**Project Completion Report Validation**

**Seed Development Project**

**Republic of the Sudan**

**Date of validation by IOE: December 2019**

# Basic project data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | *Approval (US$ m)* | | *Actual (US$ m)[[1]](#footnote-1)* | |
| Region | Near East, North Africa and Europe Division |  | Total project costs | 17.46 | | 10 | |
| Country | Republic of the Sudan |  | IFAD grant and percentage of total | 10.07 | 57.7% | 9.12 | 91% |
| Grant number | I-DSF-8094-SD |  | Government | 3.42 | 19.6% | 0.98 | 10% |
| Type of project (subsector) | Rural development-value chain |  | Cofinancier 1 |  |  |  |  |
| Financing type | IFAD-initiated and exclusively financed |  | Cofinancier 2 |  |  |  |  |
| Financing terms | Grant under debt sustainability framework (DSF) |  | Cofinancier 3 |  |  |  |  |
| Date of approval | 13 Dec 2011 |  | Cofinancier 4 |  |  |  |  |
| Date of financial signature | 24 Feb 2012 |  | Beneficiaries (seed grower/seed producer/private sect) | 3.98 | 22.8% |  | - |
| Date of effectiveness | 24 Feb 2012 |  | Other sources |  |  |  |  |
| Financing agreement amendments | February 2017 |  | Number of beneficiaries | 108,000  69,000 (revised at MTR) | | 52,494 direct  67,906 indirect (PCR) | |
| Financing closure extensions | None |  | Project completion | 31 March 2018 | | 31 March 2018 | |
| Country programme managers | Tarek Ahmed  (Jul 2017-present), Mohamed Abdelgadir (Jun 2016-Jul 2017),  Hani Abdelkader Elsadani Salem  (Jan 2013-May 2016), Mohamed Abdelgadir (2012-2013),  Rasha Omar  (2004-2012) |  | Financing closing date | 30 Sep 2018 | | 30 Sep 2018 | |
| Regional director(s) | Khalida Bouzar |  | Mid-term review |  | | 29 Sep 2014 | |
| Project completion report reviewer | Diane Abi Khalil |  | IFAD financing disbursement at project completion (%) |  | | 100% (in the currency of financing, SDR) | |
| Project completion report quality control panel | Fumiko Nakai |  | Date of the project completion report |  | | June 2018 | |

Source: President's report, Project Completion Report (PCR), IFAD database (Oracle Business Intelligence).

# Project outline

1. **Introduction.** Following the approval in December 2011, the financing agreement for the Seed Development Project (SDP) became effective in February 2012. The project completed in March 2018 after six years of implementation. A project completion report validation (PCRV) is normally prepared based on a desk review, but this PCRV has also benefited from the in-country mission in the context of a country strategy and programme evaluation (CSPE) conducted in September and October 2019.
2. **Project area.** SDP operated in seven localities in the two Kordofan States: (i) Rahad, Um Ruwaba and Sheikan in North Kordofan; and (ii) Abbassiya, Rashad, Atadamoon and Abu Gubeiha in South Kordofan.[[2]](#footnote-2) These seven localities are characterised by a diversified production system. The SDP area overlapped with that of Western Sudan Resources Management Programme (WSRMP), another IFAD-supported project implemented between 2005 and 2017.
3. **Project goal, objectives and components.** The project’s overall goal, as stated in the President's report, was to improve the food security, incomes and resilience to shocks of smallholder producers in rainfed areas of North Kordofan and South Kordofan. Its objective was to increase crop productivity for smallholder producers adopting certified seeds in North Kordofan and South Kordofan. This objective statement was slightly adjusted to include “improved seeds” in addition to certified seeds during the course of project implementation.[[3]](#footnote-3)
4. The project comprised four components:[[4]](#footnote-4)
5. Component 1 *Strengthening and development of the institutional and regulatory environment* (estimated at 11 per cent of project total cost). The main expected outcome under this component was the creation of a favourable policy and institutional environment for the seed industry. This was to be achieved through: (i) introduction of an appropriate legislation for the seed industry particularly in relation to plant variety protection; (ii) capacity building of the Federal Seed Administration (FSA) to carry out its legal mandate of seed quality assurance; and (iii) establishment of a multi-stakeholder forum that brings together Government, the private sector, NGOs and farmers to discuss policy issues on a regular basis and prepare a national seed policy.
6. Component 2 *Improvement of the seed production system* (estimated at 18 per cent of project total cost). This component aimed at developing an economically viable seed production system that meets farmers' demands. This outcome was to be achieved through improved capacity of the Agricultural Research Centre (ARC) to conduct demand-driven participatory research, production of improved seeds, improve capacity of extension services and technical support to seed producers.
7. Component 3 *Support* s*eed market development* (estimated at 52 per cent of the project total cost). This component aimed at developing a certified and improved seed market delivery mechanism. This outcome was to be achieved by: (i) developing effective demand for certified seed;[[5]](#footnote-5) (ii) linking seed growers groups (SGGs) and grain producers groups (GPGs) to financial institutions and input suppliers; (iv) enabling the private sector to select the best option for creating a marketing channel for certified seeds; (v) empowering existing SGGs and GPGs to plan their businesses and access necessary inputs; and (vi) developing a seed marketing information database.
8. Component 4 *Project coordination and management* (estimated at 19 per cent of project total cost).
9. **Target group.** The project targeted smallholder producers, traders/ agro-dealers, women and households headed by women or young people. The target group consisted of two categories: (i) grain producers who would buy certified seeds to produce grain for food; and (ii) seed growers, who were business minded young farmers interested in seed multiplication as an income generating activity. Both groups of farmers were to be organised into formal groups (i.e. SGGs, GPGs) under the umbrella of the community development committees (CDCs).
10. **Financing.** The project cost was estimated at US$17.46 million, financed by IFAD through a Debt Sustainability Framework grant of US$10.07 million. The planned contribution of the Government amounted to US$3.42 million. The planned contribution of the seed growers and grain producers amounted to US$2.50 million and the one of the private seed companies (PSCs) to US$1.48 million (8.5 per cent). According to the Project Completion Report (PCR), beneficiaries' contribution was largely in-kind and was not quantified. The Government actual contribution was also reportedly substantially underestimated.[[6]](#footnote-6) Furthermore, “private companies' contribution foreseen at project design was abandoned as these companies provided direct support (input and extension services) to the seed growers and demonstrations plots.”[[7]](#footnote-7) The table below shows the planned and actual project costs by financier and by component.

Table 1

**Project cost by financier (US$ million)**

|  |  |  |  |
| --- | --- | --- | --- |
| Funding Sources | Planned expenditure at appraisal | Actual expenditure | % disbursed |
| IFAD (grant) | 10.07 | 8.57a  (9.12b) | 100% in SDRd |
| Government | 3.42 | 0.5a  (0.98c) | 28.6 |
| Seed grower and grain producers | 2.50 | - | - |
| Private seed companies | 1.48 | - | - |
| **Total** | **17.47** | **9.07**  **(10)** |  |

Source: President’s report and PCR.

a According to the PCR page ii.

b According to IFAD database, which should indicate an updated figure.

c According to the PCR narrative (paragraph 84) – the amount is different from PCR page ii.

d The approved amount was SDR 6.35 million, of which SDR 6.349 million disbursed. Discrepancy in the disbursement rate in US$ and SDR terms is due to the exchange fluctuation between US$ and SDR.

