They correspond more or less to the achievement of the […] project objective and include both the use of the outputs delivered by the project by the intermediaries and target groups, and the direct benefit
Outputs	Outputs describe the changes and conditions achieved by the project's activities, such as products, goods, services, acquired technical skills and knowledge, institutions and regulations

Project structure

In accordance with the BMZ proposal, the project was structured into three outputs, specifically two national-level outputs (Kenya and Senegal) and a global output. The outputs corresponded exactly to the three components of the GCF funding proposal.

- Output 1: Accelerated market development for climate-friendly cooking technologies in Kenya,
- Output 2: Accelerated market development for climate-friendly cooking technologies in Senegal, and
- Output 3: Improved knowledge on climate-friendly cooking technologies and their contribution to NDC.

Project objectives (outcome level)

In accordance with the BMZ proposal, the project's objective was to foster broad-based, sustainable market growth for improved, climate-friendly cooking technologies in order to contribute to the climate mitigation targets of Kenya and Senegal (**project objective**). This objective was identical to the GCF **paradigm shift objective** 'to accelerate the growth of ICS market and significantly increase the level of ICS sales, in particular in remote rural locations, thereby enabling two targeted countries, Kenya and Senegal, to reach their stated NDC goals on ICS coverage and GHG emission reduction in the energy-cooking sector'. Although, the paradigm shift, as well as the fund-level impacts, are usually located at the impact level, they were in the case of this specific project within the direct sphere of responsibility of the project, because the fund-level impact indicators are identical to the BMZ project objective indicators, which are mandatory to be obtained by the project as defined in the contract between BMZ and GIZ. Consequently, all so-called fund-level impacts as well as the paradigm shift were considered as outcomes.

According to the GCF funding proposal, the project aimed at achieving the following fund-level results:

- GCF Fund-level impact M3.0: Reduced emissions from buildings, cities, industries and appliances,
- GCF Fund-level impact: Social, environmental, economic co-benefit index/indicator at impact level, and

- GCF Fund-level outcome M6.0: Increased number of small, medium and large low-emission power suppliers.

The indicators for these three fund-level results were identical to the project objective indicators, whereas they were considered being included in the BMZ project objective. In addition, the results matrix of the BMZ proposal and the logic framework of the GCF funding proposal were interlinked via identical indicators.

Output level

Outputs 1 and 2 aimed at accelerating the market development for climate-friendly cooking technologies in Kenya (output 1) and Senegal (output 2). To this end, the project carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including producers, distributers, installers, chambers, authorities and finance institutions (FI) on the supply side as well as consumers on the demand side (**activities**). These activities were expected to be implemented in cooperation with the Kenyan and Senegalese partner organisations (**result R1**). After the selection of ICS producers and ICS production centre sites (**result R2**), the ICS producers would be capacitated through capacity development measures and professionalisation kits (**result R3**) leading to the professionalisation of the ICS production (**result R4**). Result R1 was also expected to lead to strengthened capacities of FI (**result R5**), which, together with result R4, would result in a facilitated access to market-based finance for business class producers of ICS (**result R6**). As a consequence, more large ICS producers would access loans of FIs for investment (**result R7**) leading, together with result R4, to an increased production of ICS (**result R8**). Additionally, result R1 would result in last mile entrepreneurs (LMEs) (and women's groups in the case of Senegal) being capacitated in distribution and retail (**result R9**) leading to an expansion of distribution and retail chains (**result R10**). Moreover, result R1 was expected to raise the awareness of consumers (**result R11**) and increase the participation of other stakeholders, such as metal sheet producers, transport sector, village heads, or community health promoters in Kenya in the ICS sector (**result R12**). As a outcome of result R8, result R10, result R11 and result R12, it was expected that more ICS would be sold **(result R13**). It was also expected that result R1 would lead to the improvement of the sector coordination, regulatory framework and quality standards **(result R14**), which would contribute to result R6, but particularly lead to the creation of an enabling market environment **(result R16**). In Kenya, result 14 was, additionally, expected to lead to the consideration of ICS in county strategies and action plans **(result R15**) thus also contributing to result R16. The underlying **hypothesis** was that a better access to finance (result R7), a higher sale rate of ICS (result R13) and the creation of an enabling market environment (result R16) would accelerate the market development for climate-friendly cooking technologies in Kenya (**output 1**) and Senegal (**output 2**). The main **assumption** to achieve outputs 1 and 2 was that the promotion of ICS by governments and donors in Kenya and Senegal would be based on market-based approaches and not, for example, on high subsidies, which would make sustainable pricing more difficult. Moreover, it was assumed that producers would have an interest to increase the production capacities of their cooker production facilities. The main **risk** to achieving outputs 1 and 2 was that LPG and electricity might be subsidised on a large scale, so that consumers may not be interested in using biomass-based cookers.

Output 3 aimed at improving the knowledge on climate-friendly cooking technologies and their contribution to NDC. This 'global component' of the project tackled the challenge to replicate the results achieved in Kenya and Senegal in other countries. To this end, the project collected and compiled data generated at national level as results of outputs 1 and 2, including project results and impacts, with particular attention to gathering knowledge and evidence of the climate change benefits and impacts of the ICS sector in the form of GHG emission reductions (**activities**). As a consequence, the activities in Kenya and Senegal were supposed to be monitored, verified and validated **(result R17**). The project results in Kenya and Senegal were then expected to be evaluated **(result R18**) and to be used to develop knowledge products on ICS **(result R19**). The main **assumption** regarding output 3 and its associated results was that the success factors for market development

for ICS in Kenya and Senegal are transferable and replicable. There was a **risk** that the results in Kenya and Senegal might not be available in time to deliver knowledge products.

Outcome level

The outputs 1 and 2 were expected to contribute to the objective that 'broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal' (**project objective and paradigm shift**). The underlying hypothesis was that, an accelerated market development for climate-friendly cooking technologies in Kenya (**output 1**) and Senegal (**output 2**) would lead to the reduction of GHG emissions in the cooking sector. In addition, it was expected that the number of people with access to a cooking energy supply with low GHG emissions would increase (**project objective**). Moreover, it was expected that the improved knowledge on climate-friendly cooking solutions (**output 3**) would be requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector (**result R20**). Apart from a monitoring service for the two components in Kenya and Senegal, output 3 did not contribute directly to the project objective, but to result R20. Nevertheless, the request of the project's knowledge products by other projects or donor organisations was out of this project's direct sphere of influence. Result 20 was therefore considered to be at the limit between outcome and impact level.

Impact level

As the paradigm shift and the fund-level impacts were situated within the project's sphere of responsibility, they were considered as outcomes (see above). The overarching development results (impacts) were, therefore, situated within SDGs and co-benefits, such as environmental or social impacts. In particular, the project outcome was expected to contribute to **SDG 13** (Take urgent action to combat climate change and its impacts). In addition, the project outcome was intended to contribute to **SDG 5** (Achieve gender equality and empower all women and girls), **SDG 7** (Ensure access to affordable, reliable, sustainable and modern energy) and **SDG 3** (Ensure healthy lives and promote well-being). Moreover, the project was supposed to support sustainable development by preserving forests and biodiversity (**SDG 15**). Additionally, the project was expected to contribute to the replication of experiences from Kenya and Senegal in other countries (**result 21**). There is a **risk** that changes in government priorities may decrease the impact of the project results at impact level.

System boundary

All outputs and the project outcomes were within the project's sphere of responsibility. Only result 20 is considered to be at the limit between outcome and impact level (see above). SDGs at impact level and result 21 were outside the project's direct responsibility.

Implementation structure

For the implementation of the project, GCF, as a funder, requested the following key actors: an accredited entity to provide oversight and act as the manager of the project, several executing entities (EE) responsible for implementing the activities, and a national designated authority (NDA) to serve as a focal point between the partner country and GCF (GIZ, 2021a). The GCF Oversight Unit at GIZ's corporate head office functions as the **accredited entity** for the project.

In **Kenya**, the National Treasury and Planning was the **NDA** and helped ensure alignment between the project and the country's national goals, while the following were **executing entities** (GIZ, 2021a):

- Ministry of Energy and Petroleum, the political partner of the project, at the macro level;
- NGOs Mercy Corps and Practical Action, situated at the meso level;

- GIZ Kenya.[1]

Furthermore, the project involved other implementing partners at the meso level, such as Dedan Kimathi University of Technology (DeKUT), Strathmore Energy Research Centre at Strathmore University, the Green Belt Movement, the Clean Cooking Association of Kenya and the Kenya Tea Development Agency Foundation (KTDA-F) (GIZ, 2021a).

In **Senegal**, the Ministry of Environment and Ecological Transition (*Ministère de l'Environnement et de la Transition Écologique*, METE) functioned as **NDA** and was responsible for the alignment of the project and the country's national goals. METE was one of the two political partners of the project and located at the macro level. The Ministry of Energy, Petroleum and Mining (*Ministère de l'Energie, du Pétrole et des Mines,* MEPM) was the second political partner of the project and also situated at the macro level, In addition, the project included the following **executing entities** (GIZ, 2021a):

- NGOs Concept, Enda Energie, Enda Ecopop, situated at the meso level; and
- GIZ Senegal.[2]

Furthermore, the project involved other relevant stakeholders, such as the chambers of crafts. They represented a major interface in the cooperation with ICS producers (GIZ, 2021a).

Target groups

The **direct target group** of the project were:

- officers and experts at technical and managerial levels from the EE's in Kenya and Senegal;
- staff at technical and managerial levels within other stakeholders, such as METE and FI;
- producers of improved cooking stoves;
- entrepreneurs of the distribution and retail chains in the target regions;
- consumers in the target regions.

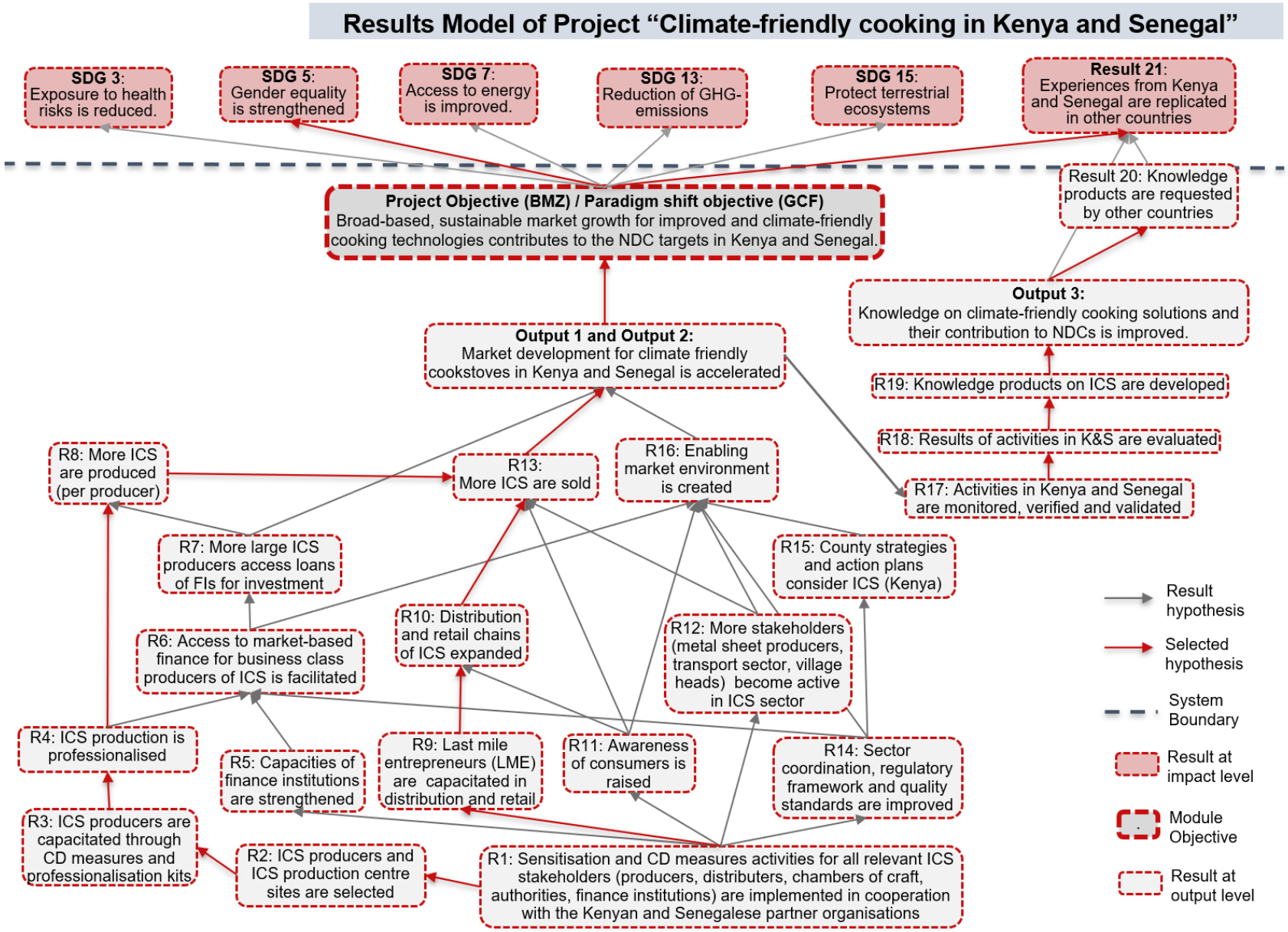
The **indirect target group** of the project was the population predominantly affected by low access to climate-friendly cooking solutions in the target regions in Kenya and Senegal, but not covered directly by project activities. For additional information, please refer to the target group analysis in section 4.2.

Cross-cutting issues

The evaluation also verified whether essential cross-cutting issues such as gender, the environment, conflict sensitivity and human rights were appropriately addressed during the design and implementation of the project.

[1] GIZ established strict procedures to guarantee separation between the two functions (GCF funding proposal, 2019).
[2] GIZ established strict procedures to guarantee separation between the two functions (GCF funding proposal, 2019).

Figure 1: Current results model (October 2025), adapted during evaluation



3 Evaluability and evaluation process

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

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

All essential documents, in particular planning documents and progress reports, were made available to the evaluation team (see annex).

Monitoring and baseline data including partner data

The project applied, together with EnDev, an Online Data Management (ODM) tool for monitoring, data collection, verification and reporting. The ODM compiled, for both countries separately, the following data:
- ICS sales;
- GHG mitigation;
- households reached, including women-headed households;
- individuals reached, including female share and children share;
- full-time job equivalents, including full-time jobs for women;
- financial leveraging.

Given the large number of preliminary studies and activities in this sector, the data was considered to be sufficiently reliable. The evaluators used the monitoring and baseline data while taking into consideration the baseline adaptation after the decline in the market resulting from the Covid-19 pandemic (GIZ, 2025b). Several indicators at output level (i.e. 1.4, 1.5, 2.4, 2.5, 3.1 and 3.2) were not monitored through the EnDev monitoring system. Their sources of verification were delivered by the project team during the evaluation mission.

Secondary data

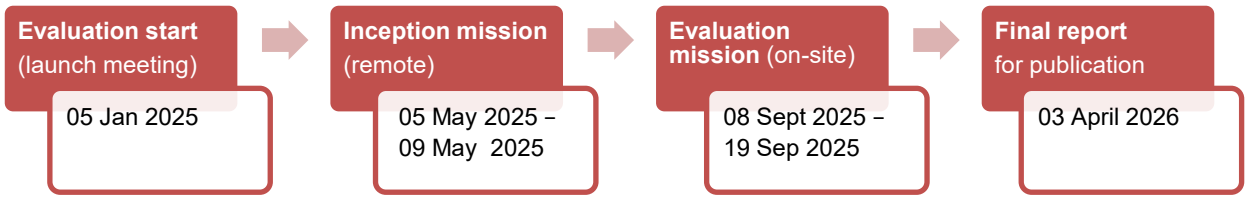
All indicators, both at outcome and output levels, were very specific to the project and therefore did not require any in-depth analysis of secondary information such as official statistics or other data. However, in order to calculate the degree to which certain indicators have been achieved, the project's monitoring system used secondary data from partner institutions, e.g. the statistical average of the country-specific size of a household.

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 within the evaluation team;
- (semi-)remote evaluation, and
- context and conflict sensitivity within the evaluation process.

Figure 2: Milestones of the evaluation process



Involvement of stakeholders

Right from the start of the evaluation, the process was strongly participatory. Key staff working in the project from Kenya, Senegal and the global office actively participated in the four half-day virtual inception workshops. These sessions provided extremely valuable information and context to the project, how it was implemented, as well as clarifications on areas that were grey. In between the inception workshops, some interviews were held with representatives from GIZ, BMZ and GCF. These interviews served to gain from their knowledge of the project and to understand and take their evaluation interests into consideration.

Fieldwork entailed interviews with GIZ project staff in both Senegal and Kenya, political partners, implementing partners in both countries, selected beneficiaries (including producers, artisans, installers, distributors and stockists). In addition, discussions were also held with staff from the county (Kenya) and regional (Senegal) governments. The evaluators attended the project closing ceremony (Nairobi) where they interacted with a cross-section of stakeholders. Debriefing sessions with the project team at the end of the field mission (separately for Kenya and Senegal) helped to share and validate the mission findings. GIZ will take care of the organisation of the knowledge transfer of the evaluation results to partners, other stakeholders and other GIZ units (e.g. sectoral unit).

Selection of interviewees

The evaluation team included a wide range of stakeholders in the evaluation. The interviewees were selected in a participatory manner with active involvement from GIZ project staff. Interviewees were chosen based on the following criteria to ensure a diverse and representative selection:

- Involvement in project activities;
- Diversity of stakeholder groups (public, private, civil society, donor community);
- Knowledge of the sectoral and political context; and
- Directly benefiting from project activities (direct target groups).

In the analysis presented in the results, references and quotes attributed to the interviewees is presented but anonymised in accordance with data protection requirements, through the use of an ‘interview coding list’.

Table 3: List of evaluation stakeholders and selected participants

Organisation/company/ target group	Overall no. of persons involved in the evaluation (including gender disaggregation)	No. of interview participants	No. of focus group participants
Donors			
BMZ	4 (1f, 3m)	4 (1f, 3m)	
German Embassy Nairobi	1 (1f, 0m)	1 (1f, 0m)	
GCF	2 (2f, 0m)	2 (2f, 0m)	
GIZ			
GIZ project team Senegal	5 (2f, 3m)	5 (2f, 3m)	
GIZ portfolio manager	1 (1f, 0m)	1 (1f, 0m)	
GIZ project team Nairobi	12 (6f, 6m)	12 (6f, 6m)	
GIZ country director Kenya	1 (0f, 1m)	1 (0f, 1m)	
GIZ project director (online)	1 (0f, 1m)	1 (0f, 1m)	
GIZ cluster coordinator Kenya	1 (1f, 0m)	1 (1f, 0m)	
Project team (coordinator of output 3)	1 (1f, 0m)	1 (1f, 0m)	
Partner organisations (direct target group)			
National Treasury, Kenya	1 (1m)	1 (1m)	
Ministry of Energy and Petroleum, Kenya	2 (1f, 1m)	2 (1f, 1m)	
Ministry of Environment, Climate Change and Forestry, Climate Change Directorate, Kenya	3 (2f, 1m)	3 (2f, 1m)	
Mercy Corps (incl. E4I, Practical Action),	6 (2f, 4m)		6 (2f, 4m)
Kenya Tea Development Agency (KTDA) Foundation; DeKUT; Strathmore Energy Research Centre Kenya, Green Belt Movement, Strathmore University	8 (5f, 3m)		8 (5f, 3m)
Ministère de l'Energie, du Pétrole et des Mines (MEPM), Sénégal	2 (1f, 1m)	2 (1f, 1m)	
Ministère de l'Environnement et de la Transition Écologique (METE), Sénégal	1 (1f, 0m)	1 (1f, 0m)	
Concept, Enda Ecopop, Enda Energie, Senegal	4 (2f, 2m)		4 (2f, 2m)
Chamber of Crafts Diourbel	1 (1f, 0m)	1 (1f, 0m)	
Regional office for the environment and classified establishments (online)	1 (1f, 0m)	1 (1f, 0m)	
Other stakeholders (e.g. public actors, other development projects)			
Clean Cooking Association Kenya (CCAK), Improved Stoves Association Kenya (ISAK)	2 (1f, 1m)	2 (1f, 1m)	
Industrial Research and Development Institute (KIRDI), Kenya	3 (2f, 1m)	3 (2f, 1m)	

Organisation/company/ target group	Overall no. of persons involved in the evaluation (including gender disaggregation)	No. of interview participants	No. of focus group participants
County directors	10 (1f, 9m)		10 (1f, 9m)
County government of Kakamega	4 (0f, 4m)		4 (0f, 4m)
Bureau de Mise à Niveau	2 (2f, 0m)	2 (2f, 0m)	
Senegal services	1 (0f, 1m)	1 (0f, 1m)	
Universities and think tanks			
Centre d'Études et de Recherches sur les Énergies Renouvelables (CERER)	1 (0f, 1m)	1 (0f, 1m)	
Civil society and private sector actors			
Producers Kenya	8 (5f, 3m)	8 (5f, 3m)	
Wholesalers, Retailers, LMEs in Kenya	5 (5m)	5 (5m)	
Technical Vocational Centre	2 (1f, 1m)	2 (1f, 1m)	
Installers Kenya	2 (1f, 1 m)	2 (1f, 1 m)	
ICS users and households Kenya	2 (1f, 1m)	2 (1f, 1m)	
Artisanal stove Producers Thiaroye, Senegal	1 (0f, 1m)	1 (0f, 1m)	
Artisanal stove producer Parcelles Assainies Senegal	1 (0f, 1m)	1 (0f, 1m)	
Professional stove producer Sebikotane Senegal	4 (2f, 2m)	4 (2f, 2m)	
Business class stove producer Bargny Senegal	2 (1f, 1m)	2 (1f, 1m)	
Business class stove producer Diamniadio Senegal	1 (0f, 1m)	1 (0f, 1m)	
Site visit plasma cutter Senegal	1 (0f, 1m)	1 (0f, 1m)	
LMEs Mbour Senegal	1 (1f, 0m)	1 (1f, 0m)	
LMEs Kaolack Senegal	1 (1f, 0m)	1 (1f, 0m)	
Wholesaler Kaolack Senegal	1 (0f, 1m)	1 (0f, 1m)	
Wholesalers, Kaolack Senegal	1 (0f, 1m)	1 (0f, 1m)	
GIE artisan potters	1 (0f, 1m)	1 (0f, 1m)	
GIE Women potters	4 (4f, 0m)	4 (4f, 0m)	
Women promotion groups in Senegal (Malika)	1 (1f; 0m)	1 (1f; 0m)	
Women promotion groups in Senegal	4 (4f)	4 (4f)	
Installers Senegal	1 (f or m)	1 (f or m)	
ICS user Senegal	1 (1f, 0m)	1 (1f, 0m)	

Data analysis process

The evaluators reviewed and analysed various project documents, regional strategies, and other relevant project documents. The documents were assessed against the evaluation questions. The evaluators also collected views of selected project beneficiaries from target interviewees during the evaluation mission using in-depth interviews and focus group discussions (FGDs). The evaluators developed semi-structured interview guidelines formulated from the questions listed in the evaluation matrix for each target interviewee or groups of interviewees (see annex 1). The quality of the data collection instruments was assured by applying the 'four-eyes' principle.

