

Evaluation of FFS and FMS Approaches in Sudan



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ADRA Denmark August 2022

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Photo on cover of Christian Sørensen: Manahil Ibrahim, Nosiba Almahi Musa and Amira Ahmed Ali (MoA) on the way to an FMS group meeting as part of FFS and FMS evaluation in Bab Noosa Village Al Jebelein

ACRONYMS

| | |
|--------|--|
| ADRA | Adventist Development and Relief Agency |
| ARC | Agricultural Research Centre |
| CAP | Community Action Plan |
| CBTS | Community Based Total Sanitation |
| DAC | Development Assistance Committee |
| EU | European Union |
| FAO | Food and Agriculture Organisation |
| FCU | FMS Coordination Unit |
| FGD | Focus Group Discussion |
| FFS | Farmer Field School |
| FMS | Farmer Market School |
| FPDO | Fiends of Peace and Development Organization |
| IDP | Internally Displaced Person |
| MOA | Ministry of Agriculture |
| MOPER | Ministry of Production & Economic Resources (former MoA) |
| MOU | Memorandum of Understanding |
| RIHA | Resilience in The Horn of Africa |
| SAHEVA | Sanitation Health Education and Water for All |
| SCEED | Strengthening Community Engagement and empowerment in Darfur |
| TMP | Tamkeen Al-Muzarein Project |
| TOF | Training of Facilitators |
| TTEA | Technology Transfer and Extension Administration |

Executive Summary

The main objective of this evaluation is to assess how effective the FFS and FMS approaches in ADRA projects in Sudan have been in relation to improving income and livelihoods of the target group. Focus is put on the impact, the coherence, the relevance, the effectiveness and efficiency as well as sustainability of the two approaches.

This evaluation of FFS and FMS experiences in Sudan came at the time, when the TMP¹ in White Nile had ended and successfully established 159 FFS groups and 213 FMS groups in four-years from 2017-21. The SCEED²-1 project in Darfur had also just completed its 2-year tenure 2020-21 after having replaced the old West Darfur project, SAHEWA³, which started 2016. The two Darfur projects together trained 62 FFS groups and 41 FMS groups. TMP and SAHEWA/SCEED has a good deal in common, but there are also big differences. The resources for TMP were huge compared to SAHEWA-SCEED⁴. The two States are also very different. White Nile is a 'breadbasket state' with immense irrigation infrastructure from the river, while West Darfur is semi-arid and affected by serious conflicts in the beginning of 2000s, which have erupted anew.

FFS and FMS were taken up with enthusiasm by many farmers, who had not been trained in improved agronomy and market access before. Many of them participated in both FFS and FMS groups. Around 75% of their members were women. In West Darfur an innovative type of training was at one time developed with elements of both agronomy and of market knowledge. The farmers wanted to learn all of it. They were trained by project staff and by Village Agents combined with agricultural experts to some of the technical subjects.

A more conventional process took place in White Nile. Here the capacity was built of MoA / MOPER⁵ Staff to implement FFS based on best available experience and knowledge, which came from international and Sudanese FFS master trainers. Eventually FFS and FMS were implemented in both States. Most of their members were the same farmers. The impact on farmers of this dual membership was very strong. Productivity and new market strategies developed, and general livelihood conditions improved. Improved intra-household gender relations recorded the steepest improvement of all impact areas tested during this evaluation.

The methodology of this evaluation includes secondary data – primarily project documents and project evaluations reports – combined with participatory field research. Two instruments were used - a livelihood self-assessment tool and a self-monitoring template used by individual farmers. In addition, a number of individual interviews were undertaken of different participants in the FFS and FMS processes. These include four in-depth interviews of Village Agents.

An important finding was that FFS and FMS can be combined easily, and that the impact on the farmers, who are both FFS and FMS members⁶, primarily show as general livelihood improvements, confidence and improvements in gender relations, while more practical impact of improved production and income growth scored a bit lower. This corresponds to the 2018 FMS evaluation in Zimbabwe⁷ and Malawi, which identified attitudinal changes happening first, while practical production and market related activities develop slower, as agricultural change takes place during more than one agricultural season.

¹ Tamazein Al-Muzarein Project (TMP)

² Strengthening Community Engagements and Empowerment in Darfur (SCEED)

³ Sanitation and Health Education and Water for All (SAHEWA)

⁴ The TMP budget was EUR 3,75 million, while the SCEED -1 had a budget of DKK 4 million

⁵ The term MOA or MoA means Ministry of Agriculture, but a change of name took place in 2020 to Ministry of Production and Economic Resources (MOPER), the three terms MOA, MoA and MOPER are used interchangeably in this report.

⁶ To be totally correct: literally all FFS members were also FMS members, while not all – but most - FMS members were also FFS members

⁷ Esbern Friis-Hansen (2018): Evaluation of ADRA Zimbabwe's support for FMS 2016-18

A second important finding is the importance of the Village Agent, who is a farmer, and who has taken on various roles as a trainer and community organiser. The volatile situation in Sudan for the last 2-3 years has required an emphasis on security, which means that project and Government staff would not always be able to reach the farmers especially in Darfur. But the Village Agents would continue training and other activities even during such times.