Table 2

**Project cost by component (US$ million)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Allocation at appraisal | Actual expenditure | % disbursed | % of total actual expenditure |
| Strengthening and development of the institutional and regulatory environment | 1.86 | 1.16 | 62 | 12.8 |
| Improvement of the seed production system | 3.10 | 1.41 | 45.4 | 15.5 |
| Seed supply/market development | 9.04 | 3.32 | 36.7 | 36.6 |
| Project coordination and management | 3.46 | 3.18 | 92 | 35 |
| **Total** | **17.46** | **9.07** | **52** | **100** |

Source: President's Report. Design report and PCR.

1. **Project implementation.** The Federal Ministry of Agriculture was the lead agency for SDP and responsible for its oversight. It chaired the Inter-Ministerial Steering Committee. The management structure of the project was composed of the Project Coordination Unit (PCU) and two State Coordination Units. The management of SDP was fully integrated within the project coordination unit for the WSRMP.
2. **Intervention logic.** SDP aimed at increasing crop productivity of smallholder farmers through adoption of certified and improved seeds. This was to be achieved, on the one hand, through improving seed production and ensuring availability of certified and improved seeds, and on the other hand, through linking smallholder grain producers to these better quality seeds and technologies as well as other inputs and services. Complementary to and in support of these, the project was intended to contribute to developing a more conducive regulatory and institutional framework for the seed industry.
3. SDP capitalized on the experience of the South Kordofan Rural Development Programme[[8]](#footnote-8) and the WSRMP using the models of CDCs, the multi-disciplinary extension teams, and the establishment of microfinance initiatives that facilitate the access of the poor and smallholders to credit.
4. **Changes during implementation.** The main changes made included the following:
5. The revision of the strategy/approach for private sector engagement in view of little progress in the initial two years with the partner PSC identified initially (Arab Sudanese Seeds Company, ASSCO).[[9]](#footnote-9) Specifically, some of the restrictions that were not attractive for the private sector were removed, for example, concerning the source of certified seeds for PSCs and how they are eventually produced or marketed. The project also moved away from offering a guarantee to purchase the seeds from the producers and instead shifted to facilitating linkages between SGGs, GPGs, PSCs, input suppliers within and outside the project area.
6. Slight adjustment of the project objective to include “improved seeds” along certified seeds.
7. Inclusion of medium size farmers (four envisaged) with suitable land and skills for seed growing.
8. The adjustment of the target to 69,000 smallholder farmers instead of 108,000. This reduction was justified by correcting the initial calculation at design inclusive of the 2018 agricultural season, which could not have covered within the project period completing in March 2018.
9. The expansion to Um Ruwaba in North Kordofan and Rashad in South Kordofan.
10. The financing agreement was amended in February 2017. The budget category "Fund" was reduced by 78 per cent due to the discontinuation of the grant programme to PSCs. The contractual services category was increased by 56 per cent to cover more knowledge management activities.
11. **Delivery of outputs.** Annex IV presents physical progress reported in the PCR. Many entries are for the number of workshops, training courses or technical assistance/consultant inputs, which do not really convey the sense of achievement levels. Still, the following points can be highlighted: (i) in terms of the number of SGGs and farmers accessing advisory services for production, the achievement was close to 100 per cent of the targets (although high drop-out rate of seed growers was an issue as discussed below); (ii) low achievement rates against the targets were recorded for outputs related to registered/certified seeds (whether production or their use), reflecting the shift of focus to improved seeds (and not strictly on certified seeds);[[10]](#footnote-10) and (iii) outputs related to financial services and insurance were also lower than the targets, reflecting the challenges faced in these services for rainfed agriculture.

# Review of findings

## Core criteria

**Relevance**

1. SDP was aligned with the Agriculture Revival Programme of the Government in terms of improved crop productivity. It was aligned with the provisions of the Seed Act 2010, particularly in developing the capacity of the Federal Seed Administration to play its certification and inspection roles. SDP was also in line with the decision of the Ministry of Finance and National Economy to phase out the free distribution of certified seeds given the ineffectiveness of such an operation and support instead the development of a viable private sector-led seed industry. The project was in line with the IFAD’s country strategic opportunities programme 2009-2012 mainly in increasing access of poor rural people to agricultural services. It was related to the second objective of the IFAD Strategic Framework 2011-2015 in enabling access for poor rural women and men to inputs and services such as certified/improved seeds to increase crop productivity and build resilience to drought.
2. **Project design.** The design was relevant overall and addressed the main constraints hindering the development of the seed industry and limited access by smallholder farmers to inputs, assets and services. The key approach proposed in the design centred around a partnership between private companies, farmers and the public sector that would ensure a sustainable increase in the production of certified (and improved) seeds and smallholder farmers’ access to better quality seeds. The components were appropriate, intervening at related levels: (i) at policy and institutional level to provide the seed industry with a regulatory framework and reinforce the capacity of the FSA to effectively carry its tasks related to the inspection and control of seeds; (ii) at the level of seed production in order to increase the supply of quality seeds; and (iii) at delivery level to support the access to and use of certified/improved seeds.
3. However, the initial private sector engagement strategy was not appropriate. The private company (ASSCO) was restricted to use ARC-registered seeds while it had own registered seeds. Furthermore, SDP guaranteeing the purchase of seeds from the producers was a disincentive for the establishment of a sustainable private sector-led seeds industry.[[11]](#footnote-11) Three of the four selected crops (cowpea, groundnut and sesame) had less commercial interest for PSCs.[[12]](#footnote-12) While the adjustments made around some of these aspects at Mid-term Review (MTR) (see paragraph 10) improved the relevance, the initial design shortfall resulted in an effective loss of two years of implementation.
4. **Relevance of targeting**: The project prioritized communities with previous experience in seed multiplication within other IFAD-funded projects and with suitable soils and rainfalls. Using this entry point was appropriate as it also enabled SDP to capitalize on community-level institutions supported (i.e. CDCs), extension teams and other investments. Inclusion of women and youth was to be facilitated by setting up of the quota (30 per cent for women and 20 per cent for youth), tracking of their participation, as well as training of extension teams (normally including women extension agents) and producer groups in gender mainstreaming.[[13]](#footnote-13) These measures, the partnership with microfinance institutions which normally focus on female clients as well as the focus on training youth for business-related opportunities (e.g. agro-dealers, traders) were overall appropriate.
5. The design report presented somewhat different targeting criteria for communities/households for seed growers on the one hand, and those who would acquire better quality seeds on the other. Given the limitation of smallholder farmers to produce seeds, the MTR recommended the inclusion of four medium size farmers with suitable land and skills for seed growing. In any case, it is noted that the predominant and relevant outreach mechanism was for grain producers and not seed growers.
6. The PCRV rates relevance*moderately satisfactory (4)* in line with the PCR rating.