Data from the interviews was anonymised using codes. Evaluators analysed the qualitative information by assigning them to the different evaluation criteria, dimensions and questions. Quantitative data stemming from the project monitoring was analysed descriptively. Data obtained by document analysis was triangulated with opinions of the evaluation stakeholders.

Roles within the evaluation team

The evaluation team was comprised of an international evaluator, Mr Josef Seitz, and two local evaluators – Mr Bell Okello (Kenya) and Mr Matar Sylla (Senegal). Mr Seitz is an international expert in the field of environment, climate change, energy, waste management and sustainable economic development. He has more than 30 years of experience in designing, supporting, managing and evaluating international projects of varying size, scope and complexity. The international evaluator is experienced in the design, management and implementation of various types and topics of evaluation projects and is knowledgeable about the specific requirements of international donors and GIZ. As team leader, the international evaluator is responsible for ensuring a sound methodology, data collection and analysis, major parts of the reporting, and quality assurance, and served as contact person for the client. Dr Okello is a natural resources management, gender and rural development expert. He has more than 25 years' experience in designing, managing and evaluating various projects of varying sizes in Eastern and Southern Africa. The evaluator brought knowledge, skills and experience in evaluation of natural resources and climate change and adaptation projects. Mr Matar Sylla is a civil engineer and specialist in domestic and industrial biomethanisation. Given their combined expertise in project management, evaluation and local governance, the three evaluators were well-positioned to assess this project effectively. The local evaluators brought expertise in local livelihood dynamics, environment and natural resources management, climate change, as well as local and regional experience in working with national authorities in Kenya and Senegal. The local evaluators participated in the field evaluation mission, supported the data analysis and contributed to the evaluation report, its annexes and corresponding revisions.

(Semi-)remote evaluation

The evaluators explored all possible avenues to interview the selected stakeholders. Physical interviews were preferred, but provision was made for virtual interviews (using Teams). Some remote interviews were mostly held with senior staff, who could not be physically reached during mission because of their location (outside field mission countries).

Context and conflict sensitivity within the evaluation process

During the entire evaluation period including the field mission, there were no potential or apparent risks that would in any way affect the evaluation. The mission in Kenya encountered an opportunity that enabled the evaluators to meet many project stakeholders during the official project closing ceremony. In Senegal, the main project stakeholders were met during field visits and online interviews.

Photo 1: Stove production site in Rufisque, Senegal (Source/© : Josef Seitz, 2025)



4 Assessment according to OECD DAC criteria

4.1 Impact and sustainability of predecessor projects

No predecessor project is part of the evaluation because a predecessor project did not exist.

4.2 Relevance

This section analyses and assesses the relevance of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

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	30 out of 30 points
	Alignment with the needs and capacities of the beneficiaries and stakeholders	28 out of 30 points
	Appropriateness of the design*	18 out of 20 points
	Adaptability – response to change	18 out of 20 points
Relevance total score and rating		Score: **94 out of 100 points** Rating: **Level 1: highly successful**

A review of project documents and donor strategies, coupled with findings from interviews with various stakeholders found the project to be well aligned with the policies and priorities of the donors. The project aligned fully with the strategies of GCF on climate change, Paris Agreement and BMZ strategy. It was very well aligned with the global development community's goals focused on reducing GHG emissions, especially carbon dioxide, which is a central Pillar of the Paris Agreement. Biomass is used as the main source of cooking energy by the majority of households in both Kenya (55% to 75%) and Senegal (45%). The ICS promoted stove technologies that beneficiaries and stakeholders found to be more efficient (less cooking time), use less wood (by between 30–66%), have less smoke, are cleaner (less dirty, less ash), safer (no fire accidents reported), and save them money (they buy less firewood). The project was strongly aligned with donor priorities, including GCF, Paris Agreement, BMZ strategies, and it was well aligned with SDGs 3, 5, 7, 13 and 15.

In total, the relevance of the project is rated as highly successful (level 1), with 94 out of 100 points.

Analysis and assessment of relevance

Relevance dimension 1: Alignment with policies and priorities

The ICS project in Senegal and Kenya aimed to reduce dependence on woody biomass for cooking, aligning with the priorities of project donors such as GCF, BMZ as well as other donors World Bank, FAO, Denmark, Belgium, Switzerland, Netherlands, Norway, Sweden, and the UK's Foreign, Commonwealth & Development

Office (FCDO) (Int_4 with donor; Int_8 with GIZ; Int_6 with GIZ). They emphasised climate mitigation, gender equality, social inclusion, and alignment with UN SDGs 7, 3, 5, 13, and 15 (UNDP, 2015; World Bank, 2015). The project supported BMZ's priorities by (Int_8 with GIZ):

- Environmental protection: reducing deforestation and emissions from traditional biomass;
- Economic development: creating local jobs in stove manufacturing and distribution, especially for women and youth;
- Gender equality: improving women's health and income opportunities.

The project supported the GCF Strategic Plans (2020–2023; 2024–2027) and its mitigation goals by replacing traditional biomass cooking with ICS, which have a global mitigation potential of 0.6–2.4 Gt CO2eq/year, contributing to limiting warming below 2°C (IPCC, 2018; GCF, 2020, 2023). It advanced energy access and gender equity by providing low-emission cooking solutions mainly to women (Int_4 with partner; GCF, 2025a; GoK, 2020; Republic of Senegal, 2020) and supported the NDCs of Kenya and Senegal in expanding clean cooking initiatives (Int_8 with GIZ). By strengthening ICS markets, the project built local capacity and enhanced climate resilience, aligning with the GCF's country-driven approach (UNFCCC, 2025; GCF, 2019). It has generated jobs, with about half benefiting women, supporting GCF's co-benefits of economic growth, gender empowerment, and sustainable development (EnDev, 2024; GCF, 2019).

The initiative represented a paradigm shift through sustainable market development, results-based financing, and local production capacity building, reflecting GCF's transformational change agenda. It showed strong country ownership, aligned with national climate goals (UNDP, 2015), and delivered broad sustainable development co-benefits such as improved health, women's empowerment, and green job creation. By attracting private investment and ensuring financial sustainability, the project fulfilled GCF's investment criteria of climate impact, transformation, inclusiveness, and efficiency (Int_11 with GIZ, Int_1,4 with donor).

In Kenya, the project integrated digital tools for stove monitoring, carbon credit tracking, and mobile engagement, supporting the Kenya National Energy Policy (2018) and Clean Cooking Behaviour Change Communication Strategy (2022) (BMZ, n.d.a, n.d.b, Kenya; Int_4 with partner). For example, a data centre at Konza Technopolis enabled real-time tracking of stove performance.

In Senegal, it was aligned with the Senegal 2050 Programme, which promotes sustainable energy transformation and transitions from wood to charcoal in rural areas, as well as increased butane use in urban areas. This reduces total wood consumption (SEMIS, 2025a).

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

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

The ICS project in Kenya and Senegal effectively addressed the needs and capacities of its target groups, aligning with the project's objectives and the broader ICS framework.

The project targeted two main beneficiary groups: (a) direct beneficiaries, technical and managerial officers from executing entities, producers, distributors, consumers and associations such as Improved Stoves Association of Kenya (ISAK) and Clean Cooking Association of Kenya (CCAK); and (b) indirect beneficiaries, mainly rural populations with limited access to clean cooking solutions (GIZ, 2024f; 2025g; GCF, 2025c).

Comprehensive training needs assessments and cookstoves-relevant studies were conducted to understand stakeholder capacities, business contexts, and socio-economic dynamics, complemented by reviews of past initiatives like EnDev and Kenya Energy and Environment Organisation (KENGO) (FGD_1 with partner; Int_4 with partner). These assessments ensured that interventions were tailored to the operational realities of the ICS ecosystem.

In Kenya, the project built on a pool of existing enterprises producing both project-promoted stoves, e.g. Jiko Kisasa as well as the Kenya Ceramic Jikos. The project supported their professionalisation through technical

training, business development, and quality improvement measures. This led to reduced production costs and improved stove performance (Int_6, 10 with GIZ; Int_5, 7 with private actor). The project also worked with the Ministry of Energy technical arm Rural Electrification and Renewable Energy Corporation (REREC) managed energy centres across the country to act as both grassroots capacity building centres and distribution points for ICS (Int_8 with GIZ).

In Senegal, the project strengthened the Diambar stove production network, which was already active in local markets. It supported artisanal and semi-industrial producers in regions such as Kaolack, Thiès and Dakar, providing training on standardised production techniques, quality control and financial management (FGD_4, 5 with partners; Int_2, 10, 14, 21, 23, 25, 26 with private actors). The project also facilitated partnerships between producers and microfinance institutions to improve access to credit for scaling production. Additionally, the project collaborated with the Ministry of Environment and Ecological Transition (METE) and local cooperatives to expand distribution networks, ensuring that improved stoves reached rural households. Pilot programmes in Fatick and Kaolack demonstrated increased adoption rates and reduced wood consumption, confirming the project's relevance to local energy needs (GIZ, 2025a).

The professionalisation approach across both countries led to the emergence of 58 business class producers, improved stove quality, enhanced production efficiency and enhanced stove distribution channels, confirming strong alignment with beneficiary needs and capacities (Int_6, 10 with GIZ; GIZ, 2025a, GCF, 2025d; GCF, 2025e).

The ICS project in Kenya and Senegal integrated capacity building across all components, tailoring interventions to the specific needs of producers, distributors, institutions, and end users. Training sessions covered production techniques, ceramic insert manufacturing, management, QHSE (Quality, Health, Security, and Environment), marketing, and digital communication tools such as TikTok and Instagram (Int_6 with GIZ; Int_2, 3, 4, 13, 14, 18, 20, 21, 22, 26 with private actor; FGD_1, 2 with private actor). These activities were central to achieving project objectives and strengthening the ICS ecosystem.

In Kenya, collaboration frameworks were formalised through Memoranda of Understanding between service providers and producers, promoting coaching and business development (Int_6, 8 with GIZ). The project supported the creation of an ICS curriculum, in close collaboration with the Technical and Vocational Education and Training Authority (TVETA) and the accrediting body, the National Industrial Training Authority (NITA), institutionalising technical training for long-term sector growth (Int_1 with private actor).

In Senegal, institutions such as CERER and the Bureau de Mise à Niveau delivered training in production, management, finance, and business planning (Int_3, 6 with partner). The project also facilitated access to financing through partnerships with local FI (Int_3 with partner). Producers contributed in-kind providing tools, constructing workshop bases, and insuring transport vehicles demonstrating ownership and capacity (Int_2, 4, 10, 14, 18, 21, 22, 23, 26 with private actors).

For women users, the project ensured stove designs met household needs. Women reported that ICS were more efficient, cooked faster, and reduced firewood use by 30–66%, while producing less smoke and dirt (Int_5, 7, 10, 13, 14, 23 with private actor; FGD_1 with private actor). Portable stoves allowed cooking during farming activities, and no burn accidents were reported. Affordability and ease of use were key factors driving adoption (Int_5, 7, 25 with private actors; FGD_1, 2 with private actors).

Users in both countries reported using ICS for all meals due to faster cooking times, with some households supplementing with gas only for reheating (Int_7, 12, 16 with private actor; Int_13 with private actor). This contributed to significant reductions in wood consumption and improved household air quality. These developments, combined with the increasing use of butane gas in urban areas, have also led to an 8% reduction in total wood consumption, thereby easing pressure on forest resources (SEMIS, 2025a). However, in the coastal regions of Kenya, end users (mostly women) preferred the mobile cookstove units to the permanently installed ones, because their cultural and religious practices demand the position of stoves to

change with seasons (FGD_3 with partner). The installers were responsive to these needs even as more sensitisation efforts were directed to create more awareness on the issue.

In Senegal, the EnDev Multifunctional Platforms Project Monitoring and Evaluation Model was used to assess the quality of access to cooking energy systems and to provide policymakers with a practical tool with which to estimate the potential benefits of implementing strategies that promote large-scale access to ICS. Between 2022 and 2025, notable progress was recorded, with improvements made in five key areas of access quality for ICS end users: availability, affordability, exposure, safety and convenience (GCF, 2025c).

Bensch and Peters' studies in rural Senegal (Bensch & Peters, 2014, 2016, 2017) demonstrated that ICS deliver significant benefits and can achieve sustained adoption when supported by effective distribution strategies. The 2014 trial reported continued use, a 30% reduction in firewood consumption, considerable time savings, improved women's health, and notable environmental benefits. The 2017 study found that free stove distribution increased long-term willingness to pay by up to 25%, indicating that awareness and user experience stimulate market development despite access barriers. The 2016 research highlighted that personalised, door-to-door marketing and flexible payment options substantially boosted willingness to pay, underscoring the importance of user engagement and tailored sales strategies in scaling clean cooking technologies. Building on these insights, project implementation strategies adopted targeted approaches that strongly integrated LNOB (leave-no-one-behind) principles, including LMEs, mobile caravans and promotional campaigns, particularly in remote areas.

The project also aligned with national and regional policies. In Kenya, it supported the clean cooking transition strategy emphasising electric cooking while acknowledging fuelwood's continued role (Ministry of Energy and Natural Resources (MENR), 2019; MoEP, 2024). MoEP also credited the project with the creation and establishment of the Clean Cooking Implementation Unit, an entity domiciled within the Ministry of Energy tasked with the implementation of the national cooking transition strategy (Int_4 with partner). In Senegal, it contributed to governance reforms through the establishment of a dedicated clean cooking agency and adoption of a domestic fuels strategy (SEMIS, 2025b).

Overall, the interventions were relevant, demand-driven, and well within the capacities of beneficiaries, confirming strong alignment between project design, stakeholder needs, and national energy transition goals.

Relevance dimension 2 – Alignment with the needs and capacities of the beneficiaries and stakeholders – scores **28 out of 30 points.**

Relevance dimension 3: Appropriateness of the design

The project design drew on lessons from earlier EnDev/GIZ initiatives, applying a participatory approach to address gaps in the clean cooking sector and to professionalise stove producers (Int_1, 4 with donor). Its overarching aim was to establish a business-oriented, market-driven ICS ecosystem capable of large-scale, cost-effective, and high-quality production and distribution (FGD_5 with partner; Int_4, 8 with partner).

The project design aligned with partner priorities by:

- *Supporting NDC targets:* Recognising household cooking as a major GHG source and positioning ICS as a contributor to emission reduction goals (Int_4, 8 with partner).
- *Promoting sustainable cooking solutions:* Delivering efficient, durable, and affordable stoves for low-income households (Int_8, 13 with GIZ).
- *Professionalising the ICS ecosystem:* Focusing on quality, inclusivity, job creation, and income growth (FGD_1, 2 with partners).
- *Strengthening enabling environments:* Assisting national and regional governments to develop energy strategies and embed sustainability into governance (Int_4, 8 with partners; FGD_3, 6 with partners).

The project was appropriately designed as it took into consideration the socio-economic and political dynamics and was in harmony with local and national aspirations. Evidence for this includes: the project supported the

professionalisation of cookstove value chain actors, integrated clean cooking into county energy plans in Kenya; it worked closely with REREC managed energy centres across the country to act as both grassroots capacity building centres and distribution points for ICS; and the project engaged with county governments to promote the uptake of ICS (Int_2 with partner).

In Senegal, the project strengthened the Diambar stove production network and collaborated with CERER and the Bureau de Mise à Niveau to train producers in production, management and finance (Int_3, 6 with partner). It also supported adoption of a domestic fuels strategy, embedding ICS into national energy governance and the future creation of a national clean cooking agency (SEMIS, 2025b; FGD_1, 2 with partners).

Implementation was decentralised, with separate management teams for Kenya, Senegal and the global component managed from GIZ Headquarters, improving responsiveness to local contexts (Int_3, 4, 9, 12 with GIZ). The executing agency (GIZ) applied a multi-sectoral approach, engaging ministries, universities and technical partners through regular stakeholder meetings and advisory boards (Int_6, 11 with GIZ; FGD_1–5 with partners).

Across both countries, the project promoted gender inclusion and youth participation, though it primarily targeted actors already active in the ICS value chain (Int_4, 8 with GIZ; Int_4 with partner). End users benefited from affordable, efficient and durable stoves, which met household needs for cost-effectiveness and ease of use (Int_,7, 10, 12, 14, 25, 27 with private actors).

For the direct beneficiaries, the design integrated in-kind funding of up to EUR 3,000 for tools and equipment, reinforcing ownership and sustainability (Int_6, 11 with GIZ; FGD_2 with partner; Int_3, 4, 8, 13, 20, 26 with private actors). The beneficiaries of the tools, equipment and performance-based incentives (who were identified by the project as the best performing entrepreneurs focusing on professional and business class producers and distributers) were awarded according to performance-based incentives in the investment packages category (as described in the Operations Manual) readily paid for their in-kind contributions, confirming their capacities to implement the activities.

The project was implemented through a network of specialised national organisations and universities, leveraging their technical strengths to manage complex activities and adapt to emerging needs (FGD_1, 4 with partner; Int_4, 8 with GIZ; FGD_1, 2 with partners). Implementation was overseen by the Project Steering Committees and Project Implementation Units to coordinate with the Ministry of Energy and TVETA (Int_8 with GIZ; Int_4, 8 with partner). These structures ensured alignment with national clean cooking and climate strategies. This collaborative design enhanced legitimacy, participation and sustainability.

In Senegal, the Designated National Entity coordinated an inter-ministerial agreement involving the Ministries of Foreign Affairs, Agriculture, Finance, Economy, and Energy, ensuring seamless implementation across clusters (Int_6 with GIZ). The project reached 8,000 villages, expanding access to clean cooking technologies and strengthening local production networks (Int_13 with GIZ).

In Kenya, implementation involved partnerships with universities and technical institutions to train and mentor MSMEs in production efficiency, quality control and marketing. The project covered 40 counties, supporting producers of Kenya Ceramic Jikos and addressing bottlenecks such as weak financial linkages, limited end-user awareness, and labour-intensive production (Int_8 with GIZ; Int_4, 9, 14, 18, 19, 21, 24, 26).

The project design enabled it work with and through the Ministry of Energy and Petroleum (MoEP) and the National Treasury by responding to the identified needs and challenges including the development of clean cooking policies and strategies (Int_4, 5 with partner), and equipping the MoEP technical arm REREC managed energy centres across the country and development of county energy plans.

Appropriateness of the design was also evidenced by the tools developed to report the NDCs (FGD_3 with partner; Int_8 with GIZ). The design ensures that the MoEP will continue monitoring GHG emissions through

ICS sales until 2030 (Int_4, 7 with partner). However, delays in contracting the MoEP and bureaucratic challenges affected implementation timelines (Int_GIZ; Int_4, 5 with partner).

In Senegal, the project supported the update of the National Domestic Fuels Strategy, aligning it with clean cooking and climate goals (Int_8 with GIZ; Int_9 with partner). It also developed a comprehensive monitoring, evaluation and reporting (M&E) system, initially manual but later transitioning toward digital tools. Some implementing partners were slow to adapt, continuing to use manual sales records verified by consultants (Gumz, 2025; Int_4, 8 with GIZ).

This project integrated exit and sustainability strategies to ensure continuity beyond project closure. The design was policy-anchored, linking ICS to national climate, energy and socio-economic agendas, and promoting government ownership rather than donor dependency (Int_4, 5 with partners). Post-project, monitoring and reporting of ICS sales for NDC tracking were transferred to the respective ministries, though evaluators noted risks of implementing this due to potential funding and capacity gaps (Int_4 with partner).

Other gaps or challenges that came to light include unused equipment among a few beneficiaries ostensibly because of space constraints (they planned to relocate the businesses to more spacious places), limited reach in remote areas, and short timelines for beneficiary co-financing – where time given for beneficiaries to raise co-financing was too short for them to accomplish (GIZ, 2025o; Int_4, 11 with partner; Int_27 with private actor).

In Kenya, a key implementation challenge was the limited availability of suitable clay for producing ICS liners in some areas like the coast region and also some parts of the western region. Producers in several regions had to travel over 20 km to access appropriate clay deposits, increasing production costs and time (Int_9, 23, 27 with private actors; FGD_3 with partner). Additionally, high breakage rates of liners during kiln firing led to material waste, prompting recommendations for innovative recycling machines to reuse broken liners. In Senegal, while clay availability was less constrained, similar concerns were raised about the capacity of the Ministry of Energy to sustain post-project monitoring due to potential funding and logistical limitations (Int_8, 9 with partner).

Despite challenges, the project demonstrated strong institutional ownership and policy integration, with active participation from the MoEP (Kenya) and the Ministère de l'Énergie, du Pétrole et des Mines (MEPM) (Senegal). Its participatory, multi-sectoral design strengthened the ICS ecosystem, expanded market reach, and improved production and distribution capacities. By advancing professionalisation, policy integration and climate alignment, the project contributed significantly to national clean cooking transitions in both countries.