**Effectiveness**

1. This section assesses the effectiveness of the project in respect to its objective and considering the delivery of its components. It should be noted a review of the PCR and other sources raises some questions on the reliability of data as discussed below. Indeed, most supervision missions highlighted weaknesses in project’s monitoring and evaluation (M&E).
2. **Outreach.** According to the PCR and additional data obtained, the total number of smallholder farmers reached by the project (direct beneficiaries) was 52,494 in 166 communities[[14]](#footnote-14) against the MTR target of 69,000. This is a substantially higher number compared to what was reported by the previous missions (i.e. 12,830 households in 119 communities in October 2017,[[15]](#footnote-15) 10,905 households in 74 communities in October 2016). The previous project staff explained that these figures reported by the supervision missions were not cumulative ones and confirmed that there is no double-counting in 52,494 households. While the data show that many of them were in “exposure communities”,[[16]](#footnote-16) it is understood that there was also informal marketing/distribution of certified seeds within and outside the villages of seed growers (those seeds that were not sold to PSCs or not sold as grains), resulting in an increasing number of farmers accessing better quality seeds as a result of project interventions. The outreach, whether direct or not, would have also been facilitated by improved availability and capacity of service providers (as discussed later). Lastly, it was estimated that approximately 60 per cent of SDP beneficiaries were also WSRMP beneficiaries.[[17]](#footnote-17)
3. **Component 1. Strengthening and development of the institutional and regulatory environment.** The SDP results have been modest with regard to creating a conducive policy and institutional environment for the seed industry. The necessary legal framework that was supposed to guide the development of the seed industry was not established. A working group from the National Seed Council drafted a new Plant Variety Protection Law[[18]](#footnote-18) and a Seed Law but their approval by the Minister of Justice was pending at the time of the project completion mission. Discussions during the CSPE mission with the private sector partners involved in SDP indicated that the law was still awaiting for the approval and some private companies were following this matter. The Central Seed Testing Laboratory of FSA was fully renovated and its staff members were trained to conduct quality control and seed certification but delays in the supply of equipment, hindered the full accreditation of the FSA by the International Seed Testing Association (ISTA).
4. **Component 2. Improvement of the seed production system.** The project supported the ARC to conduct a participatory research approach involving farmers, extension workers and researchers from the ARC. The PCR reports that around ten new varieties of seed[[19]](#footnote-19) were validated and released by the National Variety Release Committee, including one for hibiscus named *IFAD* variety as recognition of the IFAD support to the research programme of ARC.[[20]](#footnote-20) However, the linkages between the development of these varieties and the participatory research supported/promoted by SDP are not entirely clear. The October 2017 supervision mission reported that “the ARC’s work is still not linked to the SDP demo and PSC demo sites” but that “ARC has produced the participatory research manual.”
5. The partnerships between the ARC and the PSCs contributed to the production of certified seeds that represented 125 per cent of target (489 Mt compared to 400 Mt). The PCR reported that 17 SGGs (853 farmers – who were also GPG members) were established and trained and were linked to PSCs and to the FSA for the certification of seeds and 4,451 feddans were under seed production by the groups.[[21]](#footnote-21) However, based on the exchange with the previous project staff, it emerges that the number of SGGs (17) and growers (853) was the sum of those that produced seeds during the project life including those that were no longer active: it was reported that only 141 farmers in six SGGs continued up to completion.[[22]](#footnote-22) This is in fact consistent with earlier supervision mission reports, which indicated high drop-out rates for seed growers. Furthermore, the area under seed production (4,451 feddans) is understood to be a cumulative figure over years and not a snapshot at completion.
6. **Component 3. Support seed market development.** SDP introduced technical packages and promoted their adoption through field demonstrations, reaching 83 GPGs with 52,494 farmers (76 per cent of target set at MTR), according to the PCR. The PSCs adopted a model to market certified seeds whereby extension teams and marketing agents facilitated linkages between GPGs, mechanised service providers and financial institutions (Agricultural Bank of Sudan Microfinance Initiative [ABSUMI] and Bara'ah) for the provision of inputs. The project supported capacity building of 59 mechanized service providers, 98 spray service providers, 30 agro-dealers and 27 business development agents.
7. The project estimated that the use of certified/improved seeds increased from 5 per cent at pre-project to 45 per cent with the project. While it is not possible to validate these data, the increasing trend emerged from discussions during the CSPE mission and from other reports,[[23]](#footnote-23) including an assessment carried out by the project.[[24]](#footnote-24) The PCR also reported that a total of 453,900 feddans (compared to 483,000 feddans set at MTR) was cultivated with improved and certified seeds.[[25]](#footnote-25) As in the case of the area for seed production (paragraph 22), this figure appears to be a cumulative figure over the years and thus can be misleading since the target of 483,000 feddans was for the final year of the project. Access to insurance presented some limitations because the insurance company was reluctant to insure crops in risky rain fed. Borrowers of seasonal loans represented 21 per cent of the reached target (or 11,271).[[26]](#footnote-26)
8. The PCR observed that the business model adopted by the project was instrumental in changing the old modality where smallholders relied solely on low-yielding seeds retained from their previous seasonal harvest. Some seed growers were motivated to expand the business on a commercial basis beyond the project area (West Kordofan and Darfur states).
9. **Factors in project design and implementation that affected effectiveness.** The project lost almost half of the effective implementation period seeking to implement the initial designed engagement strategy with the private sector. The PCR notes that major improvements in the implementation were registered following the MTR including a sustainable partnership between relevant private sector actors and farmers. Discussions with the previous WSRMP/SDP PCU staff during the CSPE field mission[[27]](#footnote-27) revealed that positive factors enhancing the effectiveness included: (i) building on the experience of previous projects in the area; (ii) involvement of well capacitated communities with adequate organizational structures; and (iii) working with the already existing extension teams at the locality level. On the other hand, factors that affected the effectiveness of the project, including those specifically in the first years of implementation were: (a) general lack of interest of PSCs to work with small scale farmers in the traditional rain-fed sectors; (b) insufficient empowerment of SGGs and GPGs to act as partners in the seed value chain; (c) inadequate experience of the staff of the newly established ABSUMI units in managing high demanding season loans procedures and approaches to small-scale farmers; and (d) difficulties of accessibility to certain communities during the rainy season.
10. **Summary.** Despite the delays in the first years of implementation and the factors hindering its effectiveness, SDP succeeded in introducing a new business model adopted by the private and the public sector and by smallholder farmers. However, more time was needed to refine the models, approaches and packages. While uptake of improved seeds was reportedly high and increased availability of improved seeds would have benefited many farmers, the depth of outreach and outcomes were less than what the project could have achieved had it not been for the effective loss of half of the agricultural seasons during the project period. The outcomes with regard to institutional and regulatory environment also fell short of the expectations (i.e. legislations, FSA). The PCRV rates effectiveness *moderately satisfactory (4)*, one point below the PCR rating.

**Efficiency**

1. SDP became effective two months after its approval, which is positive since the average time in Sudan is eight months.[[28]](#footnote-28) However, the project experienced significant delays in the initial years and lost almost half of the implementation period, with implications on the benefits generated. The implementation accelerated in the post-MTR period, and at completion IFAD financing disbursement was 100 per cent.[[29]](#footnote-29)
2. Component 4 **project coordination and management cost** amounted to 35 per cent of the total project cost reported, significantly higher than the estimate at appraisal (19 per cent), which was already relatively high. The proportion would be lower than 35 per cent if the actual contributions by the beneficiaries and PSCs (which would mostly be for other components) were considered. In terms of the absolute amount, the component cost was slightly lower than the budget (US$3.18 million compared to US$3.46 million).
3. The PCR reported that **economic internal rate of return** calculated at completion (14.9 per cent) was lower than the estimate at appraisal (26 per cent) but also noted that assumptions made at design were rather unrealistic. However, it is noted that the design report had inconsistent figures in different parts of the report, including 13 per cent.[[30]](#footnote-30) A review conducted in the context of the CSPE noted a number of assumptions that might have led to both overestimation and underestimation. On the former (overestimation), the assumption on self-consumption of the sorghum (a main staple crop) and an overlap of beneficiaries between WSRMP and SDP activities were not fully taken into account in the economic and financial analysis. On the latter (underestimation), the number of grain producing beneficiaries and the area under cultivation used in the analysis (excel spreadsheet) appear to be low for some reason, also in view of the increased availability and uptake of improved seeds through informal channels. Furthermore, the benefits to service providers supported by the project (e.g. agro-dealers/traders, mechanized/spray service providers) are not considered in the analysis. Consequently, it appears that the economic return could be in the similar range of what was estimated in the PCR.
4. In light of the above, Efficiency is rated *moderately satisfactory (4),* one rating below the PCR rating