Relevance dimension 3 – Appropriateness of the design – scores **18 out of 20 points.**

Relevance dimension 4: Adaptability – response to change

This dimension assesses the extent to which the project adapted to the challenges brought about by changes in the framework conditions, including the Covid-19 pandemic and other global issues such as supply chain disruptions, world market price increases and the war in Ukraine.

The ICS project demonstrated strong adaptability by adjusting implementation modalities, strengthening local production capacity, diversifying supply chains, and embedding resilience measures. These actions ensured continuity of training, stove production, and distribution despite shocks to mobility, commodity prices and household purchasing power.

The most consequential adaptation occurred during the pandemic. Like many initiatives at the time, the ICS project faced severe disruptions. Activities were reduced to the essential minimum, conserving resources while implementation plans were refined. Meetings, consultations and advisory activities shifted to virtual formats, and many continued online even after restrictions were lifted due to efficiency gains (Int_4 with donor; Int_3, 6, 8, 10, 13 with GIZ).

Covid-19 affected both supply and demand. Producers struggled with liquidity shortages, staff layoffs and raw material access, while households redirected spending to essentials, reducing stove purchases. In response, the project recalibrated strategies: reassessing intervention intensity, facilitating access to working capital and raw materials, and linking ICS promotion to health campaigns. Adjustments included revising eligibility criteria for producer support, providing bridge financing, and launching targeted awareness initiatives such as the 'Buy-1-Get-2' campaign (FGD_2, 4 with partner). These measures cushioned setbacks, sustained the ICS value chain, and reinforced long-term resilience (GIZ coordination call, May 2020).

Procurement was also adapted by sourcing less expensive inputs of similar quality (Int_8 with GIZ). The project reduced the number of equipment, tools and incentives provided to beneficiaries, adopting a frugal approach without compromising deliverables (Int_6, 8, 10, 13 with GIZ).

The war in Ukraine indirectly affected implementation in Kenya and Senegal through energy and commodity price increases. In Kenya, higher inflation and energy costs reduced affordability of inputs, with recovery in 2024 constrained by public debt and import reliance (inflation ~7%, GDP growth 5%). In Senegal, earlier import disruptions eased as prices stabilised and local production strengthened, with inflation falling to ~4% and growth rebounding to 8.9%, creating a more favourable environment (GCF Annual Report, 2024).

In Kenya, bureaucratic delays at the National Treasury affected projects funds disbursement to the MoEP. The project responded by directly supporting MoEP staff to implement agreed activities, though this increased the management burden (Int_8 with GIZ; Int_4, 5 with partner). To meet emerging political requests, the project supported development of the Kenya National Cooking Transition Strategy (Int_8 with GIZ; Int_4 with partner). Both Kenya and Senegal had TVET systems but lacked curricula for ICS production. To address this, the project worked with various stakeholders including ICS entrepreneurs, technical colleges to design a 'Technical and Business Development Curriculum for Capacity Building Improved Cookstove Entrepreneurs' and its value chains, to be adopted by vocational training centres. The curricula is in the piloting phase (Int_1 with private actor) under the guidance of the accrediting agency, NITA (Int_1 with private actor; Int_8 with GIZ). Monitoring data also revealed inefficiencies in liner production. To improve efficiency, partners introduced innovations such as advanced kilns and soil mixers that are ergonomically friendly, developed by DeKUT (Int_8 with GIZ; FGD_1, 4 with partners).

Adaptation to local contexts included social engineering measures. For example, in Senegal, tontines were used to overcome financial barriers to stove purchases (FGD_2 with partner).

Overall, the project adapted effectively to global and local shocks. By recalibrating interventions, embedding resilience, and innovating in training and production systems, it sustained progress in the ICS value chain and reinforced the long-term resilience of the clean cooking sector in both Kenya and Senegal.

Relevance dimension 4 – Adaptability – response to change – scores **18 out of 20 points.**

Methodology for assessing relevance

Table 5: Evaluation matrix for OECD DAC criterion relevance

Relevance assessment dimensions	Basis of assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
Alignment with policies and priorities	Extent to which the project objectives and design are consistent with the UN Agenda 2030, GCF strategic plan, BMZ country strategy, development and sector strategies of Kenya and Senegal • Project proposals and progress reports • Paris Agreement 2015 • Agenda 2030 (SDGs) • GCF Strategic Plan 2024-2027	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions (see annex). **Empirical methods and data sources:** • Analysis of project documents: GCF funding proposal, GCF	• Quality and reliability of project documents were sufficient • Relevant data was available and of good quality • Collection of additional information from partners and stakeholders was done • Data quality from interviews and FGD was good

	• BMZ's Programme of Action on Climate Change and Development • BMZ's Climate Policy in the Context of 2030 Agenda • Nationally Determined Contribution (NDC) for Kenya and Senegal • Climate Change Strategy and Action Plan, Climate Action Plan for Kenya and Senegal • National energy policies • National adaptation plans • National strategies on improved cook stoves	feasibility study, result matrices and logframes, progress reports (GCF, BMZ) • Semi-structured interviews with key stakeholders, in particular target groups (were conducted on a face-to-face basis as well as online through zoom/ Teams) • FGDs with relevant stakeholders • Triangulation with opinions of key stakeholders	• Due to time constraints and the large areas under implementation, evaluators were not able to undertake interviews in all project regions or clusters Overall data quality for this assessment dimension: strong
Alignment with the needs and capacities of the beneficiaries and stakeholders	Extent to which the project objectives are aligned with the needs and capacities of its target groups as follows: The beneficiaries and stakeholders of the project are divided into two categories: • Direct target groups: producers, intermediaries, local FI, national and local government institutions, NGOs and women's groups at the local level, universities, media, training institutions • Indirect target groups: ICS users in particular women beneficiaries, women-headed households Which measures have been implemented for a LNOB strategy? • Affordability measures (cross-subsidies, microcredit, instalments, integration into social safety nets) for vulnerable households • Physical and geographical accessibility (distribution in remote areas, adapted logistical resources) • Socio-cultural accessibility (local stoves, local leaders and groups, awareness in local languages)	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions **Empirical methods and data sources:** • Analysis of project documents: GCF funding proposal, GCF feasibility study, result matrices and logframes, progress reports (GCF, BMZ) • Semi-structured interviews with key stakeholders, in particular target groups (to be conducted on a face-to-face basis as well as online through zoom/teams) • Where possible FGDs with relevant stakeholders • Triangulation with opinions of the key stakeholders	• Project documents provided were of good and consistent quality • Quality of data from the documents and interviews with stakeholders was of very good quality • Main limitation was time constraint. Evaluations were not able to cover as many implementation clusters as was desired Overall data quality for this assessment dimension: strong
Appropriateness of the design	Extent to which the following questions are addressed: • To what extent were the planned activities aligned to addressing the identified problems and challenges? • Did the design take into consideration contextual socio-economic and political dynamics? • Were the planned and implemented activities in harmony with local and national aspirations? • Did the plans and activities take into consideration the identified and documented supply and demand side needs?	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions. **Empirical methods and data sources:** Source as used above	• Project documents including proposals and reports were of excellent quality to assess the design • Review of GoK and GoS strategies and plans on cooking energy provided reliable information • Availability, content and reliability of data from respective Ministries of Energy in (Ke and Se) • Data collected from stakeholders provided rich information, corroborating assessments from project documents Overall data quality for this assessment dimension: good
Adaptability – response to change	Extent to which the project responded to changes in the environment over time (risks and potentials)? • GCF Project proposal and progress reports • BMZ modified proposals	**Evaluation design:**	• Reports on changes made during the project were clear and satisfactory • Additional activities the project engaged in at requests of political partners

	• Potential changes include: • Covid pandemic • War in Ukraine • Shifts in political priorities • Supply chain issues • World market price increases; etc.	The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions (see annex). No specific evaluation design will be applied. **Empirical methods and data sources:** Data sources as above	were of good clear and reliable quality • Additional data collected from stakeholders confirmed information contained in the project documents Overall data quality for this assessment dimension: good

Conflict sensitivity in the project design

Table 6: Dividers/escalating factors in the project context

Which dividers/escalating factors were identified in the project context?	Addressed by the project? (yes/no)	If addressed, how is it considered by the project design?
Development of a sustainable collaborative framework for public and private stakeholders to monitor market trends (Senegal)	Yes	The project attempted to address the issue by establishing its own collaborative framework. However, at a regional level, there is already a framework in place for monitoring projects that have undergone environmental impact assessments. This would have been a more appropriate approach, as it has a stronger and more sustainable institutional foundation.
One President of Chamber of Crafts refused to join the project (Senegal)	No	

4.3 Coherence

This section analyses and assesses the coherence of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

Summarising assessment and rating of coherence

Table 7: Rating of OECD DAC criterion coherence

Criterion	Assessment dimension	Score and rating
Coherence	Internal coherence	50 out of 50 points
	External coherence	45 out of 50 points
Overall score and rating		Score: **95 out of 100 points** Rating: **Level 1: highly successful**

The ICS project implemented in Kenya and Senegal was one of the largest commitments to support the respective countries attain their NDC, and the first to do so through a market-oriented system through professionalisation of the most used cooking stoves. At the donor level, the project showed strong coherence with BMZ strategies and frameworks in both countries, e.g. BMZ's Development Policy 2030 and the Marshall Plan with Africa. The GCF and BMZ have aligned climate goals, making project implementation smooth and supporting key German cooperation themes. ICS directly supported BMZ's strategy Responsibility for Our Planet – Climate and Energy, focusing on climate change mitigation and energy access. By reducing emissions from household cooking, it contributed to BMZ's broader climate portfolio and the Paris Agreement's 1.5°C goal. The ICS project complemented other German development interventions in Kenya and Senegal by aligning with BMZ's climate and energy priorities, building on EnDev's clean cooking work, and dovetailing with

GCF-funded programmes. It strengthened Germany's broader portfolio by professionalising stove producers, embedding clean cooking in national strategies, and linking to initiatives on climate mitigation, energy access and job creation. Internationally, the ICS project complemented Germany's engagement with platforms such as the Green Climate Fund (GCF), the Clean Cooking Alliance (CCA), Sustainable Energy for All (SE4All), the World Bank/ESMAP programme, and the Africa-EU Energy Partnership. By applying GCF principles of transformational change results-based financing, market development and inclusiveness the project strengthened Germany's credibility as a partner driving systemic energy transitions. It also advanced BMZ's cross-cutting themes of good governance, economic development, health and just energy transition, ensuring coherence across bilateral, regional and global levels. The project has improved Senegalese and Kenyan public officers' perceptions of German cooperation, led to new requests and responsibilities for BMZ and GIZ, and increased interest in clean cooking solutions.

In total, the coherence of the project is rated as highly successful (level 1), with 95 out of 100 points.

Analysis and assessment of coherence

Coherence dimension 1: Internal coherence

The ICS project demonstrated strong internal coherence by aligning its design, implementation modalities and adaptive strategies with its stated objectives, while reflecting the priorities of its funding and cooperation frameworks. Although implemented as an individual technical cooperation module and not formally integrated into Federal Ministry for Economic Cooperation and Development (BMZ) programmes, the initiative had a regional scope with specific components in Kenya and Senegal, as well as supra-regional activities (Int_1, 4 with donor; BMZ, 2023; GIZ, 2024g).

BMZ currently funds or co-funds a wide portfolio of projects in both Kenya and Senegal, implemented largely through GIZ (Int_1, 3 with donor; GIZ, 2023). These span climate and energy, agriculture and youth employment, digital transformation and governance. The ICS project complemented this portfolio by filling the household energy niche, linking climate mitigation to health, jobs and enterprise development (CCA, 2022; SE4All, 2021).

BMZ has been active in Kenya since 1975, with over 75 ongoing commissions across climate, agriculture, employment and governance. Key programmes include:

- *Energising Development (EnDev):* A multi-donor programme co-funded by BMZ and implemented by GIZ, SNV and Collaborative Labelling and Applied Standards Program. Provides access to modern cooking energy and solar systems. The ICS project built directly on EnDev's clean cooking work (BMZ, 2023; EnDev, 2024).
- *Agri Jobs 4 Youth:* Promotes agribusiness employment for young people. Complements the ICS project by strengthening rural enterprise ecosystems, including stove value chains (ceramics, metalwork, distribution) (BMZ/GIZ, 2022).
- *Digital Transformation Centre Kenya:* Funded by BMZ and the EU, implemented by GIZ. Supports Kenya's digital economy and innovation ecosystem. The ICS project complemented by embedding vocational training and digital tools for stove producers (BMZ/EU/GIZ, 2023).
- *Vocational Training and Employment Promotion:* BMZ/GIZ support TVET reforms. The ICS project dovetailed by embedding stove production into accredited curricula (TVETA/NITA).
- *Climate and Development Partnership:* BMZ supports Kenya's renewable energy expansion, aiming for 100% renewable electricity by 2030. The ICS project complemented by tackling household cooking energy (BMZ, 2023).

BMZ's reform partnership in Senegal focuses on sustainable economic development, training and employment. Major programmes include:

- *EnDev Senegal:* BMZ/GIZ programme supporting improved cookstove dissemination and modern energy services. The ICS project complemented by professionalising producers and embedding stove promotion into forestry and energy strategies (GIZ, 2021d).
- *Invest for Jobs (Senegal):* BMZ-funded, GIZ-implemented programme to increase job-creating growth for African and European companies. The ICS project complemented by creating green jobs in stove production and distribution (GIZ, 2022g).
- *Strengthening Sustainable Finance in Senegal (2025–2028):* BMZ/GIZ programme promoting climate-friendly and socially equitable financial markets. The ICS project complemented by mobilising private investment in clean cooking enterprises (GIZ, 2025p).
- *Domestic Fuels Strategy:* BMZ/GIZ support to reduce reliance on charcoal and firewood. The ICS project was embedded here, contributing directly to NDC targets and deforestation mitigation (SEMIS, 2025b).
- *Just Energy Transition Partnership:* Senegal prioritises the EnDev/GCF producer professionalism model. The ICS project complemented by demonstrating household energy's role in emission reductions (MEPM, 2025b).
- *Vocational Education and Training:* BMZ/GIZ support reforms in technical education. The ICS project complemented by formalising curricula for stove production, equipping youth with enterprise skills (GIZ, 2024i).

Together, these programmes demonstrate strong alignment with international and national aspirations, particularly the SDGs. Many are co-funded with other international development partners, reinforcing coherence across BMZ's bilateral and multilateral commitments. In addition, the project directly supported BMZ's strategy, Responsibility for Our Planet – Climate and Energy, which focuses on climate change mitigation and energy access (BMZ, 2021a).

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

Coherence dimension 2: External coherence

The evaluation assessed the extent to which the project complemented and supported partner efforts (principle of subsidiarity) and makes use of their systems. Discussions with GIZ staff and political partners confirmed that the ICS initiative aligned closely with Kenya's and Senegal's national climate goals (Int_2, 8, 11 with GIZ; Int_4, 5, 8, 9 with partner).

The project's external coherence was evident in three dimensions.

- Alignment with national climate commitments – embedding clean cooking into NDC frameworks and energy strategies.
- Advancing adoption pathways – linking ICS promotion to health campaigns, awareness initiatives, and local government mobilisation.
- Contributing to socio-economic priorities – professionalising stove production, creating jobs, and strengthening SMEs.

Kenya has launched several initiatives that align with ICS. These include the Kenya National Cooking Transition Strategy 2024–2028 (Int_4 with partner), which aims for universal clean cooking access by 2030 through a multi-fuel approach encompassing electric cooking, LPG, biogas, and improved biomass stoves. The government also supports County Energy Planning (FGD_3 with partner) and the development of a TVET curriculum for ICS (currently undergoing piloting before accreditation by TVETA and NITA) to professionalise stove production and installation. The Kenya National eCooking Strategy, led by the MoEP with support from UK PACT, MECS, GIZ and African Development Bank focuses on scaling electric cooking as a clean solution. The ICS project complemented partner initiatives such as KILMEAP (Climate-Friendly Cooking), implemented by Practical Action, EnDev and the GCF, which targets 600,000 Kenyans with efficient cookstoves to reduce emissions and health risks. It also built on EnDev's ICS work and broader climate change mitigation and

adaptation efforts. More recently, Kenya has revamped its energy centres under REREC (Int_4 with partner; Int_8 with GIZ).

In Senegal, the EnDev/GCF producer professionalism model has been prioritised within the Just Energy Transition Partnership and in designing a mixed energy approach for cooking energy access. Other energy sector projects are under development with partners such as the KLIK Foundation and Swiss Cooperation (Int_11 with GIZ).

Senegal's NDC mitigation plan aims to increase distribution of improved stoves from around 350,000 in 2016 to 800,000 per year by 2030. Including NDC+ donor contributions, this represents one of the most significant mitigation actions, with projected reductions of 35.3% in GHG emissions by 2025 and 41.2% by 2030 compared to business-as-usual scenarios (19,512 Gg CO2 in 2025 and 23,927 Gg CO2 in 2030).

Senegalese Ministry of Energy is preparing for a donor conference to mobilise support for alternative fuels such as LPG, biogas and electricity (Int_9 with partner). The Ministry of Energy in Kenya conducted resources mobilisation sessions using the investment prospectus linked to the overall cooking transition strategy under the guidance of the Clean Cooking Implementation Unit that is coordinating the implementation of the overall strategy

At the international level, the ICS project was coherent with approaches promoted by the Clean Cooking Alliance; Sustainable Energy for All (SE4All); the World Bank/ESMAP programme; and the Africa-EU Energy Partnership. The UK's FCDO supports the eCooking Capacity Building & Market Development Programme (eCAP), which underpins the Kenya National eCooking Strategy. The UK PACT Country Fund – Clean Energy Transition (2024 Call) supports innovative capacity-building projects aligned with Kenya's just energy transition, while Denmark also supports the clean cooking transition strategy.

Despite these commitments, both Kenya and Senegal face challenges: national climate strategies and NDCs are not consistently backed by full budgetary allocations (Int_4, 9 with partner), leaving implementation heavily dependent on donor support (OECD, 2021; UNDP, 2022).

Coherence dimension 2 – External coherence – scores **45 out of 50 points.**

Methodology for assessing coherence

Table 8: Evaluation matrix for OECD DAC criterion coherence

Coherence assessment dimensions	Basis of assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
Internal coherence	Extent to which the intervention is designed and implemented in a complementary manner based on division of tasks within the German development cooperation Extent to which the instruments of German development cooperation are meaningfully interlinked within the project and synergies leveraged? Extent to which the project is consistent with international and national norms and standards to which German development cooperation is committed.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions. A direct analysis of potential synergies and established synergies **Empirical methods and data sources:** Review and analysis of project documents, interviews with project staff, and institutional partners e.g. EnDev, NDC Assist Programme, SV Klima and GET. invest in relation to objectives targeted by the project.	• Documents from GIZ on coherence were good, clear and sufficient • Information from interviews corroborated contents of the project documents accessed **Overall data quality for this assessment dimension:** good
External coherence	Extent to which the project complements and supports the partner's own efforts (principle of subsidiarity) and uses their systems.	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions **Empirical methods and data sources:**	• Information and data obtained mainly from the project and GoK, and GoS were detailed, clear

Coherence assessment dimensions	Basis of assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
	Extent to which the intervention's design and implementation has been coordinated with other donors' activities.	Document analysis and secondary data analysis: GCF funding proposal (2019), • Analysis of project documents: GCF funding proposal, GCF feasibility study, result matrices and logframes, progress reports (GCF, BMZ) • GIZ-EnDev Global Programme "Promotion of Climate-Friendly Cooking" feasibility study (2019), Baseline survey, GCF proposal, Stakeholder mapping report (2022), The Energy Sector Management Assistance Programme (ESMAP); Sustainable Energy for All (SE4All) • African NDC Hub; Actions piloted by Regional Centres of Excellence for Renewable Energy and Energy Efficiency; United Nations Framework Convention on Climate Change (UNFCCC) and its related initiatives • ToC matrix, mid-term evaluation report, business development strategy for ICS entrepreneurs (Kenya), Knowledge sharing strategy and action plan (2022), Country strategy for Kenya (2018) • Nationally Determined Contributions 2015, Environmental and Social Assessment (2019) • Semi-structured interviews: with donor BMZ, EnDev staff • Triangulation with opinions of key stakeholders • Semi-structured interviews: with project management and staff, partners	and sufficient quality. • Data collected from stakeholders was excellent, and in harmony with the documents from the project **Overall data quality for this assessment dimension:** good

4.4 Effectiveness

This section analyses and assesses the effectiveness of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

Summarising assessment and rating of effectiveness

Table 9: Rating of OECD DAC criterion effectiveness

Criterion	Assessment dimension	Score and rating
Effectiveness	Achievement of the (intended) objectives	30 out of 30 points
	Contribution to achievement of objectives	30 out of 30 points
	Quality of implementation	19 out of 20 points
	Unintended results	18 out of 20 points
Overall score and rating		Score: **97 out of 100 points** Rating: **Level 1: highly successful**

The evaluation revealed that up to June 2025, 4 million ICS were sold in the two countries representing a total reduction of GHG emissions of 5,238,349 t CO2eq since the start of the project. Compared to the target value of 6.47 million t CO2eq and since that the number of stoves sold will continue to rise until the end of the project, the corresponding indicator has been achieved by 81%. However, as the GHG calculation methodology was changed in 2023 without adapting the corresponding indicator, the reduction of GHG emissions would be 7.644 million t CO2eq by applying the former methodology. The indicator is, therefore, considered fully

achieved. The evaluation also found evidence that 8,030 additional jobs were created, out of which 4,553 jobs were for women (57 %). The corresponding indicator is fully achieved. Additionally, the evaluation demonstrated that 20,140,401 people including 10,176,506 women had improved access to low-emission energy sources. The corresponding indicator has also been fully achieved. The evaluation confirmed that the increase of production and distribution fostered ICS sales and, therefore, clearly accelerated the market development for climate-friendly cooking technologies which contributed to achieve national climate mitigation targets in Kenya and Senegal. The experiences and knowledge products developed by the project were requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector. The evaluation also found that the quality of project implementation was very high. Moreover, the evaluation identified several positive and some minor negative unintended results at output and outcome level.

In total, the effectiveness of the project is rated highly successful (level 1), with 97 out of 100 points.

Analysis and assessment of effectiveness

Effectiveness dimension 1: Achievement of the (intended) objectives

Due to its complex finance structure composed of two donor contributions (GCF, BMZ), the project management had to follow two logical frameworks and result matrices, each of them having varying definitions of impact, outcome and output levels. Nevertheless, the indicators were identical, whereas the evaluation was based on the BMZ result matrix, which includes all results and indicators of the GCF logical framework.

The degree to which the project objective was achieved was assessed on the basis of an analysis of the extent to which the three project outcome indicators (POIs) were achieved. Table 10 summarises the assessment of POIs according to SMART (specific, measurable, achievable, relevant, time-bound) criteria.

Table 10: Assessed project objective and objective indicators (outcome level)

Project's objective according to the (last modification) offer: 02/2023 Broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal.		
Project's objective indicator according to the (last modification) offer	**Assessment according to SMART* criteria**	**Operationalisation of indicator in evaluation** (esp. if necessary for measurement or understanding)
POI 1/GCF indicator M3.1: Reduction of GHG in the cooking energy sector (t CO2eq)). Base value (2019): BAU value for emission reductions through ICS in Kenya and Senegal: 683,496 t CO2eq. Target value (09/2025): BAU* value for emission reductions through ICS in Kenya and Senegal during the project period: 4.87 million t CO2eq. In addition to BAU, the project will avoid 6.47 million t CO2eq. Current value as assessed by evaluation team (09/2025): 5,238,349 t CO2eq. Achievement in % as assessed by evaluation team (05/2025): 100%** Source: Updated ODM data (06/2025). *BAU = business-as-usual **NB: Calculation methodology was changed during the implementation without adapting the target value.	**Specific**: The indicator and its target value described the emission reduction resulting from additionally disseminated and sold ICSs in the two countries. **Measurable**: The indicator was measured indirectly through the number of additionally sold ICSs in the two countries (see POI 3). The calculation is based on the United Nations' Framework Convention on Climate Change methodology UNFCCC AMS-II.G Version 10. **Achievable**: The indicator was considered achievable. **Relevant**: The indicator was considered relevant. **Time-bound**: The indicator was measured at the moment of evaluation based on the sources.	The indicator was maintained.
POI 2: Number of new jobs created in the ICS sector. Base value (2019): 0.	The indicator referred to the jobs created by the project. It was considered specific, measurable, relevant and time-bound.	The indicator was maintained.

Project's objective according to the (last modification) offer: 02/2023 Broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal.		
Project's objective indicator according to the (last modification) offer	**Assessment according to SMART* criteria**	**Operationalisation of indicator in evaluation** (esp. if necessary for measurement or understanding)
Target value (09/2025): The project will create an additional 2,745 jobs (full-time equivalents, which will be distributed among a higher number of people) created. Current value as assessed by evaluation team (06/2025): 8,030 additional jobs. Achievement in % as assessed by evaluation team (09/2025): 100%. Source: Updated ODM data (06/2025).		
POI 3:/ GCF indicator M6.2: Number of individuals (males and females) with improved access to low-emission cooking energy sources. Base value (2019): 5,178,013 people of which 2,628,035 are women. Target value (09/2025): additional 11,230,000 people including 5,520,000 women. Current value as assessed by evaluation team (06/2025): 20,140,401 people including 10,176,506 women. Achievement in % as assessed by evaluation team (09/2025): 100% Source: Updated ODM data (06/2025).	The indicator focused on the access to cooking energy. The result matrix specified: Due to the phenomenon of 'stove stacking' (= improved cookers and inefficient cookers are used in parallel or for different meals in the same household), 'improved access' is only assumed if 1.1 improved stoves are available per household in Kenya and 2 improved stoves per household in Senegal. The number of people reached was calculated on the basis of national statistics on household sizes. It was considered specific, measurable, relevant and time-bound.	The indicator was maintained.
* SMART: specific, measurable, achievable, relevant and time-bound		

POI 1/GCF indicator M3.1 measured the reduction of GHG emissions in the cooking energy sector (measured in tonnes of carbon dioxide equivalent (t CO2eq)). The indicator was measured indirectly through the number of additionally sold ICSs in the two countries, Senegal and Kenya (see POI 3). The calculation was based on the United Nations' Framework Convention on Climate Change methodology, UNFCCC AMS-II.G Version 10. The evaluation found that, up to June 2025, 4 million ICS were sold representing a total reduction of GHG emissions of 5,238,349 t CO2eq (GIZ, 2025f, 2025j, 2025k). Compared to the target value of 6.47 million t CO2eq, POI 1/M3.1 has been achieved by 81%. However, on demand of GCF, the GHG calculation methodology was changed in 2023, switching from GHG emissions with lifetime factor to GHG emissions with annual usage (GIZ, 2025e). These changes were, nevertheless, carried out without adapting the corresponding indicator POI 1. By applying the former methodology, the reduction of GHG emissions would be 7.644 million t CO2eq by June 2025 (GIZ, 2019a, 2019b, 2023a, 2025b, 2025f; Int_9 with GIZ; Int_4, 7, 9 with partner). The indicator is, therefore, considered fully achieved.

POI 2 focused on the number of new jobs created in the ICS sector. The indicator was also measured indirectly through the number of additionally sold ICSs in the two countries, Senegal and Kenya (see POI 3). Here, the evaluation found evidence that due to project activities, 8,030 additional jobs were created: 5,496 in Kenya and 2,534 in Senegal (GIZ, 2025f, 2025j, 2025k; Int_2 with GIZ; Int_2, 26 with private actor). Compared to the target value of 2,745 jobs, the indicator was overachieved (GIZ, 2023a; Int_9 with GIZ). Several private sector beneficiaries, producers and distributers, also clearly confirmed having increased their number of staff significantly (Int_2, 22, 26 with private actor). Although, indicator POI 2 was not disaggregated by gender, the monitoring system demonstrated that out of 8,030 jobs created, 4,553 jobs were for women (57 %), 3,645 in Kenya and 908 in Senegal. POI 2 was evaluated to be fully achieved.

POI 3/GCF indicator M6.2 referred to the number of individuals (males and females) with improved access to low-emission energy sources. This indicator was also measured indirectly through the number of additionally

sold ICSs in the two countries, Senegal and Kenya (see POI 3). The evaluation found that, up to June 2025, 20,140,401 people including 10,176,506 women had improved access to low-emission energy sources (GIZ, 2025f). Compared to the target value of 11,230,000 people including 5,520,000 women, POI M6.2 has been fully achieved (GIZ, 2019a, 2019b, 2023a, 2025b, 2025f; Int_9 with GIZ; Int_4, 7, 9 with partner; Int_25 with private actor).

In terms of context and conflict sensitivity (fragility), the evaluation also assessed the extent to which the project was able to strengthen deescalating factors or connectors and weaken escalating factors or dividers and to address aspects of human rights. The evaluation did not identify relevant fragile contexts in the two countries. Nevertheless, the project successfully established a locally accessible complaints and grievances redress mechanism (GIZ, 2021a; Int_4 with donor; Int_7, 8 with GIZ).

The evaluation team concludes that all project objective indicator were fully achieved by the end of the project.

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

Effectiveness dimension 2: Contribution to achievement of objectives

The project's contribution to the achievement of its objective was assessed by selecting three results hypotheses from the project's ToC and describing how the instruments, activities and outputs contributed to achieving the project outcomes. In addition, an alternative scenario describes what would have happened had the project not been set up.

Achievement of outputs: The project was structured into three outputs. Output 1 aimed at accelerating the market development for climate-friendly cooking technologies in Kenia. All output indicators (OI) 1.1 (annual ICS sales), OI 1.2 (improvement of production level), OI 1.3 (producers with access to finance), OI 1.4 (knowledge, awareness, and positive perception of ICS benefits) and OI 1.5 (integration of ICS in county plans) were fully fulfilled (GIZ, 2024c, Int_6 with GIZ). Output 2 aimed at accelerating the market development for climate-friendly cooking technologies in Senegal. Again, all output indicators, OI 2.1 (annual ICS sales), OI 2.2 (improvement of production level), OI 2.3 (producers with access to finance), OI 2.4 (knowledge, awareness, and positive perception of ICS benefits) and OI 2.5 (number of stakeholders in the ICS sector) were fulfilled (GIZ, 2024c, Int_6 with GIZ). Output 3 focused on the improvement of knowledge on climate-friendly cooking solutions and their contribution to NDCs. Both output indicators OI 3.1 (knowledge products) and OI 3.2 (knowledge sharing) were also fully achieved (GIZ, 2024c; Int_5, 7 with GIZ). The evaluation, therefore, concluded that all outputs were fully achieved.

Selection of results hypotheses

The evaluation analysed selected hypotheses from the ToC of the three components:

- Hypothesis 1 was selected because it spotlights the production side of the ICS market.
- Hypothesis 2 was selected because it focuses on the distribution side of the ICS market.
- Hypothesis 3 was selected because it highlights the capitalisation of the project results in Kenya and Senegal.

All hypotheses were assessed from activity or sub-activity level to key result or outcome level.

Table 11: Effectiveness – Assessment of results hypothesis 1

Results hypothesis 1 (activity – output – project objective)	The project carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including producers (**activities**). These activities were expected to be implemented in cooperation with the Kenyan and Senegalese partner organisations (**result R1**). After the selection of ICS producers and ICS production centre sites (**result R2**), the ICS producers would be capacitated through capacity development measures and professionalisation kits (**result R3**) leading to the professionalisation of the ICS production (**result R4**). As a consequence, more ICS would be produced per producer (**result R8**) leading to an increased sale of ICS (**result R13**). The underlying **hypothesis** is that a higher sale rate of ICS would accelerate the market development for climate-friendly cooking technologies in Kenya (**output 1**) and Senegal (**output 2**). As a consequence, broad-based, sustainable market growth for improved and climate-friendly cooking technologies would contribute to achieve national climate mitigation targets in Kenya and Senegal (**project objective**).
Main assumptions and necessary context factors	The promotion of ICS by governments and donors in Kenya and Senegal is based on market-based approaches and not on high subsidies. Producers have an interest to increase the production capacities of their cooker production facilities.
Risks and unintended results	LPG and electricity may be subsidised on a large scale, so that consumers may not be interested in using biomass-based cookers anymore.
Alternative explanation(s)	ICS sales are increased through the voluntary carbon market.
Assessment of hypothesis	confirmed

Regarding hypothesis 1, the evaluation revealed that the project had carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including for producers, in cooperation with the Kenyan and Senegalese partner organisations (FGD_2, 4 with partner; Int_4 with partner; Int_4, 13, 21 with private actor). The ICS producers and ICS production centre sites interested in participating in the project's professionalisation programme underwent a selection process to identify the best performing producers (Int_26 with private actor). In total, 156 selected producers in Kenya and 109 producers in Senegal were then capacitated through training and professionalisation kits leading to the professionalisation of the ICS production in both countries (GIZ, 2024c, 2025c; FGD_4 with partner; Int_4 with partner; Int_2, 4, 13, 14, 21 with private actor). As a consequence, producers increased their production (Int_4, 13, 14, 21, 26 with private actor) and, in total about 4 million additional ICS were sold (GIZ, 2025f; Int_4 with partner). In Senegal, the ICS sales increased constantly reaching about 553,000 ICS sold by end of 2024 and about 392,000 for a 6-month period by end of June 2025 indicating that the annual sales will certainly reach about 800,000 stoves sold in 2025. Compared to the target in the Senegalese NDC to distribute 800,000 ICS per year by 2030 (Republic of Senegal, 2020), the evaluation stated that the target was achieved five years earlier than foreseen. In Kenya, the increase of ICS sales was even stronger reaching about 780,000 ICS sold by end of 2024 and 608,000 for a 6-month period by end of June 2025 indicating that the annual sales will probably increase to about 1.2 million ICS sold in 2025. Compared to the target in Kenya's NCCAP III that the number of households cooking with improved cooking (biomass) solutions should reach 3,450,000 (23%) by June 2028 (GoK, 2023), the evaluation found that the project had already contributed to this target by 35%. In conclusion, the evaluation confirmed that the increase of production fostered ICS sales and, therefore, clearly accelerated the market development for climate-friendly cooking technologies which contributed to achieve national climate mitigation targets in Kenya and Senegal.

The main assumptions that the promotion of ICS by governments and donors in Kenya and Senegal would be based on market-based approaches and not on high subsidies as well as the assumption that producers would have an interest to increase the production capacities of their cooker production facilities were confirmed by the evaluation (FGD_4 with partner; Int_4, 13, 21, 26 with private actor).

The risk that LPG and electricity may be subsidised on a large scale, so that consumers may not be interested in using biomass-based cookers anymore, was not confirmed. Although, LPG is subsidised in Kenya (Int_5 with partner), the evaluation demonstrated that biomass-based cook stoves will continue being used, in particular in rural areas, although the governments foster the transition towards clean cooking alternatives

(Int_1, 8 with partner). The alternative explanation that ICS sales might be increased through the voluntary carbon market was also confirmed by the evaluation; Nevertheless, the monitoring system clearly differentiated between ICS sales due to the project funded activities and others, such as the voluntary carbon market (GIZ, 2025f). The sales due to this market can therefore be considered as complementary rather than alternative.

The evaluation concluded that hypothesis 1 was clearly confirmed.

Table 12: Effectiveness – Assessment of results hypothesis 2

Results hypothesis 2 (activity – output – project objective)	The project carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including distributers (**activities**). These activities were expected to be implemented in cooperation with the Kenyan and Senegalese partner organisations (**result R1**). As a consequence, LMEs would be capacitated in distribution and retail (**result R9**) leading to an expansion of distribution and retail chains (**result R10**) and therefore to an increased sale of ICS (**result R13**). The underlying **hypothesis** is that a higher sale rate of ICS would accelerate the market development for climate-friendly cooking technologies in Kenya (**output 1**) and Senegal (**output 2**). As a consequence, broad-based, sustainable market growth for improved and climate-friendly cooking technologies would contribute to achieve national climate mitigation targets in Kenya and Senegal (**project objective**).
Main assumptions and necessary context factors	The promotion of ICS by governments and donors in Kenya and Senegal is based on market-based approaches and not, for example, on high subsidies.
Risks and unintended results	LPG and electricity may be subsidised on a large scale, so that consumers may not be interested in using biomass-based cookers anymore.
Alternative explanation(s)	ICS sales are increased through the voluntary carbon market.
Assessment of hypothesis	confirmed

With regard to hypothesis 2, the evaluation team observed that the project carried out sensitisation activities and capacity development measures for all relevant stakeholders of the 'ICS ecosystem', including for distributers in cooperation with the Kenyan and Senegalese partner organisations (GIZ, 2025i, FGD_2 with partner; Int_16, 22 with private actor). As a consequence, 520 LME in Kenya and 560 LME (whereof 370 were women) in Senegal were capacitated in distribution and retail, leading to an expansion of distribution and retail chains (FGD_1, 2 with partner; Int_16 with private actor; confidential e-mail exchange). All distributers interviewed in Kenya and Senegal confirmed having expanded their distribution chains (Int_16, 22 with private actor), although some stakeholders complained about not having received relevant equipment, in particular tricycles needed for transportation and to be provided by the project (FGD_2 with partner; Int_8 with partner). As a consequence, distributers increased their sales reaching in total about 4 million additional ICS (GIZ, 2025f, 2025j, 2025k) (for more details, please see hypothesis 1). In conclusion, the evaluation confirmed that the increase of distribution fostered ICS sales and, therefore, clearly accelerated the market development for climate-friendly cooking technologies which contributed to achieve national climate mitigation targets in Kenya and Senegal (Int_1 with donor). The main assumptions that the promotion of ICS by governments and donors in Kenya and Senegal would be based on market-based approaches and not on high subsidies was confirmed by the evaluation (Int_4, 5, 9 with partner). The risk and alternative explanation were identical to hypothesis 1. In conclusion, the evaluation stated that hypothesis 2 was clearly confirmed.

Table 13: Effectiveness – Assessment of results hypothesis 3

Results hypothesis 3 (activity – output – project objective)	The project collected and compiled data generated at national level as results of outputs 1 and 2, including project results and impacts, with particular attention to gathering knowledge and evidence of the climate change benefits and impacts of the ICS sector in the form of GHG emission reductions (**activities**). As a consequence, the activities in Kenya and Senegal were monitored, verified and validated **(result R17**). The project results in Kenya and Senegal were then expected to be evaluated **(result R18**) and used to develop knowledge products on ICS **(result R19**). These knowledge products would be requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector (**result R20**).

Main assumptions and necessary context factors	The success factors for market development for ICS in Kenya and Senegal are transferable and replicable.
Risks and unintended results	The results in Kenya and Senegal might not be available in time to deliver knowledge products.
Alternative explanation(s)	Knowledge products might be developed by other projects.
Assessment of hypothesis	confirmed

With regard to hypothesis 3, the evaluation revealed that within its activities in output 3, the project collected and compiled data generated at national level in Kenya and Senegal to feed them into the monitoring system and for reporting purposes to the donor organisations. The collected data referred to the number of producers capacitated and their level of production, the sales of ICS, the knowledge of stakeholders in the ICS sector, etc. By monitoring, verifying and validating the results obtained in Kenya and Senegal, the project gathered knowledge and evidence of the climate change benefits in the form of GHG emission reductions (GIZ, 2020a, 2020b, 2021b, 2021c, 2022b, 2022c, 2023c, 2023d, 2024b, 2024c, 2025b, 2025f). Based on the project results in Kenya and Senegal, the project developed and published two knowledge products on ICS:

- Climate-friendly cooking: scaling markets. A guide on the professionalisation approach (GIZ, 2024f; Int_5 with GIZ);
- Climate-friendly cooking: demonstrating CO2 emission reductions. How biomass cook stove projects can contribute to national NDC reporting (GIZ, 2024g; Int_5, 7 with GIZ).

In addition, the project developed and published a replication guide, 'Climate-friendly cooking: a paradigm shift in Kenya and Senegal'. How climate-friendly cooking action can accelerate sector growth, transform cooking markets and contribute to climate change mitigation (GIZ, 2025g; Int_5, 7 with GIZ). Furthermore, it provided input and served as case study for a GIZ review on 'Climate finance opportunities for clean and improved cook stoves' (GIZ, 2024h; Int_5, 7 with GIZ).

The evaluation found evidence that the knowledge products and project experiences were requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector. The requests came from a French NGO Acted, the German Climate Finance Initiative on small grants, the Clean Cooking Alliance and EnDev Sierra Leone (confidential e-mail exchanges). Moreover, until September 2025, the guide on the professionalisation approach was downloaded 5,843 times in English and 5,153 times in French. The guide 'How biomass cook stove projects can contribute to national NDC reporting' was downloaded 2,156 times in English and 2,564 times in French (GIZ, 2025h; Int_7 with GIZ). The assumption that success factors for market development for ICS in Kenya and Senegal are transferable and replicable was confirmed, which is shown by the fact that proposals for upcoming projects, which include the market-based approach for ICS in their project design, are currently being examined by donor organisations (see section 4.5) (Int_3 with donor; Int_5, 7 with GIZ). The risk that the results in Kenya and Senegal might not be available in time to deliver knowledge products was not confirmed also due to the prolongation of the project to cope with Covid-related delays. The alternative explanation that knowledge products might be developed by other projects was not confirmed.

Hypothesis 3 was therefore considered confirmed.

Regarding the question of what the situation would have been without the project (alternative scenario), the interviewees stated that:

- The number of ICS sold would be far less (Int_11 with GIZ; Int_4 with partner);
- There would be no county energy plans in Kenya (Int_4 with partner);
- The production of ICS would be 10 years behind (Int_2 with private actor).

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

Effectiveness dimension 3: Quality of implementation

The quality of project implementation was assessed based on the project documents and feedback from stakeholders. In particular, the evaluation assessed the extent to which the quality of implementation contributed to the success of the project, according to the Capacity WORKS management model.

Regarding project monitoring, the evaluation found that the project team had established and used the EnDev monitoring system, which suits to follow-up the logical framework and result matrix of both donor organisations (GIZ, 2024e). This ODM provided the project's results-based monitoring data. Its calculations were based on methods already developed under the EnDev programme. The ODM provides detailed information on where and by whom the ICS were manufactured and purchased, as well as population data, stove types, etc. It shows very clearly and transparently the assumptions underlying each individual calculation and how the final figures for the output and outcome indicators were determined. The baseline data was collected prior to the start of the project on the basis of representative surveys. The data was collected annually by the executing entities (with support from the implementing partners) and supervised by the project's M&E team at project and headquarters level (FGD_2 with partner; Int_8 with GIZ; Int_10 with partner; Int_2, 14, 22, 26 with private actor). On an annual basis, the data was externally verified, and the application of the data collection methodology was also externally validated. In addition, the results were monitored on the basis of annual progress reporting to GCF and BMZ. Monitoring data was disaggregated by gender (GIZ, 2024e). The evaluation did not find evidence of specific risk monitoring in the monitoring system. However, risk monitoring was done by the GCF Oversight Unit of GIZ through a 'living document' which was updated twice a year (Int_9 with GIZ). Risks were also reflected in the progress reports to GCF and BMZ (GIZ, 2020a, 2020b, 2021b, 2021c, 2022b, 2022c, 2023c, 2023d, 2024b, 2024c, 2025b, 2025f). However, the monitoring system is not accessible to project partners and outside users. In addition, project staff considered that more digitalised data management is needed (Int_9 with GIZ). Moreover, the evaluation stated through site visits and stakeholder interviews that in a few cases the equipment handed over to producers was not always used or not available. A better follow-up of equipment was suggested (FGD_4 with partner; Int_3 with partner; Int_4 with private actor). The evaluation therefore considered the project's monitoring system to be of very good quality but still has room for improvement.