**Rural poverty impact**

1. This section reviews the data presented in the PCR, which were drawn from one yearly assessment conducted in 2017,[[31]](#footnote-31) the economic and financial analysis, and from the PCR field mission (interviewing a sample of 46 beneficiaries and using proxy indicators, namely for the *household incomes and assets* and *food security*, interviewing).[[32]](#footnote-32) A final household impact assessment was not carried out. Weaknesses in the M&E system were identified by supervision reports, indicating that availability of data relevant for evaluation of project impact was low.[[33]](#footnote-33) Hence the reliability of data can be questioned. It needs to be kept in mind that a majority of the communities/beneficiaries also benefited from WSRMP, which included support for crop production among a wide range of interventions, hence it is difficult to isolate the impact attributable to SDP.
2. **Household incomes and assets.** The PCR indicated an increase in the household asset ownership (comparing “before SDP” and “after SDP”[[34]](#footnote-34)) but the source and accuracy of the data can be questioned.[[35]](#footnote-35) The impact of the project on income was not assessed by the PCR. Instead, the PCR indicates “a large reduction of poverty perception from 51 per cent before project to 32 per cent with project”, but also here, the source of data (indicated as “yearly surveys”), the methodology used and their reliability are not clearly explained. Without comprehensive and reliable data, the extent of impact and outreach is not clear. It is also not possible to attribute the increase to SDP without a comparison group. Furthermore, as noted earlier, many of them were also WSRMP beneficiaries. The beneficiaries met during the CSPE mission noted the project contributed to household incomes and assets through improved agricultural production with access to inputs and services, but the shared view was that the effective project duration was too short.
3. **Food security and agricultural productivity**. The PCR indicated an improvement in the food security based on interviews with 15 rural women (35 per cent of the 46 beneficiaries interviewed) during the completion field visit and using two proxy indicators (availability of food items in household and a zero level of indebtedness at local shops). Given the negligible sample, it is not possible to quantify the magnitude of impact on this domain nor to confirm whether the claimed improvement can be attributed to SDP.
4. With regard to the agricultural productivity, an increase in yields was indicated in the PCR for the different crops (64 per cent for sorghum, 137 per cent for groundnuts and 23.4 for sesame). A 2016 supervision report observed the existence of little reliable documentation of yield increases due to lack of M&E data. It however confirmed an increase in the yield based on mission observations and discussions. This was possible thanks to the adoption of good agriculture practice (chisel ploughing), certified/improved seeds, more resilient varieties, as well as better access to other inputs/services (e.g. mechanized and spraying services). Discussions during the CSPE field visits also indicated an increased productivity for sorghum and sesame. While key quantitative data are not available nor reliable (e.g. number of farmers adopting certified/improved seeds, areas cultivated with certified/improved seeds, yields, informal marketing of improved seeds), it is plausible that the introduction and promotion of certified/improved seeds and other services in the area has had important impact on productivity.
5. **Human and social capital and empowerment.** SDP strengthened the skills and capacity of farmers on agricultural production and marketing through raising awareness on the adoption of certified seeds, on-farm demonstrations, and the promotion of agricultural packages, as well as the farming as a business training. While the project established 17 SGGs and 83 GPGs were established and strengthened, there was a high drop-out rate for SGGs/seed growers, and for those remaining, the PCR was silent on their performance and level of autonomy
6. The project enabled youth to take up employment opportunities as entrepreneurs. Youth represented 45 per cent of marketing agents involved in seed marketing. One community visited by the CSPE mission even commented that the project might have slowed down rural migration of young people who were encouraged by the marketing activities. Such view was also shared in the PCR stakeholder workshop, the group discussion noting project’s “contribution to community stabilization, especially the youth”.
7. **Institutions and policies.** The project worked with the FSA, the National Seed Council, ARC and extension teams who benefited from trainings and capacity building. According to the PCR, on the basis of the results and lessons learned from ARC-SDP partnership, the National Variety Release Committee decided to scale up the participatory research to all ARC stations in Sudan. With regard to policies, the drafted Plant Variety Protection Law[[36]](#footnote-36) and the Seed Law were not ratified by the Government (at completion time), but the discussion during the CSPE mission indicated that this was still being pursued. Moreover, the project also contributed to improved capacity of various private sector service providers (and linkage with private sector) to cater the needs of farmers, such as mechanized service providers, spray service providers, agro-dealers and business development agents.
8. **Summary.** The available information does not allow a full accurate assessment of this criterion. The most important impact of SDP was likely to be on increased crop productivity, which might have contributed to household incomes and assets. It is likely that it had a positive impact on human and social capital. The extent and magnitude of the changes cannot be reliably validated. Impact on policies in terms of new legislations was less successful at least during the project period, but the project had some positive impacts on institutions and services required by the farmers (e.g. FSA, ARC, private service providers). The effective loss of half of the project implementation period would have affected the project’s ability to generate sustainable impact. The PCRV rates rural poverty impact as *moderately satisfactory (4),* one point below the PCR rating.

**Sustainability of benefits**

1. The 2017 supervision report and the PCR observed that the ongoing IFAD-financed project “Integrated Agriculture and Marketing Development Project (IAMDP)” would continue the promotion of SDP activities and initiated private sector-smallholder business partnership in the project area.[[37]](#footnote-37) Most, if not all, members of the SDP PCU and multi-disciplinary teams have been retained to work with IAMDP.
2. Otherwise, SDP benefited from the engagement of the targeted communities, who, according to the PCR, appreciated the innovative private-public partnership model promoted by the project and together with the PSCs and service providers expressed their willingness to continue the business model without the project support. The 2017 supervision report highlighted the satisfaction of agro dealers from the partnerships that the project brokered with large-scale companies in Khartoum, and their plans for expanding their businesses. Discussions with the private sector partners during the CSPE mission reinforced these findings; interlocutors conveyed their appreciation with the partnership model promoted by the project. These emerging findings indicate a potential of sustainability of the SDP benefits and precisely the public-private partnership model.
3. The project strengthened institutional structures at the national and state levels through capacity buildings and trainings. However, the sustainability of the participatory research and the extension team support to SGGs and GPGswere questioned in the supervision reports and the stakeholder workshop due to the limited government resources.[[38]](#footnote-38) The PCR did not elaborate on this issue. This was a problem encountered also by other IFAD-financed projects in Sudan.
4. In conclusion, the business model introduced by SDP has a potential of sustainability given its appreciation by the various stakeholders, but there are some other elements for which the sustainability prospect was not clear at completion and would depend on the implementation of IAMDP. The PCRV rates sustainability *moderately satisfactory (4),* one rating below the PCR rating.