The project also developed an environmental and social impact assessment, a comprehensive environmental and social management plan and a gender action plan (GAP) (GIZ, no date a, 2018a, 2019e, 2021a; Int_9 with partner) including a safeguard monitoring system. The project reported annually to the two donor organisations on environmental and social safeguards as well as on the progress of the GAP (GIZ, 2020a, 2020b, 2021b, 2021c, 2022a, 2022b, 2022c, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2025b, 2025f).

In terms of cooperation management, the project actively involved all relevant stakeholders, including institutions at national (and county level in Kenya), finance institutions and private sector companies. NGOs played a key role as implementing partners. Relevant key stakeholders highly appreciated the project's participatory approach (Int_4, 5, 8 with partner) and its reactivity to support also in developing strategies (Int_9 with partner). In addition, the project team actively involved key stakeholders in decision-making processes, for example through regular meetings at operational and strategic level (Int_4, 5, 8 with partner). The evaluation also found that the project successfully brought together two donor organisations and leveraged considerable funds from the national budgets (Int_4, 5, 8 with partner).

The project actively fosters learning processes, especially through capacity development measures for all stakeholders. In addition, it has set up an integrated knowledge-management strategy for the ICS sector which is also used by the partners (Int_8 with GIZ; Int_4 with partner). In addition, the project has integrated an entire output into the project design in order to promote and replicate lessons learnt (GIZ, 2019a, 2019b). Stakeholders, however, would have wished for more exchange between Senegalese and Kenyan stakeholders to improve mutual learning (Int_4 with partner).

The project also had a dedicated steering system with a two-level meeting structure. At strategic level, Project Advisory Board meetings included all key partners and took place annually (Kenya) or bi-annually (Senegal) (GIZ, 2025c; Int_4, 9 with partner). These meetings were aimed at making decisions, approving progress reports and discussing lessons learnt and project progress. Partner institutions took over a leadership role in project steering (Int_11 with GIZ). At operational level, meetings including members of the Project Coordination Committee took place quarterly (GIZ, 2025c). In addition, project steering comprises informal and ad hoc meetings in accordance with specific project implementation needs.

Many interviewees clearly stated being highly satisfied with the project's quality of implementation (Int_1, 3, 4 with donor; Int_4, 5, 7, 8, 9 with partner). In conclusion, the evaluation found that the quality of project implementation was very high.

Effectiveness dimension 3 – Quality of implementation – scores **19 out of 20 points.**

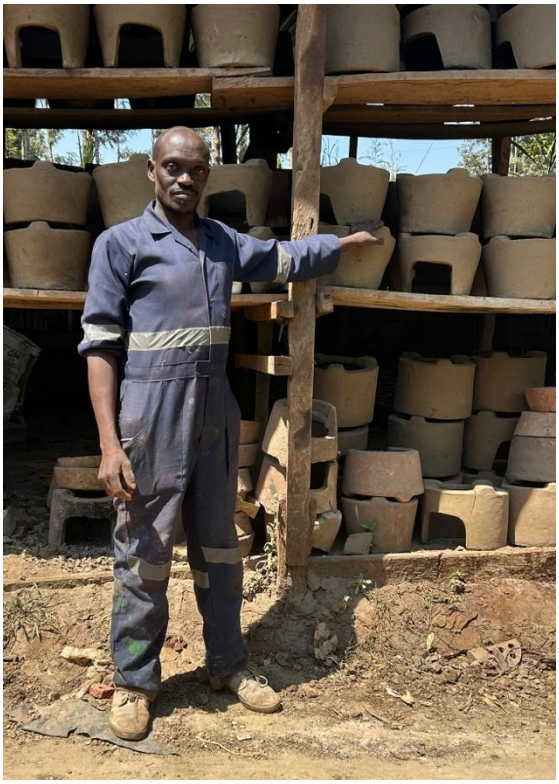
Effectiveness dimension 4: Unintended results

The evaluation identified the extent to which the project's negative and positive unintended results occurred at activity (output) and outcome level, primarily by collecting opinions of key stakeholders. Moreover, the project monitoring system and progress reports were assessed regarding the degree to which unintended risks and negative results at output and outcome level were addressed, as were the project measures to counteract these risks and negative results. Finally, based on an analysis of project documents and opinions expressed by key stakeholders in the partner region, project measures to exploit potential positive results were identified.

The evaluation revealed several positive unintended results at output and outcome level. A Kenyan producer used the knowledge obtained through the project activities to train other producers in other counties (Int_2 with private actor). In Senegal, producers trained through the project organised themselves and set up a professional association called the Blacksmith's Guild (*Union des forgerons*) (Int_13 with private actor). The evaluation also identified some unintended negative results. One private actor stated that, despite positive results obtained through the project, the implementing partner's approach did not give her enough space to develop her business and her turnover even diminished (Int_16 with private actor). The monitoring system did not include the follow-up of unintended results (Int_9 with GIZ). Implementation risks were tracked in the (bi-) annual reporting (GIZ, 2020a, 2020b, 2021b, 2021c, 2022a, 2022b, 2022c, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2025b).

Effectiveness dimension 4 – Unintended results – scores **18 out of 20 points.**

Photo 2: Stove producer in Muranga, Kenya (Source/©: Josef Seitz, 2025)



Methodology for assessing effectiveness

Table 14: Evaluation matrix for OECD DAC criterion effectiveness

Effectiveness assessment dimensions	Basis for assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
Achievement of the (intended) objectives	Extent to which project objective indicators were achieved: • POI 1/M3.1: Reduction of GHG in the cooking energy sector (t CO2eq)) • POI 2: Number of new jobs created in the ICS sector • POI 3:/M6.2: Number of households and individuals (males and females) with improved access to low-emission cooking energy sources **Context/conflict sensitivity (fragility):** Extent to which the project was able to strengthen deescalating factors/connectors and to weaken escalating factors/ dividers and to address human rights aspects.	**Evaluation design:** Comparison of the current status of the project objective indicators against the baselines. The analysis follows the analytical questions in the evaluation matrix, including specific GCF evaluation questions (see annex). **Empirical methods and data sources:** • Document analysis and secondary data analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), gender assessment (2019), environmental and social management plan and reports • Semi-structured interviews with key stakeholders, in particular target groups triangulation with opinions of key stakeholders (see table 4)	• Monitoring data for all objective indicators (until 12/2024) available • New MRV data for 2025 available • Progress reports available • Project staff and key stakeholders available **Overall data quality for this assessment dimension:** strong
Contribution to achievement of objectives	Extent to which the contribution of the outputs to the achievement of the intended project objective and respectively result 21 were demonstrated in the analysis. Selected results hypotheses from the project's ToC:	**Evaluation design:** Contribution analysis: a contribution story describes how the instruments, activities and outputs have contributed to achieving the project objective and respectively result 21. An alternative scenario describes what would have happened had the project not been set up.	• Monitoring data for all objective indicators (until 12/2024) available • New MRV data for 2025 available • Progress reports available

Effectiveness assessment dimensions	Basis for assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
	• Stove production (outputs 1 and 2) • Stove distribution (outputs 1 and 2) • Use of knowledge products by other countries (output 3) Hypotheses were assessed from activities to outcome level.	**Empirical methods and data sources:** • Document analysis and secondary data analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), gender assessment (2019), environmental and social management plan and reports • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4)	• Project staff and key stakeholders available **Overall data quality for this assessment dimension:** strong
Quality of implementation	The extent to which the quality of implementation contributed to the success of the project. The analysis is structured according to the Capacity WORKS success factors: • Results-based monitoring • Stakeholder map • Capacity development strategy • Steering structure • Operational plan • Integration of co-financing, learning processes established	**Evaluation design:** No specific evaluation design applied. The analysis follows the analytical questions from the evaluation matrix, including specific GCF evaluation questions (see annex). **Empirical methods and data sources:** • Document analysis and secondary data analysis: ODM-based monitoring system, progress reports (GCF, BMZ), stakeholder maps, Global component knowledge sharing strategy (2022), Business development strategy for ICS entrepreneurs (Kenya), project Management structure, steering and governance structure, reports of Project Advisory Board, Minutes of Project Coordination Committee, project implementation timetable, gender assessment (2019), environmental and social management plan and reports • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4)	• Multitude of management documents and instruments available • Project staff and key stakeholders available **Overall data quality for this assessment dimension:** strong
Unintended results	Extent to which unintended positive and negative results at activity and outcome level have been observed/can be anticipated by the evaluation. Extent to which benefits and risks emanate from them and how the project monitored such unintended effects and responded to them. Context/conflict sensitivity (fragility): Extent to which the project applied conflict-sensitive project management and monitoring (especially of risks and unintended effects).	**Evaluation design:** Most Significant Change Approach (significant change stories) **Empirical methods and data sources:** • Document analysis and secondary data analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), project risks and safeguard monitoring, gender assessment (2019), environmental and social management plan and reports • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4).	• Multitude of management documents and instruments available • Project staff and key stakeholders available **Overall data quality for this assessment dimension:** strong

4.5 Impact

This section analyses and assesses the impact of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

Summarising assessment and rating of impact

Table 15: Rating of OECD DAC criterion impact

Criterion	Assessment dimension	Score and rating
Impact	Higher-level (intended) development changes/results	24 out of 30 points
	Contribution to higher-level (intended) development results/changes	40 out of 40 points
	Contribution to higher-level (unintended) development results/changes	30 out of 30 points
Impact score and rating		Score: **94 out of 100 points** Rating: **Level 1: highly successful**

In both countries, Senegal and Kenya, there is significant progress in achieving their goals in climate action (SDG 13), but they still face significant challenges regarding the achievement of the other SDGs, namely SDG 3 (healthy lives), SDG 5 (gender equality), SDG 7 (access to energy) and SDG 15 (forests and biodiversity). The evaluation demonstrated that, as a consequence of the project activities, more than 10 million women had improved access to low-emission cooking energy sources. The project also contributed to women's economic empowerment by strengthening their business capacities and increasing their revenues. Moreover, the increased sales of ICS had positive impacts on the livelihood of women by reducing air pollution due to cooking smoke exposure and time needed for firewood collection and cooking tasks. Reduced fuel consumption by 70 % also lead to monetary savings. The evaluation also found that the project clearly laid the foundation for the replication of the project results and that there is a high probability that these results will be replicated in other countries. The project also served as a model by successfully demonstrating that fostering a market-based approach at large scale is feasible.

In total, the impact of the project is rated highly successful (level 1), with 94 out of 100 points.

Analysis and assessment of impact

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

The analysis of the project's higher-level (intended) development results focused on the extent to which the most relevant SDG 13 (Take urgent action to combat climate change and its impacts) has been achieved in the two partner countries. Moreover, the status of the following other project-related SDG-level changes was assessed:

- SDG 5: Gender equality and empowerment of all women and girls;
- SDG 3: Ensure healthy lives and promote well-being;
- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy;
- SDG 15: Support sustainable development by preserving forests and biodiversity.

Additionally, the project was expected to contribute to the replication of experiences from Kenya and Senegal in other countries (result 21).

According to the Sustainable Development Report 2025 (Sachs et al., 2025a), Kenya has achieved its SDG 13, while all other SDGs considered (SDGs 3, 5, 7, and 15) are stagnating or only moderately improving (see

figure 3). Compared to the SDG Index of all other countries, Kenya ranks only 123rd out of 167, which means it still faces significant challenges in achieving the SDGs.

Figure 3: SDG Dashboard and trends for Kenya in 2025 (Sachs et al., 2025a)



Similarly, Senegal has also achieved its SDG 13, while all other SDGs considered (SDGs 3, 5, 7, and 15) still represent major challenges (see figure 4) (Sachs et al., 2025b). Ranking 117th out of 167, Senegal does slightly better than Kenya compared to the SDG Index of all other countries, but still lies quite behind in terms of achieving the SDGs.

Figure 4: SDG Dashboard and trends for Senegal in 2025 (Sachs et al., 2025b)



The evaluation therefore concluded that in both countries, there is very good progress in achieving their goals in climate action, but they still face significant challenges regarding the achievement of the other SDGs.

With respect to the replication of experiences from Kenya and Senegal in other countries (result 21), the evaluation found clear evidence that project results are being taken up in other development initiatives in other countries (for more details, please refer to hypothesis 5 in Impact dimension 2).

Impact dimension 1 – Higher-level (intended) development changes/results – scores **24 out of 30 points.**

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

The contribution of the project to higher-level (intended) development results or changes was assessed by selecting two results hypotheses from the project's ToC and describing how the project is contributing to these results. An alternative scenario describes what would have happened had the project not been set up.

Selection of results hypotheses

The evaluation assessed the extent to which the project contributed to achieve the following overarching development results:

- SDG 5 (Achieve gender equality and empower all women and girls), as the empowerment of women and girls represents an expected key achievement of the project.
- Replication of experiences from Kenya and Senegal in other countries.

Table 16: Impact – Assessment of results hypothesis 4

Results hypothesis 4 (project objective – impact)	A broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal (**project objective**) and hereby contributes to achieve gender equality and promotes the empowerment of women and girls (**SDG 5**).
Main assumptions and necessary context factors	The political commitment of the governments of Kenya and Senegal to promote ICS is maintained.
Risks and unintended results	Changes in government priorities may decrease the impact of the project results at impact level.
Alternative explanation(s)	Women are empowered through other development initiatives.
Assessment of hypothesis	confirmed

With regard to hypothesis 4, it is projected that through a broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributing to achieve national climate mitigation targets in Kenya and Senegal and by setting a focus on women-led companies, the project was supposed to contribute to achieve gender equality and empower all women and girls (SDG 5). The assessment of the project objective indicators showed that out of three POI only one indicator (POI 3) was disaggregated by gender, including gender-specific target values. Although, the indicator POI 1 exclusively focused on the reduction of GHG emissions without the possibility of incorporating gender-specific targets, the indicator POI 2 (jobs created) could have integrated a gender dimension. The assessment of POI 3 demonstrated that, as a consequence of the project activities, more than 10 million women had improved access to low-emission cooking energy sources (for more details, please refer to section 4.4 – Effectiveness dimension 1) (GIZ, 2025f). The evaluation also showed that the project has achieved very positive results in terms of women's economic empowerment. On the production side, 4,553 additional jobs were created for women (GIZ, 2025j, 2025k). On the distribution side, the project trained women to strengthen their business capacities leading to increased revenues (FGD_1, 2, 5 with partner; Int_16 with private actor; confidential e-mail exchange). The project also clearly took up key recommendations of the gender analysis to create an enabling environment for the economic success and advancement of women and to support women's leadership in the entrepreneurial ecosystem (GIZ, 2018a).

All female (but also male) entrepreneurs interviewed confirmed having considerably increased their revenues (Int_2, 14, 16 with private actor). As a consequence, their living conditions improved and savings made, which benefited children to go to school (Int_4 with partner; Int_2, 14 with private actor). Moreover, the increased sales of additional 4 million ICS had positive impacts on the livelihood of women. Several interviewees confirmed that air pollution due to cooking smoke exposure was reduced (Int_7, 8 with partner; Int_14, 25 with private actor). The use of ICS also reduced time needed for firewood collection and cooking tasks (Int_7 with partner; Int_25 with private actor). Moreover, fuel consumption was reduced by 70% leading to monetary savings (FGD_ 2 with partner; FGD_1 with private actor; Int_4, 8 with partner; Int_2, 21, 25 with private actor).

The project also fostered women groups in distribution of ICS (FGD_ 2 with partner; FGD_1 with private actor). However, the evaluation showed that the approach of selling ICS through women groups was not always successful as only some women of the groups were actually interested in working in the ICS sector (FGD_4 with partner; FGD_1 with private actor).

In conclusion, the project was considered successful in achieving its women-related results at outcome and impact levels. The project's positive results regarding empowerment of women were also confirmed during the interviews and FGDs with implementing partners, women entrepreneurs and women groups (Int_1 with donor; FGD_5 with partner; FGD_1 with private actor; Int_16, 24 with private actor). The interviewees stated, in particular, that:

- '*Before, I lived in a clay house. Thanks to the project and my work, I could build a stone-house and even another for my mother-in-law*' (Int_14 with private actor).
- '*Now, my daughter is graduate and has a production centre on her own'* (Int_14 with private actor).
- '*We have achieved including vulnerable communities and women into business*' (FGD_1 with partner).
- '*We have overcome cultural challenges as in some areas women were not allowed by men to walk around in the village to sell or install stoves*' (FGD_4 with partner).

The assumption that the political commitment of the governments of Kenya and Senegal to promote ICS would be maintained was confirmed (GIZ, 2025l; FGD_5 with partner; Int_4, 9 with partner). The risk that changes in government priorities may decrease the impact of the project results at impact level was not confirmed (FGD_5 with partner; Int_4, 9 with partner). The alternative explanation that women are empowered through other development initiatives was not confirmed, as there were a number of development initiatives to promote gender equality, which had, nevertheless, no overlap with the project (see section 4.3 – Coherence).

In conclusion, Hypothesis 4 is considered as confirmed.

Table 17: Impact – Assessment of results hypothesis 5

Results hypothesis 5 (project objective – impact)	A broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal (**project objective**). The experiences from Kenya and Senegal are then replicated in other countries (result 21)
Main assumptions and necessary context factors	The project results are positive enough to be taken up by other countries
Risks and unintended results	Changes in government priorities may decrease the impact of the project results at impact level
Alternative explanation(s)	Climate-friendly cooking technologies are used in other countries without being based on experiences from Kenya and Senegal
Assessment of hypothesis	confirmed

Regarding hypothesis 5, the project was supposed to contribute to achieve national climate mitigation targets in Kenya and Senegal through a broad-based, sustainable market growth for improved and climate-friendly cooking technologies. The experiences from Kenya and Senegal are then replicated in other countries (result 21). As demonstrated in hypothesis 3, the evaluation found clear evidence that the knowledge products and project experiences were already requested by other countries for the introduction of market-based approaches to reduce GHG emissions from the cooking energy sector (for more details, please refer to Effectiveness dimension 2). The evaluation also confirmed that the project results were broadly exchanged through different communication channels to other countries, in particular, at a side event at the Second Africa Climate Summit 2025 in Ethiopia (GIZ, 2025l). As the project results have only recently been disseminated on a larger scale, no concrete replication of the results is to be expected at this stage. Key interviewees confirmed, however, that proposals for upcoming projects, which include the market-based approach for ICS in their project design, are currently being examined by donor organisations. This refers, in particular, to a new regional project on energy transition in Africa targeting 11 countries including Senegal and Kenya. Senegal will constitute the reference and knowledge provider for West Africa and Kenya for East Africa (Int_1 with donor; Int_5, 7 with GIZ). Furthermore, several African countries expressed during the African Climate Summit 2025

their interest in replicating the project approaches (Int_1 with donor; Int_5 with GIZ). The assumption that the project results would be positive enough to be taken up by other countries was confirmed (GIZ, 2025h; Int_3 with donor; Int_5, 7 with GIZ). The risk that changes in government priorities may decrease the impact of the project results at impact level was not confirmed, but is still valid. The alternative explanation that climate-friendly cooking technologies are used in other countries without being based on experiences from Kenya and Senegal, was confirmed, but on a much smaller scale. Although, other initiatives to promote ICS in Africa exist, several interviewees underlined that the project was by far the largest initiative (UNFCCC, 2023; Int_3 with donor; Int_11 with GIZ; Int_8, 9 with partner).

In conclusion, the evaluation found that the project clearly laid the foundation for the replication of the project results and that there is a high probability that these results will be replicated in other countries. Consequently, Hypothesis 5 is assessed as confirmed.

The assessment of the question to what extent did the intervention serve as a model and/or achieve broad-based impact, revealed that, according to a key political partner, the project was successful in demonstrating that fostering a market-based approach at large scale is feasible (Int_8 with partner).

When asked how the situation would have developed without the intervention (**alternative scenario**), interviewees gave several relevant answers:

- '*There would be a stronger impact on forests, revenues, and fuel savings*' (Int_9 with partner).
- '*Cooking-related health issues would be worse*' (Int_9 with partner).
- '*There would be no progress in health impact due to cook stoves*' (Int_4 with partner).
- '*More trees would be cut down*' (Int_4 with partner).
- '*GHG emissions would be higher*' (Int_4 with partner).
- '*Relevant strategies on clean cooking including climate-friendly cooking, would not exist*' (Int_4 with partner).

In conclusion, the evaluation found clear evidence that the project contributed directly to achieve gender equality and promoted the empowerment of women and girls (SDG 5). It also laid the foundation for the replication of the project results and that there is a high probability that these results will be replicated in other countries.

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

Photo 3: Woman entrepreneur in ICS distribution in M'Bour, Senegal (Source/©: Josef Seitz, 2025)



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

The extent to which negative and positive unintended results of the project occurred at impact level was identified, in particular through document analysis and by collecting opinions of key stakeholders. Moreover, the project monitoring system and progress reports were assessed regarding the degree to which unintended negative results at impact level were addressed, as were the project measures to counteract potential negative results. Finally, project measures to exploit potential positive results at impact level were identified, also document analysis and interviews.

With regard to unintended negative results, the evaluation did not reveal any negative social nor environmental impacts. The project, however, had unexpected positive effects at impact level. In Senegal, the technical and strategic know-how of the project staff was so appreciated by METE that they were called upon when revising the country's NDC in the sector (Int_11 with GIZ). Partner organisations also mentioned that the project preparation process and implementation have developed their capacities to develop further GCF projects (Int_1 with GIZ; Int_5 with partner). In Kenya, the project developed energy plans for 15 counties out of 44, including the ICS sector into the plans (FGD_3 with partner; Int_1 with GIZ).

The monitoring system did not follow systematically on unintended results, but reflection on unintended results was included in the annual reporting to the donor organisations (Int_9 with GIZ; GIZ, 2020a, 2020b, 2021b, 2021c, 2022a, 2022b, 2022c, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2025b). The evaluation did not identify unintended effects on the context of fragility.

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

Methodology for assessing impact

Table 18: Evaluation matrix for OECD DAC criterion impact

Impact assessment dimensions	Basis for assessment	Evaluation design, empirical methods and data sources	Data quality and limitations

Higher-level (intended) development changes/ results	Extent to which the following project-related higher-level changes were observed:
	• SDG 13: Combat climate change
	• SDG 5: Achieve gender equality and empower all women and girls
	• SDG 7: Ensure access to affordable, reliable, sustainable and modern energy
	• SDG 15: Protect terrestrial ecosystems
	• SDG 3: Ensure healthy lives and promote well-being
	
	In addition, the project was expected to contribute to the replication of experiences from Kenya and Senegal in other countries (result 21).
		Evaluation design:
		The analysis followed the analytical questions in the evaluation matrix, including specific GCF evaluation questions (see annex).
		
		Empirical methods and data sources:
		• Document analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), gender assessment (2019), environmental and social management plan and reports
		• Secondary data analysis:
		  ○ NDCs of Kenya and Senegal
		  ○ Third Voluntary National Review on the Implementation of the SDGs (2024)
		  ○ Kenya National Bureau of Statistics: SDGs in Kenya, Statistical annex to the Kenya Voluntary National Review (2024)
		  ○ Kenya Civil Society Organizations (CSOs) Voluntary National Review Report (2024)
		  ○ Revue Nationale Volontaire du Sénégal (2022)
		• Semi-structured interviews with key stakeholders, in particular target groups
		• Triangulation with opinions of key stakeholders (see table 4).
			• Recent secondary data on SDG were available for Kenya (2024)
			• Data on SDG were available for Senegal (2022)
			• Progress reports were available
			• Project staff and key stakeholders were available
			
			Overall data quality for this assessment dimension: good

Contribution to higher-level (intended) development results/ changes	Selected results hypotheses from the project's ToC:
	• Hypothesis 4: A broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal (project objective) and hereby promotes the empowerment of women by ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in economic life (SDG 5)
	• Hypothesis 5: A broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal (project objective). The experiences from Kenya and Senegal are then replicated in other countries (result 21)
	
	Hypotheses were assessed from outcome to impact level.
		Evaluation design:
		Contribution analysis: A narrative contribution story describes how the project outcomes have contributed to achieve the higher-level development results.
		
		An alternative scenario describes what would have happened if the project would not have been set up.
		
		Empirical methods and data sources:
		• Document analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), gender assessment (2019), environmental and social management plan and reports
		• Secondary data analysis:
		  ○ NDCs of Kenya and Senegal
		  ○ Third Voluntary National Review on the Implementation of the SDGs (2024)
		  ○ Kenya National Bureau of Statistics: SDGs in Kenya, Statistical annex to the Kenya Voluntary National Review (2024)
		  ○ Kenya CSOs Voluntary National Review Report (2024)
		  ○ Revue Nationale Volontaire du Sénégal (2022)
		• Semi-structured interviews with key stakeholders, in particular target groups
		• Semi-structured interviews with project managers in other countries
			• Recent secondary data on SDG were available for Kenya (2024)
			• Data on SDG were available for Senegal (2022)
			• Gender disaggregated monitoring data were available
			• Progress reports were available
			• Project staff and key stakeholders were available
			
			Overall data quality for this assessment dimension: good

Impact assessment dimensions	Basis for assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
		• Triangulation with opinions of key stakeholders (see table 4)	
Contribution to higher-level (unintended) development results/ changes	• Extent to which higher-level, unintended development changes (social, economic and environmental dimensions and their interactions, considering political stability) can be identified/foreseen • Extent to which the project brought about foreseeable/identifiable unintended (positive and/or negative) higher-level development results • Extent to which the project contributed to unintended (positive and/or negative) higher-level development results at the level of particularly disadvantaged or vulnerable groups of beneficiaries and stakeholders Fragility: • Extent to which the project had unintended negative (escalating) or positive (deescalating) effects on the context of fragility Extent to which the project applied conflict-sensitive project management and monitoring (especially of risks and unintended effects).	**Evaluation design:** Most Significant Change Approach (significant change stories) **Empirical methods and data sources:** • Document analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), result matrices and logframes, progress reports (GCF, BMZ), gender assessment (2019), environmental and social management plan and reports • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4)	• Progress reports were available • Project staff and key stakeholders were available **Overall data quality for this assessment dimension:** good

4.6 Efficiency

This section analyses and assesses the efficiency of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

Summarising assessment and rating of efficiency

Table 19: Rating of OECD DAC criterion efficiency

Criterion	Assessment dimension	Score and rating
Efficiency	Production efficiency (resources/outputs)	63 out of 70 points
	Allocation efficiency (resources/outcome)	27 out of 30 points
Efficiency score and rating		Score: **90 out of 100 points** Rating: **Level 2: successful**

The evaluation showed that the project demonstrated a good level of production efficiency. Its mix of instruments was marked by a high number of experts, which is comprehensible considering the complexity of the project. Remarkably, all staff in Kenya were national experts. The personnel costs were considered to be balanced, especially in view of the fact that all indicators have been fully achieved. Financing instruments, processed mainly through partner organisations, were successfully used for the outreach to the entrepreneurs and the population. Procurement costs for materiel purchased for beneficiaries and costs for human capacity development measures were considered realistic. Compared to the originally projected costs, most costs stayed within a reasonable deviation, but several relevant deviations were identified, in particular costs for

external experts and other costs. Regarding the costs per output, the vast majority of the total budget has been spent on implementing the activities in Kenya (output 1) and Senegal (output 2), which realistically reflects the activities to achieve the results foreseen in the two countries. For the global component (output 3), a relatively small proportion of the budget was spent mainly for monitoring, reporting and knowledge-management tasks. The share of overarching costs for general tasks, such as administrative services, backstopping, coordination and other project tasks, was very low. The assessment of the project's allocation efficiency revealed that the GIZ-based implementation strategy was preferable to a consultancy-based one as it was based on the experiences, results and existing cooperation structure of the EnDev programme implemented by GIZ. The project also leveraged funds through partner contributions from the governments and implementing partners of Kenya and Senegal. However, at the time of the evaluation, the partner contributions in Senegal were actually lower than foreseen. The partner contributions will probably still increase until the end of the project. Moreover, the project combined funds from two donor organisations, which also increased the project's efficiency.

In total, the efficiency of the project is rated successful (level 2), with 90 out of 100 points.

Analysis and assessment of efficiency

Efficiency dimension 1: Production efficiency

The project's production efficiency was assessed by analysing the extent to which the intervention delivered results in an economic and timely way (relationship between input and output). For this purpose, the 'follow-the-money' approach and the Efficiency tool developed by GIZ were applied. As the result structures of the two donor organisations GCF and BMZ were identical and the financial report includes the contributions of BMZ and EU, the Efficiency tool could be applied for the entire project including both donor contributions. The partner contributions were also included based on last data available (GIZ, 2025n) and feedback from stakeholders.

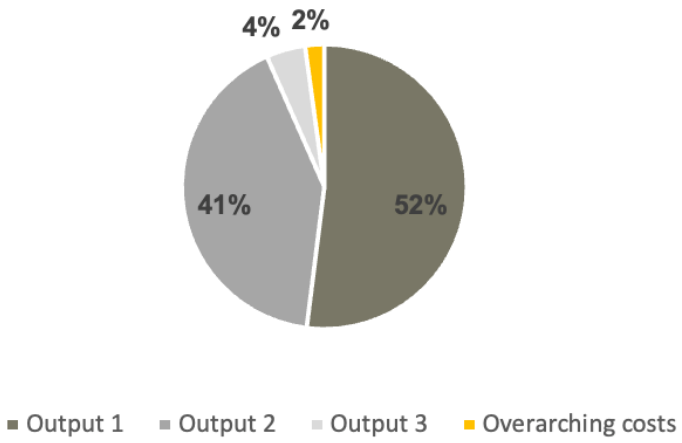
The project's mix of instruments was marked by a high number of experts, including two international experts in Senegal (output 2) and 27 national staff (12 in Senegal, 15 in Kenya). In addition, one project manager, one expert (output 3) and one finance manager, corresponding to two full-time equivalents, were based in Germany. The staff was complemented by GIZ office personnel and short-term experts (GIZ, 2025i, 2025m; confidential e-mail exchange). Considering the complexity of the project, which included interventions in large parts of the two countries, the use of a high number of staff was comprehensible. In addition, all 15 staff in Kenya (output 1) were national experts (GIZ, 2025i, 2025m). The personnel costs incurred to date have amounted to 53.2% of the project budget spent, which is considered to be balanced, especially in view of the fact that all indicators have been fully or nearly fully achieved (GIZ, 2024d, 2024e, 2025m). Financing instruments have accounted for about 20.4% of the project budget spent and have been processed mainly through partner organisations, which is consistent with the project's approach of using implementing partners for the outreach to the entrepreneurs and the population (GIZ, 2024e, 2025m). Procurement costs amounted to 14.9% of the budget, which was in line with the materiel purchased for the project beneficiaries (GIZ, 2024e, 2025m). Costs for human capacity development measures and other costs accounted for 4.6% and respectively 6.9% of the total budget (GIZ, 2024e, 2025m).

The question of the extent to which the identified costs deviated from the projected costs was assessed based on the financial report (GIZ, 2025m). The evaluation revealed that most costs stayed within a reasonable deviation of less than 10% or were not relevant in their absolute value. However, several relevant deviations from the originally projected costs were identified. Costs for external experts exceeded by 16% and other costs by even 43%. On the other hand, travel costs fell by 46% and, in particular, costs for financing instruments were 25% less than foreseen (GIZ, 2025m). Comparing the deviations for the three outputs and overarching costs, the evaluation demonstrated that the deviation in Kenya (output 1) was of only -0.4%, while it was -1.3%

in Senegal (output 2). The costs for output 3 deviated by -3.1% and the overarching costs by -6.9% (GIZ, 2025m).

The evaluation then focused on the extent to which the outputs (activities) could have been maximised with the same number of resources, under the same general conditions and with the same or better quality (maximum principle). To answer this question, the evaluation assessed the costs per output resulting from the application of the GIZ Efficiency tool (figure 5).

Figure 5: Efficiency tool: costs per output



These figures show that the vast majority of the total budget (93%) was spent on implementing the activities in Kenya (output 1) and Senegal (output 2) (GIZ, 2024e, 2025m). This reflects the nature of the activities undertaken to achieve the results foreseen in the two countries, which mostly involved advisory services and financing instruments (GIZ, 2024e, 2025m). A total of 52% of the project budget was used to implement the activities in Kenya and 41% for the activities in Senegal. For the global component (output 3), 4% of the budget was spent (GIZ, 2024e, 2025m). These figures are very realistic, since the activities were implemented in the two partner countries, while output 3 included monitoring, reporting and knowledge-management tasks. In conclusion, the distribution of resources to components seemed very reasonable and comprehensible. The share of overarching costs for general tasks, such as administrative services, backstopping, coordination and other project tasks, was 2% (GIZ, 2024e, 2025m). In view of the project's complex structure and when compared to other technical cooperation projects, these costs were assessed as very low.

In addition, the evaluation assessed the extent to which the project results could have been increased through the alternative use of inputs. The evaluation found that all indicators at output level were fully achieved or even overachieved by the end of the project (figure 6) (please see section 4.4). These results indicate that the inputs available were used efficiently (GIZ, 2024c, Int_5, 6, 7 with GIZ; Int_4 with partner).

Figure 6: Efficiency tool: costs and achievements per output

	Output 1	Output 2	Output 3	Output 4	Output 5	Overarching costs
Outputs	The market development for climate-friendly cooking technologies in Kenia is accelerated.	The market development for climate-friendly cooking technologies in Senegal is accelerated.	The knowledge on climate-friendly cooking solutions and their contribution to NDCs is improved.	0	0	
Actual sum of individual	€20 870 251,58	€16 619 906,94	€1 781 372,15	€0,00	€0,00	€874 411,26
Partner inputs	€1 378 822,38	€388 898,62	€0,00	€0,00	€0,00	€0,00
Sum of individual costs and partner inputs	**€22 249 073,96**	**€17 008 805,56**	**€1 781 372,15**	**€0,00**	**€0,00**	**€874 411,26**
Sum in %	**51,99%**	**41,40%**	**4,44%**	**0,00%**	**0,00%**	**2,18%**
Additional residual cost	€2 097 628,43	€3 602 916,69	€316 076,95	€0,00	€0,00	€644 939,56
Output indicators	Annual ICS sales	Annual ICS sales	Knowledge products	0	0	
Achievement	109%	171%	100%	#DIV/0!	#DIV/0!	
Output indicators	Improvement of production level	Improvement of production level	Knowledge sharing	0	0	
Achievement	112%	124%	100%	#DIV/0!	#DIV/0!	
Output indicators	Producers with access to finance	Producers with access to finance	0	0	0	
Achievement	300%	250%	#DIV/0!	#DIV/0!	#DIV/0!	
Output indicators	Knowledge, awareness, and positive perception of ICS benefits	Knowledge, awareness, and positive perception of ICS benefits	0	0	0	
Achievement	125%	118%	#DIV/0!	#DIV/0!	#DIV/0!	
Output indicators	Integration of ICS in county plans	Number of stakeholders in the ICS sector	0	0	0	
Achievement	100%	97%	#DIV/0!	#DIV/0!	#DIV/0!	

Finally, the evaluation demonstrated that the project has successfully produced its outputs on time and within the planned timeframe, despite some significant challenges due to the Covid-19 pandemic (Int_3 with GIZ; FGD_2 with partner). Moreover, several key stakeholders expressed satisfaction with the project's use of resources (Int_1, 2, 4 with donor; Int_14 with GIZ; Int_4 with partner). However, one key stakeholder would have preferred that the capacity development measures would have been carried out earlier through the previous EnDev programme, which might have slightly increased the project's production efficiency (Int_4 with donor).

Efficiency dimension 1 – Production efficiency – scores **63 out of 70 points**.

Efficiency dimension 2: Allocation efficiency

The assessment of the project's allocation efficiency was based mainly on project documents, progress reports and the project's financial report by applying the 'follow-the-money' approach and using the Efficiency tool developed by GIZ (see figure 7).

First, the evaluation assessed the extent to which the project results could have been achieved more cost effectively had it been designed in a different way. Alternative designs include implementation without the use

of financing instruments or by subcontracting consulting companies to implement some parts of the project. Here, the evaluation found that, with the budget available, all indicators were fully achieved (figure 7), although POI 1 is indicated as 81% only due to methodology change (please see section 4.4). These results indicate that the project design was very appropriate to achieve the results (Int_1, 4 with donor; Int_3 with GIZ). The evaluation team found that the implementation strategy of using financing instruments through partner organisations was very efficient, as it made it possible to reduce the cost of employing long and short-term experts and facilitated the access to the target groups (GIZ, 2019a, 2019b, 2019c, 2023a, 2025i; FGD_2 with partner; Int_13 with GIZ). Regarding the alternative strategy of using consulting companies, the evaluation team considered that one of the most relevant factors for the project's success was that it was based on the experiences, results and existing cooperation structure of the EnDev programme implemented by GIZ.

Moreover, the complex partner structure and holistic setup entailed highly challenging project management needs, which means that the GIZ-led strategy was a much better choice (Int_4 with donor; Int_13 with GIZ). The evaluation therefore concluded that the GIZ-based implementation strategy was preferable to a consultancy-based one.

Figure 7: Cockpit efficiency tool: overall costs and module indicator achievements

Module objective	Broad-based, sustainable market growth for improved and climate-friendly cooking technologies contributes to achieve national climate mitigation targets in Kenya and Senegal.
Actual sum of individual costs	€40 145 941,93
Partner inputs	€1 767 722,00
Sum of individual costs and partner inputs	**€41 913 663,93**
Additional residual costs	€6 661 561,63

Module objective indicators	Reduction of GHG in the cooking energy sector (Tonnes of carbon dioxide equiva-lent (t CO2eq)	Number of new jobs created in the ICS sector	Number of individuals (males and fe-males) with improved access to low-emission cooking energy sources	0	0
Achievement	81%	293%	179%	#DIV/0!	#DIV/0!

Second, the evaluation assessed the extent to which the project outcome could have been maximised with the same number of resources, while maintaining the same or better quality (maximum principle). Given that two outcome indicators were exceeded and one outcome indicator is highly likely to be fully achieved by the end of the project (see section 4.4), the evaluation concluded that the project has already achieved its maximum objective. There was no evidence to suggest that additional results could have been achieved by using the resources differently.

The project also leveraged funds through partner contributions, which came, at the moment of the evaluation, to a total of EUR 1,767,722, from the governments and implementing partners of Kenya (78%) and Senegal (22%) (GIZ, 2025n, 2025p; Int_3 with GIZ; Int_4, 6, 9 with partner). However, at the time of the evaluation, the partner contributions in Senegal were actually lower than foreseen (GIZ, 2025n). The partner contributions will probably still increase until the end of the project. Three financial audits were also carried out as part of the project (confidential e-mail exchange with GIZ). The partner contributions increased the project's efficiency. They were clearly assignable to specific outputs and therefore included in the Efficiency tool (GIZ, 2024e, 2025m, 2025n, 2025p). In addition, ICS entrepreneurs have invested by mobilising funds through their own means (Int_2, 14 with private actor), e.g. in Kenya, entrepreneurs invested over KES 25 million (about EUR 165,000) in the value chain (GIZ, 2025i).

Moreover, the project combined funds from two donor organisations, which avoided the administrative costs of managing separately two projects and consequently also increased the project's efficiency. Interviewees clearly

expressed their satisfaction regarding the capacity of the project management team to combine these funds (Int_4 with donor; Int_4 with partner).

Efficiency dimension 2 – Allocation efficiency – **scores 27 out of 30 points**.

Methodology for assessing efficiency

Table 20: Evaluation matrix for OECD DAC criterion efficiency

Efficiency: assessment dimensions	Basis for assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
Production efficiency (Input/outputs)	Extent to which the intervention delivered results in an economic and timely way (relationship between input and output) Aspects: • Costs per output • Type of costs • Partner contributions • Deviations between planned and actual costs • Regular reflection by the project on resources used • Overarching costs • Alternative options for allocating resources • Shifts between outputs for output maximisation	**Evaluation design:** Follow-the-money approach: Use of 'Efficiency tool' **Empirical methods and data sources:** • Document analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), progress reports • Document analysis: quantitative cost-output data using GIZ efficiency tool; project cost-commitment report (03/2025) • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4).	• Project documents were available • Project cost-commitment report (03/2025) was available • Project staff and key stakeholders were available • Data on partner contributions was available **Overall data quality for this assessment dimension:** good
Allocation efficiency (Input/Outcome)	Extent to which alternative strategies might have been more effective in achieving the project objectives. Analysis whether spent cost led to maximum outcome. Aspects: • Approaches, activities and technical cooperation (TC) instruments in comparison to alternatives • Partner contributions • Regular reflection by the project on input-outcome relation • Use of co-financing for output maximisation	**Evaluation design:** The analysis followed the analytical questions in the evaluation matrix, including specific GCF evaluation questions (see annex). **Empirical methods and data sources:** • Document analysis: ODM-based monitoring system, BMZ project proposal (2019) GCF funding proposal (2019), GCF feasibility study (2019), and modification proposal (2023), progress reports • Document analysis: quantitative cost-output data using GIZ efficiency tool; project cost-commitment report (03/2025) • Semi-structured interviews with key stakeholders, in particular target groups • Triangulation with opinions of key stakeholders (see table 4)	• Project documents were available • Project cost-commitment report (03/2025) was available • Project staff and key stakeholders were available • Data on partner contributions was available **Overall data quality for this assessment dimension:** good

4.7 Sustainability

This section analyses and assesses the sustainability of the project. It is structured according to the assessment dimensions specified by the BMZ (see annex).

Summarising assessment and rating of sustainability

Table 21: Rating of OECD DAC criterion sustainability

Criterion	Assessment dimension	Score and rating
Sustainability	Capacities of the beneficiaries and stakeholders	16 out of 20 points
	Contribution to supporting sustainable capacities	27 out of 30 points
	Durability of results over time	42 out of 50 points
Sustainability score and rating		Score: **85 out of 100 points** Rating: **Level 2: successful**

Sustainability of the ICS project was strong across all three dimensions. Beneficiaries and stakeholders now possess the technical, entrepreneurial, and institutional capacities to sustain outcomes (dimension 1), reinforced by the project's significant contributions in training, mechanisation, market development, and policy support (dimension 2). Results such as reduced GHG emissions, job creation, and professionalisation of the ICS ecosystem are durable and expected to strengthen beyond the project period (dimension 3). While ICS remain an intermediate technology and not fully clean, demand in rural areas is projected to remain high for the next decades, ensuring continued impact even as cleaner solutions gradually expand. (Risks such as financing constraints, resource availability, and policy shifts exist, but the resilience and adaptability of actors provide confidence in long-term sustainability.)

In total, the sustainability of the project is rated successful (level 2), **with 85 out of 100 points.**

Analysis and assessment of sustainability

Sustainability dimension 1: Capacities of the beneficiaries and stakeholders

The beneficiaries were the direct and indirect target groups presented on page 1, while stakeholders are enumerated in table 3. The evaluation confirmed that beneficiaries possessed adequate capacities to implement activities and sustain them beyond project closure. These capacities included: knowledge and skills in producing quality ICS; business management and enterprise profitability skills; access to production resources (workspaces, raw materials, skilled staff); market knowledge and networks; innovation capacity; and ability to collaborate and network within the industry.

Most direct beneficiaries already had some knowledge and experience in the cook stove value chain, particularly in production and sales. The project significantly enhanced these capacities (Int_1–29 with private actors; FGD_1, 2, 4 with partners). While many had previously operated at artisanal or basic levels, they progressed to various stages of professionalisation following intensive project-supported capacity building (Int_4, 8, 9 with partner; FGD_1, 2, 4 with partners). Private actors interviewed reported employing between one and eight staff, producing more than 200 ICS monthly, keeping enterprise records and engaging in marketing activities, registering their businesses and beginning digitalisation processes, returning profits and reinvesting in land and buildings (Int_2, 14, 18 with private actor; Int_8 with GIZ). All had well-established tools and equipment, with the project adding modern upgrades. Networks were also strengthened, covering financial services, technical advice, raw material sourcing, logistics, distribution and training opportunities. Production

increased from fewer than 100 stoves to at least 1,000 monthly, with some actors opening additional branches (Int_2, 14 with private actors).