## Other performance criteria

**Innovation and scaling up**

1. **Innovation.** According to the PCR, the introduction of a business approach based on partnerships between the private sector, the farmers and the public sector was an innovation in the context. Other innovations can be highlighted by the PCRV: (i) setting up a network of business development agents who would link farmers with PSCs, financial institutions and mechanized service providers; and (ii) introduction of the participatory research approach involving farmers and the staff of ARC.
2. The PCRV rating for innovation is *satisfactory (5)*, one rating above the PCR rating.
3. **Scaling up.** The National Variety Release Committee decided to scale up the participatory research to all ARC stations in Sudan. Such approach was introduced by SDP for the first time in Sudan. According to the last supervision report, some of the ABSUMI units have started replicating the seasonal loans for improved technology packages without the project support. Discussion during the CSPE mission with private companies involved in SDP revealed that some of them scaled up the experience of partnership with farmers to another village.
4. In addition, although it does not fully comply with IFAD definition,[[39]](#footnote-39) scaling up is ongoing by another IFAD-financed project in Sudan – IAMDP - and mainly in terms of the public-private-partnership model.
5. The PCRV rating for scaling up is *satisfactory (5)*, in line with the PCR rating.

**Gender equality and women’s empowerment**

1. SDP ensured access of women to project services and benefits through setting a 30 per cent participation quota. Women represented 37 per cent of farmers in the SGGs, 32 per cent in GPGs. The project improved the access of women to services and assets such as access to advisory services for seed production (110 per cent of the estimated target), access to microfinance services (50 per cent of target), access to certified seeds (41 per cent of target).[[40]](#footnote-40) It is difficult to assess whether there are changes in women status at the community or household level due to the limited data available in the PCR. However, it is likely that their participation to the various activities improved their skills and their social status.
2. The PCRV rates GEWE *moderately satisfactory (4),* in line with the PCR rating.

**Environment and natural resources management**

1. The PCR noted that SDP did not have any negative impact on the environment. The project promoted environment friendly technical packages including chisel ploughing, soil and water harvesting techniques and supported farmers in their adoption through trainings and demonstrations. Around 88 demonstrations on soil and water conservation were conducted.
2. However, there was also a case where natural resources management was not given sufficient attention. One of the new variety of sorghum was suitable for gardud soils, which are grazing areas in North Kordofan, raising question on the expansion of farming on pasture land.[[41]](#footnote-41)
3. The PCRV rates environment and natural resources management *satisfactory (5)*, in line with the PCR rating.

**Adaptation to climate change**

1. SDP enhanced the resilience of farmers to climate change through the promotion of technical packages that improved water retention and adoption of drought resistant varieties (cash crop: sesame, groundnut; and staple crop: sorghum and cowpea). Promoted techniques included those for seed bed preparation and water harvesting (chisel and disc harrow) and crop planting using mechanical/pneumatic planter vs sowing (using traditional tools – *sallouka* and seed broadcasting). These serve as measures for improved natural resource management (soil and water conservation) as well as for climate change adaptation. The adoption rates of improved varieties and good agriculture practices by smallholders, as presented in the PCR, were 41 per cent for sorghum, 53 per cent for sesame, and 87 per cent for groundnuts.[[42]](#footnote-42)
2. The PCRV rates adaptation to climate change *satisfactory (5),* in line with the PCR rating.

## Overall project achievement

1. Despite delays in implementation caused by the inadequacy of the private sector engagement strategy, based on the adjustments made at MTR, the project succeeded in introducing a new farming business model based on public-private partnership. This model contributed to increased supply, availability and adoption of certified or improved seeds. Agricultural productivity increased thanks to the suitable seed varieties, improved seed quality and adoption of good agriculture practice (chisel ploughing). Improved availability and capacity of various types of private service providers and agro-dealers was also important project’s result. The innovative participatory research approach promoted by the project was to be scaled up by the National Seed Council to all ARC stations. However, a very short effective project implementation period made it difficult to generate greater impacts and to consolidate the project achievements (which was to be taken over by IAMDP). Given the weak M&E system, it is difficult to capture the effects of the project on income and household assets, food security and gender equality and women’s empowerment.
2. The PCRV rates the overall programme achievement as *moderately satisfactory (4),* one rating below the PCR rating*.*

## Performance of partners

1. **IFAD.** IFAD was proactively engaged and this is highlighted by the adjustment introduced following the MTR to address the weakness in the design and particularly the engagement strategy with the private sector. The IFAD in-country office provided regular support as noted by the PCR. In terms of knowledge management, it supported the participation of the SDP staff and partners in study tours to India (for seed production and microfinance), to Egypt, Ethiopia and Turkey for documentation and M&E training, as well as to a Learning Route on the gender methodology on the Gender Action Learning System in Uganda.[[43]](#footnote-43)
2. The PCRV rates the performance of IFAD *satisfactory (5),* in line with the PCR rating.
3. **Government.** The Federal Ministry of Agriculture and Forestry and the Federal Ministry of Finance and Economic Planning constantly participated in supervision and implementation support missions. The State Ministries of Agriculture in North and South Kordofan facilitated the project implementation at state level through the deployment of extension staff and the provision of offices and residential facilities to the outposted staff of the FSA.
4. However, the Government was less proactive in terms of ratifying the Seed Law and the new Plant Variety Protection Law. While it contributed 28.6 per cent of the planned amount, the PCR and supervision reports observed that it did not provide the project with the related data making it difficult to account its actual contribution and it is likely that the available data underestimated this contribution.
5. The PCU was mandated with a big load of tasks in the first years of the project including the implementation of WSRMP that was expected to end in 2014 but was extended for another two years. In addition, the PCU was responsible for the implementation of the grant "Scaling up the Agricultural Bank of Sudan Microfinance Initiative ABSUMI". Despite this overload, supervision missions commended the project management team, including the extension teams for actively adjusting the implementation of the project. On the other hand, the M&E system presented weaknesses that were repeatedly highlighted by supervision missions. The 2017 supervision mission report noted that necessary actions were taken during the last year of implementation,[[44]](#footnote-44) but this obviously did not solve the problem with the availability and accuracy of data.
6. The PCRV rating for the performance of the Government is *moderately satisfactory (4),* one point below the PCR rating.

# Assessment of PCR quality

**Scope**

1. The PCR covered all sections and annexes as per the guidelines for project completion review (2015). Some sections could have benefited from more elaboration (e.g., outcomes, sustainability). The PCRV rating for Scope is rated *moderately satisfactory (4).*

**Quality**

1. The report in general was more focused on the outputs and less on the analysis of outcomes. Many sections were descriptive rather than analytical. Quantitative evidence provided in support of statements made was quite limited and did not always seem reliable and solid enough to justify the ratings provided by PMD. Given the lack of sufficient data and in the absence of a final impact assessment, the PCR based some of its findings on mission observations and discussions with beneficiaries. The PCRV rates Quality *moderately unsatisfactory (3).*

**Lessons**

1. The PCR identified a number of relevant lessons, congruent with the results of the project. Lessons is rated *moderately satisfactory (4).*

**Candour**

1. The narrative of the PCR and the ratings are positive, yet the report is not evidence based and is missing data on major aspects. Impact on rural poverty was rated 5, yet, no sufficient evidence was provided in support of this rating. Candour is rated *moderately satisfactory (4).*
2. **Overall.** Overall PCR quality is rated as *moderately satisfactory (4).*

# Lessons learned

1. Creation of economies of scale. Private companies would invest in marketing inputs and services targeted for smallholders, when convinced that these farmers are a significant market.
2. Value chain approach is the most appropriate approach for sustainable development of the seeds industry. A flexible demand-driven comprehensive partnership between seed growers (smallholder farmers), PSCs and input and service suppliers proved more feasible and sustainable.