Despite these gains, access to capital remained a constraint. Most private actors had good working relationships with financial institutions and some had received credit (Int_2, 14, 18, 19 with private actors). However, one actor in Kenya did not even have a bank account (Int_9 with private actor). Contracted stakeholders also reported improved capacities to support ICS implementation (FGD_4 with partner). Their roles included training beneficiaries, providing technical expertise, and supporting innovation, production, and monitoring (FGD_5 with partner). Field visits revealed, however, that some producers and artisans had not installed all equipment provided; installation of the equipment was the responsibility of the beneficiary as part of their contributions. In Senegal, one producer lacked space to accommodate ergonomic soil mixers (Int_4 with private actor), while in Kenya some private actors had yet to install equipment (Int_27 with private actor) for reasons that included lacking appropriate electricity points, the sizes of the workshops or late decisions made to relocate some of the work to nearby sites or buildings. Delays in installing equipment by the beneficiaries undermined their productivity and revenues and indicates their lack of capacities to maintain the use of the equipment sustainably. Save for the potters, most beneficiaries evolved from micro-businesses into fully fledged entrepreneurs with broad exposure and skills in the ICS ecosystem. Some even trained young people who have since become successful ICS entrepreneurs in their own right (Int_19 with private actor). The expectation is that with enhanced technical, business, entrepreneurial, financial and networking capacities, beneficiaries will sustain ICS production and sales. Growing demand for quality stoves is likely to reinforce the professionalism already institutionalised.

County, regional, and national staff in environment, climate change, and cooking sectors now have policies and strategies to guide ICS. However, implementation remains heavily donor-dependent (FGD_3, 6 with partner). In Kenya, budget allocations are often reduced or removed during supplementary budgets, limiting officers' ability to support ICS (Int_4 with partner; FGD_3 with partners). Stakeholder organisations such as Clean Cooking Alliance of Kenya and Improved Stoves Association of Kenya and the Chamber of Crafts and Blacksmith Association in Senegal strengthened their capacities during project implementation and are expected to continue supporting the ICS ecosystem (Int_10 with partner; Int_21 with private sector). The MoEP through REREC will monitor ICS production and sales until 2030 in Kenya (Int_4 with partner), while in Senegal the Chamber of Crafts is involved in monitoring (Int_10 with partner).

In western Kenya, ICS actors proposed forming a Savings and Credit Cooperative Society (SACCO) to improve access to credit. However, the process is incomplete and many actors remain unaware of its existence (Int_18, Int_27 with private actors; FGD_6 with partners).

Sustainability dimension 1 – Capacities of the beneficiaries and stakeholders – **scores 16 out of 20 points**.

Sustainability dimension 2: Contribution to supporting sustainable capacities

The ICS project invested heavily in building the capacities of the beneficiaries and stakeholders. Pre-implementation studies/surveys like training needs assessments and questionnaires on the status of the selected businesses at the start of the project guided the capacity building process (Int_6, 8 with GIZ). The project contracted executing agencies and partners, who worked with their staff or hired speciality and experienced consultants to deliver capacity building targeting especially the direct beneficiaries. The project developed manuals to guide the capacity building. Training reached producers and LME, covering production, marketing and business management FGD_1 with partner, Int_2, 4, 5, 13, 14, 16, 18, 21, 22, 26, 27 with private actor; FGD_1 with private sector). Staff from implementing and political partners also benefited from various training (Int_6, 8 with GIZ; Int_2, 14, 22, 23 with private partners; FGD_5). This entailed focused business management training and mentorship. The project built technical and entrepreneurial skills, in producing and finishing stoves as well as managing their businesses profitably (FGD_1 with partner, Int_2, 4, 5, 13, 14, 16, 18, 21, 22, 26, 27 with private actor; FGD_1 with private sector). The actors learnt the importance of making quality products and, as well, responding to the needs of the market. Knowledge acquired is

expected to stay with the actors – as already evidenced by the fact that the project found most of them in production at various points of the value chain. However, changes in market dynamics (which is projected to be gradual and take long), may require a different skill set.

The project made a significant contribution towards the capacities of the direct beneficiaries by providing them with modern tools, equipment and, for some, workshops (Int_8 with GIZ; FGD_1, 2, 4 with partners). Basic workshop equipment including moulds, welding machines and related artisan fabrication tools, large equipment like modern kilns and soil mixers. Some of the beneficiaries were trained as trainers in making the modern kilns. For these tools and equipment, beneficiaries made contributions in-kind, and this helped to deepen the ownership spirit among them. Through intensive monitoring support, the project identified best performing entrepreneurs (professional and business class producers and distributers) awarded according to performance-based incentives in the investment packages category. These rewards varied and included trucks, pick-up trucks, Tuk Tuks and motorbikes and were meant to support the beneficiaries in logistics (Int_8 with GIZ). Together with the training, the equipment provided has resulted in the producers embracing professionalisation of their enterprises, which are now better managed.

Following the training activities and equipping of producers, production of ICS increased, which necessitated capacitating the actors in the value chain through practical modalities of marketing their products, using trucks to storm markets, organising caravans during weekly markets, create awareness and offer discounts on the prices of the produce (FGD_2, 4 with partner; Int_12, 16 with private actor). This activity not only gave valuable experience to the actors but (i) opened up and broadened their market and marketing lenses, and (ii) helped the network and create valuable market links (Int_4, 2, 12, 13, 16, 15, 17, 18, 20, 21, 26, 27, 29 with private actor). This support strengthened their business viability and market presence (Int_3, 4, 13, 20, 21, 26 with private actor; FGD_2 with private actor). These linkages have been strengthened with high likelihood of growing further. This was in addition to the specialised training on marketing from experts (Int_6, 8 with GIZ). Marketing training helped beneficiaries organise their own outreach (Int_2 with private actor). Over 2.5 million ICS units were sold in Senegal without subsidies through EnDev/GCF, signalling sustainable market growth (Int_1, 4 with donor; Int_5, 6, 11 with GIZ; FGD_2 with partner). This activity also helped create awareness among the rural people on the use and benefits of the ICS. At the time of this evaluation, some beneficiaries had invested and organised for their own market storms and road shows (Int_2, 14, with private actor) while some had opened new marketing outlets for their stoves (Int_14 with private actor). This is a strong indication that the beneficiaries institutionalised the importance of marketing, and will keep innovating new approaches to boost their sales.

One drawback of the marketing storms was that the discount offered on the products (especially ‘promotional prices’) cannot work for installers – the prices were too low. However, potential users who interacted with the market storms insisted on the low discounted prices (Int_10 with private actor).

An activity beneficiaries really appreciated was establishment of linkages – vertically and horizontally, especially links with financial institutions (Int_18 with private actor). This was to enable them access credit to either expand their businesses or to meet urgent customer needs. Interviews with the FI (Int_6, 2, 8 with private actor) indicated that the linkages they had with the ICS beneficiaries was not structured from the project’s perspective. Rather, the FI related with the ICS beneficiaries as any other customers. The FIs proposed that future projects involve and include them from project formulation, and that the relationships be structured for the FI to take into account the unique circumstances of the beneficiaries. Furthermore, an FI indicated that with a structured relationship, they could also leverage own resources to support the project in cash or kind (Int_28 with private actor. The FI can support the projects by providing Financial Literacy classes (Int_28 with private actor).

Collaboration with public institutions created new financial opportunities for the clean cooking sector. In Senegal, 18 of 30 producers secured sustainable access to finance, up from only five in 2021 (Int_3 with partner). Financial mechanisms included asset subsidies, investment premiums, and microfinance institution-

backed bank loans. The investment premium scheme increased private financiers' confidence and reinforced the sector's long-term financial sustainability (Int_3 with partner). The impact was twofold: ICS producers developed a stronger understanding of FIs' requirements for obtaining loans, while FI gained clearer insights into the risks and market potential of the ICS industry. This mutual understanding contributed to building more sustainable and mutually beneficial relationships between banks and ICS producer companies. Public partners such as the Bureau de Mise à Niveau in Senegal are now deploying mechanisms like the Agence Française de Développement Green Line, which blends investment credit with premiums. Institutions engaged in multilateral efforts (e.g. Clean Cooking Alliance, Clean Production Centre) have committed to sustaining these initiatives beyond the project's lifespan (Int_3 with partner).

However, many interviewees decried high interest rates, and lack of special recognition despite being in the project's ecosystem. The evaluators noted that in Kenya, the National Government has set up several national funds that give credit under low interest rates. Future projects that promote increased access to finance should explore the possibility of using these national funds (Women Enterprise Fund, Youth Enterprise Development Fund, Uwezo Fund).

Sustainability dimension 2 – Contribution to supporting sustainable capacities – scores **27 out of 30 points**.

Sustainability dimension 3: Durability of results over time

Durability of the ICS project results was evident in reduced GHG emissions, job creation, expanded access to technologies, and scaling of interventions. Professionalisation of the ecosystem and adoption of market-driven approaches reinforced sustainability. Widespread stove adoption, strong rural demand, and institutionalisation of practices pointed to lasting impact, despite risks such as financing constraints, resource availability and policy shifts. The resilience of the ICS system and adaptability to emerging clean cooking technologies provided confidence in continued positive outcomes.

By evaluation, over 4 million stoves were sold and in use, sustaining GHG reductions despite technology stacking. Production continues to rise, driven by profits, while emissions reduction remains the ultimate outcome (Int_7 with partner). Both Kenya and Senegal operate in moderately stable but dynamic contexts, with resilience linked to evolving economic conditions, policies and social acceptance. Global momentum for clean cooking (UNDP/FAO, 2025; WHO, 2021; IEA, 2022; World Bank & IEA, 2023; CCA, 2021) ensures demand for ICS, especially in rural areas, for at least the next decade.

Institutionalisation has mainstreamed clean cooking into policies (UNDP/FAO, 2025; Group of Twenty, 2025). Market strengthening is clear: 4 million ICS produced, reaching 25 million beneficiaries, with professionalisation and distribution networks embedding quality control, client service, and compliance (Int_18, 19, 20, 24, 26 with private actors; FGD_5 with partner). Capacity building activities reached thousands of producers and entrepreneurs, many women-led, embedding technical and business skills. Stakeholders now independently implement digital strategies, boosting sales (Int_1, 4, 9, 11–21 with private sector; FGD_3, 5, 6 with partners). Institutional stove demand surged, accounting for 40% of revenues in western Kenya (Int_18, 19 with private actors). Mechanisation and marketing innovations transformed production (Int_2, 9, 10, 24 with private actors; FGD_2, 5 with partners). Associations and SACCOs enhanced resilience and financial inclusion (Int_13 with private sector; FGD_5 with partner). Producers continued accessing equipment beyond contracts (Int_13 with private actor). Global knowledge products on professionalisation, monitoring, reporting and verification, and climate finance support replication (CCA, 2021; IEA, 2022; World Bank & IEA, 2023). End users and installers confirmed satisfaction, expecting quality to improve with competition. Producers are equipped to meet demand, though access to affordable capital remains a challenge. Many rely on personal resources, family loans, SACCOs, and linked FI. Continuous learning is evident, with producers funding extra training slots and adopting digital tools. Plans for a virtual information centre (Int_4 with partner) and accredited ICS curricula by TVET and NITA (Int_4, 5 with partner; Int_8 with GIZ) further institutionalise durability.

Risks remain (GCF, 2023): financial shocks, pandemics, policy bans on fuelwood, and resource constraints (e.g., clay depletion). County governments were urged to allocate resources for awareness, though concerns persist (Int_4 with partner; FGD_5 with partner). Economic pressures and competition from LPG and other clean technologies are rising, yet ICS demand remains strong. Over half of households in Kenya and Senegal still rely on fuelwood (SEMIS, 2025a), with experts projecting ICS demand for two decades (Int_5, 7 with partner; FGD_6 with partner). Users value efficiency, cost savings, and durability (2–3 years' lifespan), ensuring repeat purchases (Int_10, 25 with private actor). Producers report expanding sales, including exports to the Democratic Republic of Congo (DRC), Tanzania and Uganda, with institutional buyers like the United Nations High Commission for Refugees (UNHCR) driving demand (Int_2 with private actor).

In Kenya, liner production and sales surged by 100% to 2,000%, supported by training and quality improvements (Int_9, 11, 19, 28 with private actor). Despite increased output, demand exceeds supply (Int_2, 14 with private actor). Environmental risks such as clay depletion require monitoring. Relocation of operations to household-friendly sites reduced costs and pollution while expanding capacity (Int_11, 21, 26 with private actor; FGD_2 with private actor).

At the African Climate Summit, government delegations expressed interest in replicating the ICS model, reinforcing its long-term relevance. While cleaner solutions such as LPG and electricity pose growing competition, rural transitions are expected to take at least 20 years due to affordability constraints and cultural reliance on firewood and charcoal.

The most critical achievement was the transfer of skills and knowledge across the value chain. Beneficiaries now possess production and business management capacities, enabling rapid adaptation to market dynamics. This adaptability was evident in the integration of institutional cooking products and innovative technologies (Int_19, 28 with private actors). These developments highlighted the resilience of the ICS ecosystem and its potential to evolve with emerging clean cooking trends, while continuing to deliver durable social, economic, and environmental benefits.

Sustainability dimension 3 – Durability of results over time – scores **42 out of 50 points**.

Photo 4: Utilisation of an improved cook stove in Muranga, Kenya (Source/©: Josef Seitz, 2025)



Methodology for assessing sustainability

Table 22: Evaluation matrix for OECD DAC criterion sustainability

Sustainability: assessment dimensions	Basis of assessment	Evaluation design, empirical methods and data sources	Data quality and limitations
Capacities of the beneficiaries and stakeholders	• The baseline survey has described the capacities of all market players before the intervention The evaluation focused on current levels of market development, based on market players' initiatives who are themselves aware of their interest or role • Extent to which 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 (once assistance has drawn to a close)? Are households ready to buy new ICS? Is there any positive or negative perception on ICS? And are ICS producers ready to continue their production and why? • Extent to which the beneficiaries and stakeholders have the resilience to overcome future risks that could jeopardise the intervention's results? Are ICS producers are designing their market development including risks like other solution competition? • Are ICS producers are willing to be together and establish an association to strengthen market development, communication, Etc • Innovation and knowledge transfer: how far consumers are learning from each other to disseminate efficient use of ICS in term of energy consumption? Do producers have an approach of knowledge sharing on ICS production best practices	**Evaluation design:** • Evaluation design and analysis was based on the analytical questions from the evaluation matrix, including specific GCF evaluation questions **Empirical methods and data sources:** • Interviews with different stakeholders including GIZ team • EE, implementing partners and beneficiaries including • Semi-structured interviews with relevant experts in government ministries and agencies • Semi-structured interviews with relevant municipal representatives • Semi-structured interviews with relevant local NGO representatives • Where possible FGDs with community members. Document reviews: • GIZ-EnDev Global Programme, Promotion of Climate-Friendly Cooking feasibility study (2019), Baseline survey, GCF proposal, Stakeholder mapping report (2022) • ToC matrix, mid-term evaluation report, Business development strategy • For ICS entrepreneurs (Kenya), Knowledge sharing strategy and action plan (2022), Country strategy for Kenya (BMZ, 2018) • Nationally Determined Contributions 2015, Environmental and Social Assessment (2019)	• Data from project reports were available and of good and reliable quality • Evaluators collected information and data from a cross-section of stakeholders through interviews and FGDs, which was consistent with the reports • Data quality from interviews and FGD is expected to be good as the involvement of stakeholders and partners in project implementation seems to be high. **Overall data quality for this assessment dimension:** good
Contribution to supporting sustainable capacities	• Extent to which the project has 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 • Extent to which the project has contributed to strengthening the resilience of the beneficiaries and stakeholders • Extent to which the project has contributed to strengthening the resilience of particularly disadvantaged groups • Extent to which the trainings resulted in changes within the project target groups (behavioural change) • Extent to which Intermediary stakeholders (e.g. training and service providers) have capacities to implement and further develop Business Development Strategies (BDS) • Extent to which the exit strategy (in combination with follow-on project) has resulted in the documentation and	**Evaluation design:** • Evaluation design and analysis was based on the analytical questions from the evaluation matrix, including specific GCF evaluation questions Empirical methods and data sources: • Document reviews • Interviews with different stakeholders including GIZ team • EE, implementing partners and beneficiaries including • Semi-structured interviews with relevant experts in government ministries and agencies • Semi-structured interviews with relevant municipal representatives • Semi-structured interviews with relevant local NGO representatives • Where possible FGDs with community members	• Same as above **Overall data quality for this assessment dimension:** good

	sharing of learnings (also with regard to component I)		
Durability of results over time	• To what extent can the positive (and any negative) results of the intervention be deemed durable? • 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 influence of outcomes and outputs extends and strengthens beyond the implementation period • Assessment of the risks to the sustainability of the project deliveries and set up mitigation measures • Producers capacity reinforcement to satisfy needs expressed by the market • Operating a training strategy based on professional training curricula including ICS modules. This indicator confirms that a training mechanism is in place without donor support • Lessons learnt in the both countries, best practices identification, new challenges	**Evaluation design:** Evaluation design and analysis will be based on the analytical questions from the evaluation matrix, including specific GCF evaluation questions **Empirical methods and data sources:** • Document reviews • Interviews with different stakeholders including GIZ team • EE, implementing partners and beneficiaries including • Semi-structured interviews with relevant experts in government ministries and agencies • Semi-structured interviews with relevant municipal representatives • Semi-structured interviews with relevant local NGO representatives • Where possible FGDs with community members	Same as above

4.8 Key results and overall rating

With an overall score of 93 out of 100 points, the Promotion of Climate-Friendly Cooking project in Kenya and Senegal received an overall rating of level 1 (highly successful). The evaluation team found the project to be highly relevant and coherent. It was also highly successful in achieving its results and in creating impact. In terms of its efficiency and sustainability of its results, the project was considered as successful.

The main reasons for the project's success lied in the already well-established implementation and cooperation structure of GIZ and the use of experiences obtained through the EnDev project as basis for the project design. In addition, the partner governments highly appreciated the project results making a clear and substantial contribution to their national climate change targets. The project's market-based approach allowed to select the most performant private actors, while its participatory approach brought together all actors of the ICS sector. Finally, the combined financing from two donor organisations (GCF, BMZ) and the project partners has created very strong synergies. The strong political commitment of the governments was also decisive for the project's success.

Table 23: 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	30	**94**	Level 1: highly successful
	Alignment with the needs and capacities of the beneficiaries and stakeholders	30	28		
	Appropriateness of the design*	20	18		
	Adaptability – response to change	20	18		
Coherence	Internal coherence	50	50	**95**	Level 1: highly successful
	External coherence	50	45		
Effectiveness	Achievement of the (intended) objectives	30	30	**97**	Level 1: highly successful
	Contribution to achievement of objectives	30	30		
	Quality of implementation	20	19		
	Unintended results	20	18		
Impact	Higher-level (intended) development changes/results	30	24	**94**	Level 1: highly successful
	Contribution to higher-level (intended) development results/changes	40	40		
	Contribution to higher-level (unintended) development results/changes	30	30		
Efficiency	Production efficiency	70	63	**90**	Level 2: successful
	Allocation efficiency	30	27		
Sustainability	Capacities of the beneficiaries and stakeholders	20	16	**85**	Level 2: successful
	Contribution to supporting sustainable capacities	30	27		
	Durability of results over time	50	42		
Mean score and overall rating		100	**93**		Level 1: highly successful

Table 24: 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 OECD DAC criteria effectiveness, impact and sustainability are knock-out criteria: If one of the criteria is rated level 4 or lower, the overall rating cannot be higher than level 4 even though the mean score may in fact be higher.	

5 Conclusions and recommendations

5.1 Key findings and factors of success and failure

Factors of success

The evaluation identified a number of factors to help explain the success of the project, particularly in terms of project design and implementation:

- The project was based on already well-established experiences of the EnDev project.
- The established implementation and cooperation structure of GIZ allowed a quick start.
- The co-financing of two donor organisations created strong synergies.
- Implementation through NGOs enabled close contact with the population and local private sector.
- The participatory approach brought together all actors of the ICS sector, including government institutions, private sector, finance institutions and decentralised authorities.

The most relevant success factors in terms of implementation strategy include:

- The market-based approach allowed to select the most performant private actors.
- The project results made a clear and substantial contribution to the national climate change targets.
- The project also responded to the demand of the governments to not only focus on ICS, but on clean cooking technologies at the strategy level.

In addition, the project partners and beneficiaries showed a very strong ownership in the implementation of the activities.

Challenges

The evaluation also identified some factors representing challenges for the project. In both countries, Senegal and Kenya, there is significant progress in achieving their goals in climate action (SDG 13), but they still face significant challenges regarding the achievement of the other SDGs, namely SDG 3 (healthy lives), SDG 5 (gender equality), SDG 7 (access to energy) and SDG 15 (forests and biodiversity). For producers, key challenges include limited access to financing, high material costs, raw material shortages, low logistics capacity, and elevated loan interest rates.

Findings regarding innovativeness

The project supported innovation, in particular by introducing successfully digital marketing tools, which were highly appreciated by the beneficiaries.

Findings regarding coherence in climate finance

The project was one of several GCF (co)funded and energy-related projects in Kenya, Senegal or in ‘multiple countries programmes’ which include both countries. In Kenya, the project entitled Universal Green Energy Access Programme (UGEAP) (FP 027) aims to contribute to universal access to electricity in sub-Saharan Africa by scaling up investments in renewable energy from local financial markets and the international private sector (GCF, 2025a). In Kenya and Senegal, the Participation in Energy Access Relief Facility (EARF) project (FP148) is a concessional debt fund that is intended to provide energy access companies with vital liquidity in the form of low interest, unsecured junior loans. The EARF project focuses on energy access companies which are playing a major role in providing clean energy access to vulnerable people, but they now find their continued existence in peril due to the economic effects of the Covid-19 pandemic (GCF, 2025b).

Findings regarding gender equity

The project actively fostered gender equality and has developed a GAP, including actions, targets and indicators for each activity (GIZ, 2018a). The GAP was exhaustive, actively monitored in the project's GAP M&E plan and annually reported to the donor organisations (GIZ, 2020b, 2021c, 2022c, 2023d, 2024c). Monitoring data was disaggregated by gender (GIZ, 2025b). Additionally, the project has carried out several gender-related studies and implemented gender-specific actions, resulting in more than 10 million women having improved access to low-emission cooking energy sources (GIZ, 2019d). The project also created an enabling environment for the economic success and advancement of women and to support women's leadership in the entrepreneurial ecosystem (GIZ, 2025f, 2025j, 2025k) (For more detailed information, please refer to hypothesis 4 under Impact dimension 2.)

Findings regarding the Agenda 2030

The project's most relevant contribution regarding the Agenda 2030 lies in the avoidance of more than 5 million tonnes CO2 emissions (SDG 13, combat climate change). In addition, it contributed to improve the access of more than 20 million people, including more than 10 million women, to low-emission cooking energy sources (SDG 7). Regarding SDG 5 (Gender equality and empowerment of all women and girls), the project clearly contributed to women's economic empowerment by strengthening their business capacities and increasing their revenues. Moreover, the increased sales of ICS had positive impacts on the livelihood of women by reducing air pollution due to cooking smoke exposure and time needed for firewood collection and cooking tasks (SDG 3, ensure healthy lives and promote well-being). Reduced fuel consumption by 70% also lead to monetary savings.

Universality, shared responsibility and accountability

The project has been highly successful, not only in integrating into partners' systems and structures, but also in combining funding from two donors. The evaluation also found evidence of the governments' willingness to replicate the project activities through the government budgets.

Interplay of economic, environmental and social development

The project has been highly successful in pursuing a holistic approach to sustainable development. Economic development by strengthening private sector companies is one of the key objectives of the project. It also contributes to the protection of natural resources by reducing deforestation. Through its activities to foster participation and by addressing the needs of vulnerable population groups in rural areas, the project also covers the social dimension of sustainable development.

The project has successfully addressed environmental and social challenges. It has undergone an environmental and social impact assessment and established an environmental and social management plan and regularly reported on its progress (GIZ, 2019e, 2022a, 2023b, 2024a, no date a).

The evaluation did only reveal minor unintended negative results.

Inclusiveness/leave no one behind

The project included vulnerable groups, as it focused on strengthening MSMEs and worked in favour of vulnerable rural population groups. The project took the needs of women into account, primarily by creating an enabling environment for the economic empowerment of women and supporting women's leadership in the entrepreneurial ecosystem.

5.2 Recommendations

For partners and GIZ

The evaluation resulted in several recommendations based on interviews with stakeholders and the conclusions of the evaluation team.

In terms of **financing mechanisms**, interviewees stated in both countries that the lack of working capital represents the major challenge for MSMEs to develop their businesses. Although, the project involved the finance sector in its activities, it should have been done at an earlier stage. In addition, innovative financial mechanisms, such as SACCOs, investment premium scheme, an improved match-making between ICS private actors and financial institutions as well as promotion of existing government funds are needed to achieve the transition from MSMEs to SMEs. These recommendations are valid for upcoming similar projects and for governments aiming at continuing the project activities.

Regarding **regulations** on ICS, it might also be useful to verify if the elaboration and implementation of regulations on ICS, e.g. through the interdiction of traditional (inefficient) stoves, might be feasible. Regulations might also focus on the quality control of produced ICS.

With respect to foster **learning**, it would have been useful to foster more exchange between Senegalese and Kenyan stakeholders in order to improve mutual learning.

In terms of **project management**, potentially upcoming projects should put in place measures to digitalise the data management for monitoring purposes.

Promotion of climate-friendly cooking in Kenya and Senegal

Solid biomass accounts for over 15% of global energy consumption, contributing significantly to CO2 emissions and short-lived climate pollutants. Replacing traditional open fires with improved cook stoves (ICS) presents a significant global mitigation opportunity. The project, funded by GCF and BMZ, strengthened the ICS market development by professionalising the ICS production, expanding the distribution and retail chains, facilitating access to market-based finance, raising consumer awareness and creating an enabling market environment. It has, therefore, significantly contributed to achieving the NDCs of the two partner countries.

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Annex: Evaluation criteria, dimensions and questions

Relevance

OECD DAC Criterion Relevance - Is the intervention doing the right things?
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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Alignment with policies and priorities	BMZ Standard	Mandatory	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) • For global and sector projects please use CPE factsheet on GV	• Were the context, problem, needs and priorities well analysed and reviewed during project initiation? • To what extent is the project aligned with national development plans, national plans of action on climate change, or sub-national policy as well as project and priorities of national partners?
	Context / Conflict Sensitivity (fragility)	Applicable	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, Safeguard Conflict and Context Sensitivity documents	
Alignment with the needs and capacities of the beneficiaries and stakeholders	BMZ Standard	Mandatory	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	
	Context / Conflict Sensitivity (fragility)	Applicable	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	
	Context / Conflict Sensitivity (fragility)	Applicable	To what extent were potential (security) risks for (GIZ) staff, partners, target groups/final beneficiaries identified and considered?		
	BMZ Standard	Mandatory	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	• 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	Does the project account in activities and planning for local power dynamics and how project interventions affect different marginalised groups as beneficiaries?

Note: The evaluation matrix, including methodology, is included in the individual chapters on the OECD DAC criteria in this report.
Note: Questions in *italic* are descriptive 'learning and help questions' specified by BMZ that are relevant for the analysis but not for the final assessment. Standard questions are defined in 'Evaluation criteria for German bilateral cooperation' (BMZ, 2021)

			differentiation can be made by age, income, gender, ethnicity, etc.?		
Appropriateness of the design[3]	BMZ Standard	Mandatory	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 strategic reference frameworks and with possible overloading • Strategic focusing	Are the planned project objectives and outcomes relevant and realistic to the situation on the ground?
	BMZ Standard	Mandatory	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?	• Is the project ToC and intervention logic coherent and realistic? Does the ToC and intervention logic hold or does it need to be adjusted? • Do outputs link to intended outcomes which link to broader paradigm shift objectives of the project? • Are the identified, planned inputs and strategies realistic, appropriate and adequate to achieve the results? Were they sequenced sufficiently to efficiently deliver the expected results? • How realistic are the risks and assumptions of the project?
	BMZ Standard	Mandatory	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 regarding the sustainability dimensions in terms of Agenda 2030 (economic, ecological and social development)	
Adaptability – response to change	BMZ Standard	Mandatory	To what extent has the intervention responded to changes in the environment over time (risks and potentials)?	• Reaction to changes during project including modification offers (e.g., local, national, international, sectoral changes, including state-of-the-art sectoral know-how)	How has been the project's ability to adapt and evolve been based on continuous lessons learnt and the changing development landscape? Please account for factors both within the accredited and executing entities and external

(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 based on 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 strategy). In GIZ the ToC 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/peace needs: 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. Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 55/135 and the iPCA Writing Template.
(6) Escalating factors/ dividers: e.g., destructive institutions, structures, norms and behaviour. For more details on 'dividers' see: GIZ (2007): 'Peace and Conflict Assessment. Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 135 and the iPCA Writing Template.
(7) All projects in fragile contexts, projects with FS1 or FS2 markers and all transitional development assistance projects should weaken escalating factors/dividers and must mitigate risks in the context of conflict, fragility and violence (and human rights). 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.

Coherence

OECD DAC Criterion Coherence - How well does the intervention fit?

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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Internal coherence	BMZ Standard	Mandatory	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 realise synergies within German development cooperation	
	BMZ Standard	Mandatory	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 consider projects of different German resorts/ministries	
	BMZ Standard	Mandatory	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)?		
External coherence	BMZ Standard	Mandatory	To what extent does the intervention complement and support the partner's own efforts (principle of subsidiarity)?		• Who are the partners of the project and how strategic are they in terms of capacities and commitments? • Is there coherence and complementarity by the project with other actors for other local climate change interventions? • To what extent has the project complimented other ongoing local level initiatives on climate change adaptation or mitigation?
	BMZ Standard	Mandatory	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?	
	BMZ Standard	Mandatory	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 realise synergies with interventions of other donors at the impact level	
	BMZ Standard	Mandatory	To what extent are common systems (together with partners/other donors/international organisations) used for M&E, learning and accountability?		To what extent are country-level systems for project management or M&E utilised in the project?

Effectiveness

OECD DAC Criterion Effectiveness - Is the intervention achieving its objectives?

'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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Achievement of the (intended) objectives[1]	BMZ Standard	Mandatory	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	•Are the outputs being achieved in a timely manner? Is this achievement supportive of the ToC and pathway identified? •What and how much progress has been made towards achieving the overall outputs and outcomes of the project (including contributing factors and constraints)? How strong is the evidence base for the achievement of outcomes, and to what extent are they based on the application of a well-defined method? •To what extent did the design of the project help or hinder achieving its own goals? •To what extent is the project able to demonstrate changes against the baseline (assessment in approved funding proposal) for the GCF investment criteria (including contributing factors and constraints)?
	Context / Conflict Sensitivity (fragility)	Applicable	For projects with FS1 or FS2 markers: To what extent was the project able to strengthen deescalating factors/ connectors/ capacities of peace?[2, 4]		
Contribution to achievement of objectives	BMZ Standard	Mandatory descriptive learning question	*To what extent have the intervention's outputs been delivered as originally planned (or as modified to cater for changes in the environment)?*		
	BMZ Standard	Mandatory	To what extent have the delivered outputs and increased capacities been used and equal access (e.g., in terms of physical, non-discriminatory and affordable access) guaranteed?		
	BMZ Standard	Mandatory	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)	To what extent has the project contributed to an enabling environment? What is the strength of evidence for this finding based on the scorecard assessment?
	BMZ Standard	Mandatory	To what extent has the intervention contributed to the achievement of objectives at the level of the intended beneficiaries?		To what extent are the beneficiaries satisfied with the project's results?
	BMZ Standard	Mandatory	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.)?		•Do all groups of beneficiaries know their rights and/or benefits from project activities/interventions? •How do the results for women compare to those for men? •Is the decision-making process transparent and inclusive of all relevant marginalised groups?

					• Did the project sufficiently address cross-cutting issues, including gender?
	BMZ Standard	Mandatory descriptive learning question	*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).	What are project's lessons learnt, failures/lost opportunities to date? What might have been done better or differently?
	BMZ Standard	Mandatory descriptive learning question	*Which external factors were decisive for achievement/non-achievement of the intervention's intended objectives (considering 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).	
Quality of implementation	BMZ Standard	Mandatory	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 marginalised 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	• How well is country ownership reflected on the project governance, coordination and consultation mechanisms or other consultations? • To what extent did project deal with issues and risks in implementation in an efficient manner? • To what extent was the M&E tools such as the ToC and log frame used in performance management and progress reporting? • To what extent did the project's M&E data and mechanism(s) contribute to achieving project results? • Were there clear baseline indicators and/or benchmark for performance measurements? How were these used in project management? • To what extent and how did the project apply adaptive management? • To what extent has the project relied on and goes beyond sex-disaggregated data per population statistics? • Are the project governance mechanisms functioning efficiently?
Unintended results	BMZ Standard	Mandatory	To what extent can unintended positive/negative direct results (social, economic, environmental and among vulnerable beneficiary groups) be observed/anticipated?	• The focus is on the outcome level, but for the analysis the unintended effects can also be included on the output level	• Can any unintended or unexpected positive or negative effects be observed as a consequence of the project's interventions? • What factors have contributed to the unintended outcomes, outputs, activities, results? •
	Context / Conflict Sensitivity (fragility)	Applicable	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 'destructive' actors (also regarding human rights violations)?		
	BMZ Standard	Mandatory	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	
	Context / Conflict Sensitivity (fragility)	Applicable	To what extent have risks and unintended negative results in the context of conflict, fragility and violence[5] been monitored (context and/or conflict-sensitive monitoring) in a systematic way?		

(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 considered when evaluating the first assessment dimension.
(2) Deescalating factors/ connectors/ peace needs: 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. Ein methodischer Rahmen zur konflikt- und friedensbezogenen Ausrichtung von EZ-Maßnahmen', p. 55/135 and the iPCA Writing Template.
(3) Escalating factors/ dividers: e.g., destructive institutions, structures, norms and behaviour. For more details on 'dividers' see: GIZ (2007): 'Peace and Conflict Assessment. 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 development assistance projects should weaken escalating factors/dividers and must mitigate risks in the context of conflict, fragility and violence (and human rights). 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'. Supplement to: The 'Guidelines on designing and using a results-based monitoring system.', p.27 and 28.

Impact

OECD DAC Criterion Impact (higher-level development results) - What difference does the intervention make?

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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Higher-level (intended) development changes[1]	BMZ Standard	Mandatory	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 programme objective indicators (programme proposal), if it is not an individual measure • Potential basis for assessment: programme objective indicators, identifiers, connection to the national strategy for implementing Agenda 2030, connection to SDGs	• How has the project contributed to achieving stronger and more coherent integration of shift to low-emission sustainable development pathways and/or increased climate resilient sustainable development (GCF RMF/PMF Paradigm Shift objectives)? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward? • To which extent has the project contributed or will be contributing to the desired paradigm shift? What is the strength of evidence for this based on the scorecard approach? • Which role has the project played in the provision of "thought leadership", "innovation" or "unlocked additional climate finance" for climate change adaptation/mitigation in the project and country context? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward.
	BMZ Standard	Mandatory	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.)		

	BMZ Standard	Mandatory	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.) (Specify time frame where possible.)		
Contribution to higher-level (intended) development changes	BMZ Standard	Mandatory	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, considering 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	
	BMZ Standard	Mandatory	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	
	BMZ Standard	Mandatory	To what extent has the intervention achieved its (original and, where applicable, revised) development objectives at the level of the intended beneficiaries?		
	BMZ Standard	Mandatory	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.).		
	BMZ Standard	Mandatory descriptive learning question	*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)	
	BMZ Standard	Mandatory descriptive learning question	*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). • Consider the activities of other actors or other policies, framework conditions, other policy areas, strategies or interests (German ministries, bilateral and multilateral development partners)	
	BMZ Standard	Mandatory	To what extent has the intervention achieved structural or institutional changes (e.g., for organisations, systems and regulations)?		
	BMZ Standard	Mandatory	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	

	BMZ Standard	Mandatory descriptive learning question	*How would the situation have developed without the intervention?*	• usually qualitative reflection, quantitative approaches welcome	
Contribution to higher-level (unintended) development changes	BMZ Standard	Mandatory	To what extent can higher-level, unintended development changes (social, economic and environmental dimensions and their interactions, considering political stability) be identified/foreseen? (Specify time frame where possible.)		• Can any unintended or unexpected positive or negative effects be observed as a consequence of the project's interventions? • What factors have contributed to the unintended outcomes, outputs, activities, results?
	Context / Conflict Sensitivity (fragility)	Applicable	To what extent did the project have (unintended) negative or escalating effects on the conflict, context of fragility or human rights (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, context of fragility or human rights (e.g., conflict dynamics, violence, legitimacy of state and non-state actors/institutions)?		
	BMZ Standard	Mandatory	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 agreed) positive results and synergies between the ecological, economic and social development dimensions have been monitored and exploited	
	BMZ Standard	Mandatory	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.)		

(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 considered 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.

Efficiency

OECD DAC Criterion Efficiency - How well are resources being used?

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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Production efficiency	BMZ Standard	Mandatory descriptive learning question	*How are the intervention's inputs (financial, human and material resources) distributed (e.g.by instruments, sectors, sub-interventions, considering the cost contributions of partners/executing agencies/other beneficiaries and stakeholders etc.)?*	• Description of the data: Costs per output, type of costs, agreed and provided partner contributions • Description of the deviations between original planned costs and actual costs (with comprehensible justification, changes are certainly desirable for increased efficiency)	Are financial resources/project activities explicitly allocated to enable women, youth, people with disability, indigenous people and other marginalised groups to benefit from project interventions?
	BMZ Standard	Mandatory	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 project with focus on economically use of resources / cost risks • The overarching costs of the project are in an appropriate proportion to the costs of the outputs	Have project resources been utilised in the most economical, effective and equitable ways possible (considering value for money; absorption rate; commitments versus disbursements and projected commitments; co-financing, etc.)
	BMZ Standard	Mandatory	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 maximisation (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 same resources, under same conditions and with same or better quality	
	BMZ Standard	Mandatory	Were the outputs (products, investment goods and services) produced on time and within the planned time frame?		
Allocation efficiency	BMZ Standard	Mandatory descriptive learning question	*By what other means and at what cost could the results achieved (higher-level project objective) have been attained?*		
	BMZ Standard	Mandatory	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	What, if any, alternative strategies would have been more effective in achieving the project objectives?

				• The partner contributions are proportionate to the costs for the outcome of the project	
	BMZ Standard	Mandatory	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 maximising 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 realisation 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/complementarity within German DC sufficiently avoided	

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

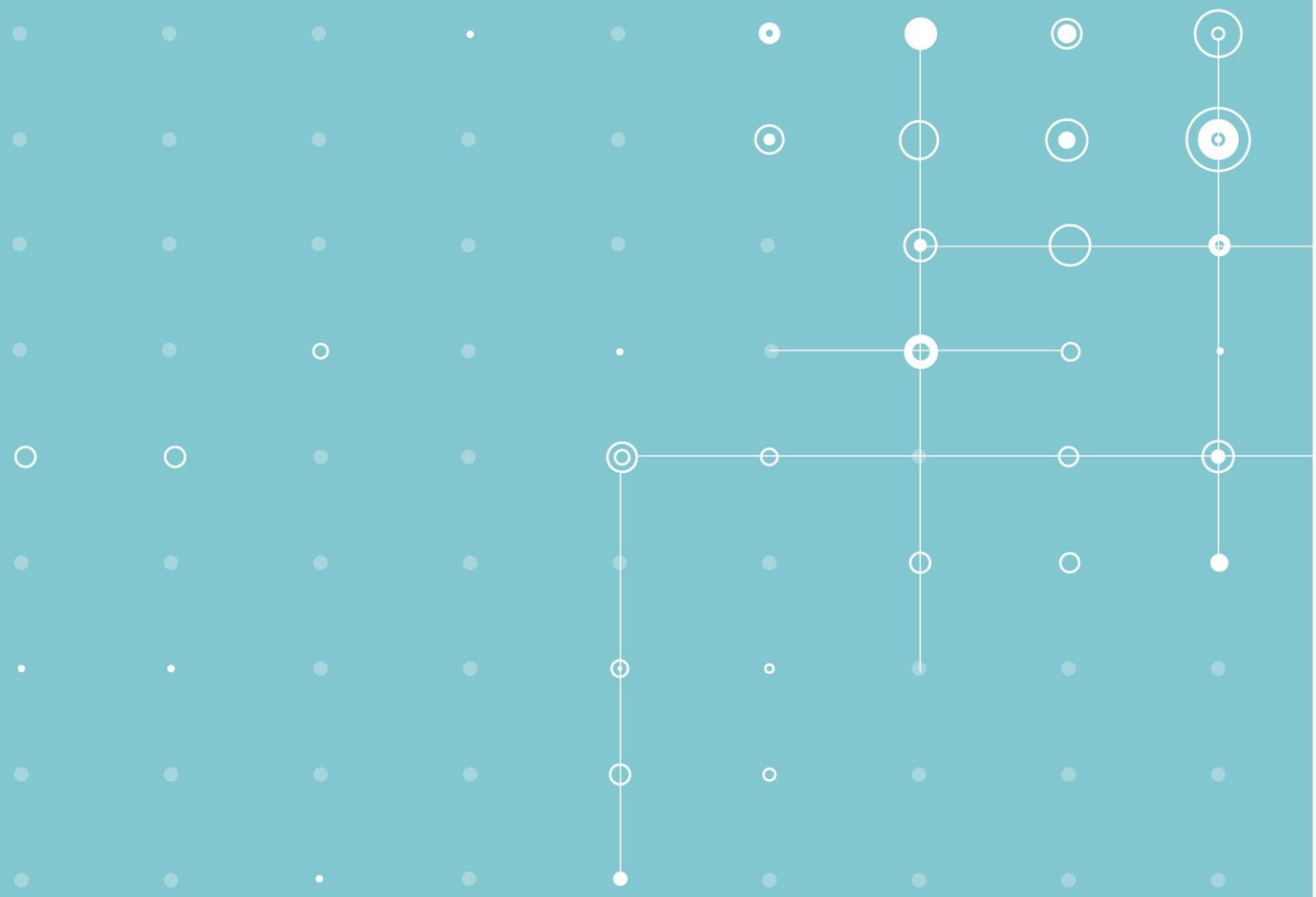
Sustainability

OECD DAC Criterion Sustainability - Will the benefits last?

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	Question type	Application in this evaluation	Evaluation questions	Clarifications	GCF evaluation questions
Capacities of the beneficiaries and stakeholders	BMZ Standard	Mandatory	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).	Are the actions and results from project interventions likely to be sustained, ideally through ownership by the local partners and stakeholders?
	BMZ Standard	Mandatory	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?		
Contribution to supporting sustainable capacities	BMZ Standard	Mandatory	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	• 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	• Were the modes of deliveries of the outputs appropriate to build essential/necessary capacities, promote national ownership and ensure sustainability of the result achieved? • How effective were the exit strategies and approaches to phase out assistance

			and to limit the impact of any negative results?	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).	provided by the project including contributing factors and constraints?
	BMZ Standard	Mandatory	To what extent has the intervention contributed to strengthening the resilience of the beneficiaries and stakeholders (individuals, groups and organisations, partners and executing agencies)?		
	BMZ Standard	Mandatory	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.)		
Durability of results over time	BMZ Standard	Mandatory descriptive learning question	*How stable is the context in which the intervention operates?*		
	BMZ Standard	Mandatory descriptive learning question	*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	• Which factors of the project achievements are contingent on specific local context or enabling environment factors? • What are the key factors that will require attention in order to improve prospects of sustainability, scalability or replication of project outcomes/outputs/results?
	BMZ Standard	Mandatory	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 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)	



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