Definition and rating of the evaluation criteria used by IOE

| Criteria | Definition \* | Mandatory | To be rated |
| --- | --- | --- | --- |
| **Rural poverty impact** | Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions. | X | Yes |
|  | *Four impact domains* |  |  |
|  | * Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time. |  | No |
|  | * Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor’s individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process. |  | No |
|  | * Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition. |  | No |
|  | * Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor. |  | No |
| **Project performance** | Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits. | X | Yes |
| Relevance | The extent to which the objectives of a development intervention are consistent with beneficiaries’ requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted. | X | Yes |
| Effectiveness | The extent to which the development intervention’s objectives were achieved, or are expected to be achieved, taking into account their relative importance. | X | Yes |
| Efficiency  Sustainability of benefits | A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.  The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project’s life. | X  X | Yes  Yes |
| **Other performance criteria** |  |  |  |
| Gender equality and women’s empowerment | The extent to which IFAD interventions have contributed to better gender equality and women’s empowerment, for example, in terms of women’s access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women’s incomes, nutrition and livelihoods. | X | Yes |
| Innovation | The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction. | X | Yes |
| Scaling up | The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies. | X | Yes |
| Environment and natural resources management | The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide. | X | Yes |
| Adaptation to climate change | The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures | X | Yes |

| Criteria | Definition \* | Mandatory | To be rated |
| --- | --- | --- | --- |
| **Overall project achievement** | This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women’s empowerment, innovation and scaling up, as well as environment and natural resources management, and adaptation to climate change. | X | Yes |
| **Performance of partners** |  |  |  |
| * IFAD * Government | This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner’s expected role and responsibility in the project life cycle. | X  X | Yes  Yes |

\* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE’s evaluation criteria and key questions.

Rating comparisona

| *Criteria* | *Programme Management Department (PMD) rating* | *IOE Project Completion Report Validation (PCRV) rating* | *Net rating disconnect*  *(PCRV-PMD)* |
| --- | --- | --- | --- |
| **Rural poverty impact** | 5 | 4 | -1 |
|  | | | |
| **Project performance** |  |  |  |
| Relevance | 4 | 4 | 0 |
| Effectiveness | 5 | 4 | -1 |
| Efficiency | 5 | 4 | -1 |
| Sustainability of benefits | 5 | 4 | -1 |
| **Project performanceb** | **4.75** | **4** | **-0.75** |
| **Other performance criteria** |  |  |  |
| Gender equality and women's empowerment | 4 | 4 | 0 |
| Innovation | 4 | 5 | +1 |
| Scaling up | 5 | 5 | 0 |
| Environment and natural resources management | 5 | 5 | 0 |
| Adaptation to climate change | 5 | 5 | 0 |
| **Overall project achievementc** | **5** | **4** | **-1** |
|  |  |  |  |
| **Performance of partnersd** |  |  |  |
| IFAD | 5 | 5 | 0 |
| Government | 5 | 4 | -1 |
| **Average net disconnect** |  |  | **-0.33** |

a Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory;  4 = moderately satisfactory;  5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

b Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

c This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation and scaling up, environment and natural resources management, and adaptation to climate change.

d The rating for partners’ performance is not a component of the overall project achievement rating.

**Ratings of the project completion report quality**

|  |  |  |  |
| --- | --- | --- | --- |
|  | *PMD rating* | *IOE PCRV rating* | *Net disconnect* |
| Candour |  | 4 |  |
| Lessons |  | 4 |  |
| Quality (methods, data, participatory process) |  | 3 |  |
| Scope |  | 4 |  |
| Overall rating of the project completion report |  | 4 |  |

Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

Physical progress reported in PCR

| **Activity** | **Unit** | **Project Target** | **Cumulative achievement** | **Achievement %** |
| --- | --- | --- | --- | --- |
| **Component I: Institutional and Regulatory Environment Strengthening and Development** |  |  |  |  |
| **A. Federal Level** |  |  |  |  |
| **1. Infrastructure** |  |  |  |  |
| Refurbishment of Central Laboratory | No | 1 | 1 | 100 |
| **2. Technical Assistance** |  |  |  |  |
| Plant variety protection legal expert (IC) | Person/month | 2 | - |  |
| Plant breeding strategy developed (IC) | Person/month | 2 | - | - |
| Seed Policy Consultant (IC) | Person/month | 2 | 2 | 100 |
| Support Annual Forum (International Consultant) | Person/month | 1 | - | - |
| Plant breeding strategy developed (National Consultant) | Person/month | 3 | - | - |
| Seed Policy Development (National Consultant) | Person/month | 3 | 3 | 100 |
| Development of FSA lab manual (national Consultant) | Person/month | 4 | 1 | 25 |
| **3. Training** |  |  |  |  |
| Crop seed technology course for developing countries | Trainee | 2 | 2 | 100 |
| Protection of new plant varieties, breeders' rights | Trainee | 2 | - | - |
| Plant Variety Protection Legislation Consultative Workshop | Workshop | 1 | 1 | 100 |
| Plant Variety Protection training for breeders and NSA staff | Workshop | 1 | 1 | 100 |
| Seed Health Testing Course | Trainee | 2 | 1 | 50 |
| ISTA laboratory quality assurance | Trainee | 2 | 3 | 150 |
| Train SA staff - inspectors and seed analysts | Workshop | 6 | 3 | 50 |
| Training of Trainers on Seed Technology | Trainee | 2 | 2 | 100 |
| Computer training & specialized software | Course | 1 | 1 | 100 |
| Facilitate the convening of a national bi-annual forum | Forum | 12 | 2 | 17 |
| Plant Variety Protection Legislation Consultative Workshop | Workshop | 1 | 1 | 100 |
| Annual subscription – ISTA | Per annum | 6 | 4 | 67 |
| Participation in international Fora and ISTA workshops | Participant | 6 | 8 | 133 |
| National Forum | Forum | 5 | 3 | 60 |
| Training on seed diseases for 3 seed administration staff-Internal | Course | 1 | 1 | 100 |
| Training on seed laboratory test for FSA and SSA in Egypt-External | Course | 1 | 1 | 100 |
| Training on fields inspection in Egypt for FSA and SSA-External | course | 1 | 1 | 100 |
| Workshop on seed sampling -External | Workshop | 1 | 1 | 100 |
| Workshop on seed health -External | Workshop | 1 | 1 | 100 |
| Workshop on variety verification -External | Workshop | 1 | 1 | 100 |
| Workshop on seed vigour -External | Workshop | 1 | 1 | 100 |
| Training on variety verification -External | Course | 1 | 1 | 100 |
| Training on Field inspection -ICARDA-External | Course | 1 | 1 | 100 |
| Training on Laboratory tests-ICARDA-External | course | 1 | 1 | 100 |
| Thematic seminars, and workshops | per annum | 24 | 14 | 58 |
| **B. State Level (North and South Kordofan)** |  |  |  |  |
| **1. Infrastructure** |  |  |  |  |
| Rehabilitate offices and staff accommodation | No. | 3 | 3 | 100 |
| **2. Training** |  |  |  |  |
| Seed health testing | course | 3 | 3 | 100 |
| Tetrazolium test | course | 2 | 1 | 50 |
| Seed pathology | Course | 3 | 3 | 100 |
| Seed processing | Course | 2 | 2 | 100 |
| Seed Technology | Course | 3 | 3 | 100 |
| Traditional seed testing | Course | 2 | 2 | 100 |
| Training of NSA staff out posted to state level - laboratory staff | Course | 2 | 2 | 100 |
| Training of State Seed Unit staff – Internal | Course | 2 | 3 | 150 |
| Facilitate the convening of a state forum | Forum | 6 | 1 | 17 |
| Training in Laboratory Test-External | Course | 1 | 1 | 100 |
| Training in field inspection-External | Course | 1 | 1 | 100 |
| Component one average achievement |  |  |  |  |
| **Component II: Improvement of the Seed Production System** |  |  |  |  |
| **A. State Level (North and South Kordofan)** |  |  |  |  |
| **1. Infrastructure** |  |  |  |  |
| Renovate breeders' seed storage at ARC | No. | 2 | 2 | 100 |
| **2. Training & Capacity Building** |  |  |  |  |
| **2.1 Capacity building of ARC staff** |  |  |  |  |
| Crop Breeding - External (ARC) | Course | 1 | 1 | 100 |
| Water harvesting techniques - External (ARC) | Course | 1 | 1 | 100 |
| Participatory research - External (ARC) | Course | 1 | 3 | 300 |
| Participatory research committees formed | No. | 16 | 40 | 250 |
| Participatory research on-farms implemented | No. | 60 | 104 | 173 |
| **2.2 Capacity building of Extension Teams staff** |  |  |  |  |
| Extension Staff - External training | Trainee | 45 | 45 | 100 |
| Gender mainstreaming in agriculture | Course | 2 | 2 | 100 |
| Seed production and marketing practices – Internal | Course | 2 | 2 | 100 |
| Best practices in M&E and impact assessment - Internal | Course | 2 | 2 | 100 |
| Farming as a business – Internal | Course | 2 | 2 | 100 |
| **2.3 Capacity building of farmers groups** |  |  |  |  |
| Farming as a business – Internal | course | 4 | 4 | 100 |
| Training of village-based extension staff – Internal | course | 6 | 6 | 100 |
| Information campaigns, awareness raising, media campaign, Gender sensitization | per annum | 12 | 6 | 50 |
| National Exchange visits on successful experiences | tour | 3 | 2 | 67 |
| Training Women farmers in decision making and leadership | workshop | 2 | 2 | 100 |
| Workshop for leaders of seed producer groups | Workshop | 2 | 2 | 100 |
| Number of SGGs formed | No. | 17 | 17 | 100 |
| Farmers accessing advisory services for seed production (Men) | No. | 900 | 862 | 97 |
| Farmers accessing advisory services for seed production (Women) | No. | 380 | 369 | 110 |
| Quantity of certified seeds produced by SGGs | MT | 2 500 | 412 | 16 |
| No. of farmers received insurance services | No. | 1 280 | 415 | 32 |
| Total funds disbursed by IFAD for crop insurance | SDG '000 | 529 | 62 | 12 |
| Total funds disbursed by the Government of Sudan for crop insurance | SDG '000 | 694 | 62 | 9 |
| Total funds disbursed by Farmers for crop insurance | SDG '000 | 165 | - | - |
| **C. Project Facilitation** |  |  |  |  |
| **1. Technical Assistance** |  |  |  |  |
| Participatory Research expert (IC) | Person month | 2 | 2 | 100 |
| Training need assessment for extension (NC) | Person/month | 5 | 5 | 100 |
| Quantity of registered seed produced by ARC | MT | 134 | 9 | 6 |
| **Component III: Seed Market Development Support** |  |  |  |  |
| **A. Project Facilitation** |  |  |  |  |
| **1. Technical Assistance** |  |  |  |  |
| Crop Value chain study and PPP (IC) | lump sum | 2 | 2 | 100 |
| Rural Finance Expert (IC) | lump sum | 2 | 2 | 100 |
| Crop Value chain study (NCT) | lump sum | 1 | 1 | 100 |
| PPP Consultant (NC) | Person/month | 7 | 7 | 100 |
| Seed information system/database established (PCU level) | lump sum | 1 | - | - |
| Maintenance and updating of MIS (ABSUMI) | lump sum | 1 | - | - |
| **2. Training** |  | - | - |  |
| Seed marketing network training | Course | 2 | - | - |
| **B. State Level (NK and SK)** |  | - | - |  |
| **1. Training & capacity building** |  | - | - |  |
| Training of grain producers in agricultural planning by extension teams | campaigns | 6 | 6 | 100 |
| Harvest day | number | 8 | 8 | 100 |
| Training of extension officers in Microfinance – Internal | course | 4 | 4 | 100 |
| Formation of Grain Producers Groups (GPGs) | No. | 83 | 83 | 100 |
| farmers in GPGs provided with certified seeds (men) | No. | 14 000 | 8 503 | 60 |
| Farmers in GPGs provided with certified seeds (women) | No. | 6 000 | 2 487 | 41 |
| Area cultivated with certified/improved seeds | 000' fed | 483 000 | 453 000 | 94 |
| Farmers in GPGs accessing Micro-finance services (men) | No. | 14 000 | 6 240 | 45 |
| Farmers in GPGs accessing Micro-finance services (women) | No. | 6 000 | 3 000 | 50 |
| Training of contact farmers | Trainee | 400 | 456 | 114 |
| Field demonstration plots | No. | 90 | 90 | 100 |
| Field days | No. | 1 200 | 317 | 26 |
| Formation and development of savings and credit groups | group | 600 | 395 | 66 |
| Formation and development of Community investment committee | association | 200 | 5 | 3 |
| Internal exchange visits (VSCGs) | Visit | 6 | - | - |
| Documentation of success stories and best practice (VSCGs) | practice | 6 | 6 | 100 |
| Training of community trainers | person | 600 | - | 0.33 |
| Training of farmers on farming as a business | Person | - | 1 413 |  |
| Training on agric. Machinery operation | Person | - | 99 |  |
| Training of BDA | Person | - | - |  |
| Training of agents on SSP | Person | - | 90 |  |
| Assessment for selection of full intervention communities | Assessment | - | 2 |  |
| Assessment of VSCG | assessment | 3 | 2 | 67 |
| Exposure visit to SCG experience outside Sudan (ABSUMI & Bara'ah) | person | 16 | 24 | 150 |
| **Component IV: Project Coordination and Management** |  |  |  |  |
| **1. Technical Assistance** |  |  |  |  |
| Develop KM Strategy | Person/month | 2 | - |  |
| Update Project M&E System Design | Person/month | 2 | - |  |
| Development of computerized accounting system | Person/month | 15 | 10 | 67 |
| Technical and thematic studies | Person/month | 10 | 9 | 90 |
| **2. Contracted services** |  | - | - |  |
| Baseline study | Survey | 1 | 1 | 100 |
| RIMS Baseline Survey | Study | 1 | 1 | 100 |
| Mid-term Review | Mission | 1 | 1 | 100 |
| Annual Audit | Annual | 6 | 4 | 67 |
| **3. Training** |  | - | - |  |
| Training for PCU & FP staff (External) | Person | 15 | 11 | 73 |
| Training for PCU staff (Internal) | Person | 10 | 10 | 100 |
| Annual Project Assessment | Per annum | 6 | 5 | 83 |
| Conduct Annual Review and Planning Workshops | Per annum | 6 | 3 | 50 |

Source. PCR, physical progress table, appendix 8.

Abbreviations and Acronyms

ABSUMI Agricultural Bank of Sudan Microfinance Initiative

ARC Agriculture research centre

ASSCO Arab Sudanese Seeds Company

CDC Community development committee

CSPE Country strategy and programme evaluation

FSA Federal seed administration

GPG Grain producers group

IAMDP Integrated Agriculture and Marketing Development Project

ISTA International Seed Testing Association

M&E Monitoring and Evaluation

MTR Mid-term review

PCR Project Completion Report

PCRV Project Completion Report Validation

PCU Project coordination unit

PSC Private Seed Company

SDP Seed Development Project

SGG Seed grower group

WSRMP Western Sudan Resources Management Programme

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1. Where different figures are available in different sources (i.e. PCR, IFAD database), higher amount used with the assumption that these are more updated figures. See also table 1. [↑](#footnote-ref-1)
2. Um Rawaba and Rashad were added following the MTR in 2014. [↑](#footnote-ref-2)
3. The mid-term review (MTR) pointed out that for some crops (e.g. groundnuts, sesame), seed growers would save seeds with less need for registered seeds and still maintain good quality. Accordingly, the adjusted project objective statement (including “improved seeds”) is used in the project documents after the MTR. [↑](#footnote-ref-3)
4. SDP design report. [↑](#footnote-ref-4)
5. Sesame, groundnuts, sorghum and millet. [↑](#footnote-ref-5)
6. The Government paid for operating costs for the activities implemented by FSA and ARC but did not provide the information (PCR paragraph 84). [↑](#footnote-ref-6)
7. President’s report and SDP PCR. [↑](#footnote-ref-7)
8. Implemented between 2001 and 2012. [↑](#footnote-ref-8)
9. According to the PCR, this was because: (i) it was challenging to work with a large number of smallholder farmers unaware of the importance of improved seeds; and (ii) ASSCO was restricted to use ARC-registered seeds while it had own registered seeds. Furthermore, the PSC saw SDP guaranteeing the purchase of seeds from the producers as a disincentive for the establishment of a sustainable private sector-led seeds industry (SDP PCR). [↑](#footnote-ref-9)
10. Seed classes, in order from the highest class, are: breeder seed; foundation seed; registered seed; certified seed; and improved/good quality seed (community-based seed production) (SDP design report). [↑](#footnote-ref-10)
11. SDP PCR. [↑](#footnote-ref-11)
12. The renovation of the seed pool for sesame and groundnut is necessary only every two years because of their self-pollination capacity, which makes it less interesting for PSC. Farmers may retain harvested grain to use as seed for many seasons without noticeable loss in desired characteristics. On-going demand for groundnut, sesame, and cowpea seed is therefore limited and unpredictable. [↑](#footnote-ref-12)
13. SDP design report. [↑](#footnote-ref-13)
14. The PCR reported 136 communities, but according to the previous project staff, this should have been 166. Out of 166 communities, 65 were classified as exposure communities, 52 full intervention/consolidation, 49 graduated. [↑](#footnote-ref-14)
15. 78 exposure communities with 9,874 households, 29 full intervention communities with 820 households and in 12 graduated communities with 2,163 households. (October 2017 supervision mission report). [↑](#footnote-ref-15)
16. Exposure communities are “communities targeted by the project and some non-target communities but with proximity to full intervention communities/villages. These communities have not been able to apply any agricultural technologies by the project on their land/fields, nor have they been able to observe the experience of the communities targeted by project interventions in previous years”. [↑](#footnote-ref-16)
17. Information from previous WSRMP/SDP project coordinator. [↑](#footnote-ref-17)
18. A new Plant Variety Protection Law would enable Sudan to become a member of the International Union for the Protection of New Varieties of Plants. [↑](#footnote-ref-18)
19. Varieties of Sorghum, cowpeas, groundnut, pigeon pea, cowpea, hibiscus, sesame. [↑](#footnote-ref-19)
20. PCR, p. 7. [↑](#footnote-ref-20)
21. PCR, p. 8. [↑](#footnote-ref-21)
22. Information provided by previous WSRMP/SDP coordinator. [↑](#footnote-ref-22)
23. Supervision report (2016) indicated an increase in the demand for seed: for 2017 in North Kordofan RANS company increased their contract for certified groundnut production from 200 to 380 feddans and ASSCO increased from 50 to 103 feddans. [↑](#footnote-ref-23)
24. The assessment covered 31 communities with 647 households. It covered domains related to SPG and GPG: rate and degree of adoption of technologies; level of effective demand for main crops and compare it with previous season, in addition to data for assessing the efficiency and effectiveness of GPG and SPG. [↑](#footnote-ref-24)
25. PCR, p 13. [↑](#footnote-ref-25)
26. The last supervision report commented that SDP was unsuccessful in forming savings and credit groups with internal capital in the SDP villages and "has still" not developed a strong foothold in these villages with other loan products. [↑](#footnote-ref-26)
27. Presentation by the PCU during the CSPE preparatory mission, March 2019. [↑](#footnote-ref-27)
28. For projects approved between 1999 and 2017. [↑](#footnote-ref-28)
29. In SDR. [↑](#footnote-ref-29)
30. Inconsistencies are noted among estimated economic internal rate of return at appraisal as it follows: design report paragraph 19 in page vii - 25 per cent; design report paragraph 117 as well as annex 10 - 13 per cent; and economic and financial analysis excel spreadsheet – 24 per cent. The PCR reports economic internal rate of return was estimated as 26 per cent at appraisal. [↑](#footnote-ref-30)
31. The 2017 assessment covered 31 communities with 647 households. It did not cover impact domain but reported on the rate and degree of adoption of the technologies, effective demand for 2017, etc. [↑](#footnote-ref-31)
32. The mission interviewed a sample of 46 beneficiaries and used proxy indicators, namely for the *household incomes and assets* and *food security.* [↑](#footnote-ref-32)
33. Supervision reports March 2014, Jan and Oct 2016. [↑](#footnote-ref-33)
34. In the table indicated as “with SDP” compared to “before SDP”. [↑](#footnote-ref-34)
35. As indicated above, “yearly assessments” covered indicators related to crop production and did not include parameters such as household incomes or assets. It is not clear how the reported data on household assets were generated. [↑](#footnote-ref-35)
36. A new Plant Variety Protection would enable Sudan to become a member of the International union for the protection of new plant varieties. [↑](#footnote-ref-36)
37. The project has started in 2018 and covers Sinner, North, South, and West Kordofan. Its objective includes improving market linkage for smallholder farmers and facilitating a private sector-led supply chain for services and inputs. [↑](#footnote-ref-37)
38. Supervision report, January 2016 and stakeholder workshop held in September 2018. [↑](#footnote-ref-38)
39. IFAD’s operational framework for scaling up results, December 2015. [↑](#footnote-ref-39)
40. PCR. [↑](#footnote-ref-40)
41. Stakeholders workshop, PCR. [↑](#footnote-ref-41)
42. PCR. p. 15. [↑](#footnote-ref-42)
43. Supervision report, January 2016. [↑](#footnote-ref-43)
44. Supervision report 2017. [↑](#footnote-ref-44)