A third lesson learned in Sudan was how FMS can be upscaled in a very short time. This happened in White Nile, where cluster training of 178 Village Agents was used to establish 211 FMS groups within 1½ years. The same method could not directly be used for FFS groups, as the FFS process covers a whole agricultural season, while the FMS training consists of half-day weekly meetings for 14 weeks.

Some challenges were also observed, which need attention both at Sudan level and generally.

The FFS balances between technology adoption and farmer ownership of the learning process, when implemented by the MoA / MOPER in Sudan. The FFS approach lives with this balance, but there are cases, when technology adoption becomes the primary motive for the Government, while farmers' participatory group learning is partly neglected. Not only Sudan has this challenge, but where an NGO is involved – as in the case of ADRA - it is important that farmer ownership of the process is retained.

Projects must always have a phase-out plan that involves institutionalization of some kind of important project activities are prepared for sustainability. The TMP in White Nile did a tremendous effort to reach quantitatively project targets in its last two years. But at project-end the Ministry of Agriculture had a staff 83 FFS trainers, which it would not be able to sustain without project inputs. Likewise, it had trained 178 Village Agents as FMS facilitators which were left to themselves.

In the two project evaluation reports, there is a tendency to see government institutions as future homes of most project activities. Some activities belong more naturally to civil society than to Government. Lessons could be learned by the example of VSLAs, which function outside Government and are also not controlled by the formal banking system. VSLA is a typical civil society institution and has thrived and grown as such.

This research comes up with twelve recommendations most of which require action by ADRA Sudan. But there are also some for attention by ADRA Denmark and the FMS Coordination Unit. Three important recommendations are mentioned here.

First, the ease with which farmers combine FFS and FMS membership should be acknowledged, and a new model tested: a one-year pilot project of FFS-FMS combined. FFS activities will take place during the agricultural season, while the lean months are used for FMS training. The two approaches are complementary and mutually reinforce each other. This should be tested as a pilot project, where both FFS and FMS are implemented by the same organization/project.

Secondly, in Darfur there has been a strong village-based linking of the activities: FFS, FMS, VSLA and CAP⁸. Where all these approaches are found in a village, it is suggested that such villages are urged to form village-based community development organization. This will strengthen civil society and engage local Village Agents.

Thirdly, while farmers after FMS training clearly are able to approach the nearest markets and improve their market links, they have difficulties in reaching more distant and diversified markets. To facilitate links to these markets new thinking is required, which is recommended for the FMS Coordination Unit e.g. in cooperation with ADRA Sudan and maybe ADRA Tanzania and ADRA Uganda, which have similar problems.

⁸ CAP means Community Action Planning, whereby a community organize the planning and construction of community structures such as schools, wells, clinics. The community raise most of the resources in collaboration with ADRA.

Methodology

The methodology of this evaluation is based on (1) secondary data – primarily project documents and project evaluations reports – combined with (2) participatory field research.

Evaluation Reports

This research took place from 6th to 30th March 2022 by Christian Sørensen, ex-ADRA Denmark and Senior consultant in FCU together with Jonathan Zimuto from ADRA Zambia and Program Coordinator in FCU.

after the two involved projects TMP in White Nile and SCEED-1 in Darfur had ended, and external end-evaluations had been submitted. Both of these were dealing with the whole range of activities carried out by the two projects.

The TMP evaluation report⁹ used a combination *'of relevant project documents, focus group discussions with beneficiaries (FGDs), key informant interviews and discussions with ADRA management, project partners and stakeholders*. The SCEED draft survey report¹⁰ also did interviews and FGDs but based on a questionnaire for group discussion and interviews of key informants as well as mini surveys. The sample included four selected villages (actually two of the same as this evaluation: Dorti and Bejbej), a total of 52 individual yes/no questionnaires and 6 focus group discussions were administered.

Project Reports

The SCEED annual report (2020-21) and the TMP Final Report were very useful. So were various minor reports, which the evaluation was given by project staff, especially in Darfur, where the ADRA project staff of SCEED are still employed, as opposed to the project staff of TMP, who had been terminated by the end of the project in September 2021.

Field Work with Participatory Approaches

This evaluation is not project focused, but has its focus on the two approaches – Farmer Field Schools and Farmer Market Schools - their relevance for smallholder farmers etc. Participatory approaches were used to give a picture, which as exact as possible reveal the farmers' opinions and feelings about their relevance, etc. as possible. The field work in White Nile was carried out between 7th to 28th March 2022. To assist in the actual fieldwork a team of 9 White Nile based persons were hired. All were staff of MOPER, three had been seconded to TMP up to end-2020. They were thus well acquainted with the project, the beneficiaries and their villages. The field team in Darfur consisted of four project staff.

This team in White Nile translated all the research tools into Arabic. They also translated interviews from Arabic to English. Of 5 field days three went to Al Jebelein locality and two to Al Salaam locality. 16 of the initial 52 TMP villages were visited. Selection criteria was mainly proximity to the main roads, as almost half of the villages would not be accessible because of poor roads and far distance from Kosti. The team split into teams of two, who would visit up to three villages per day. The field days started early morning with the actual field visits and with the afternoon spent in the ADRA office in Kosti, where collected data was translated and put into respective formats.

In West Darfur there were only one real field day to visit three villages: Dorti, Bejbej and Agoura¹¹, while two days were used to long discussions with project staff, visit to Geneina's main market and for detailed interviews of Village Agents in the ADRA office.

A total of 350 persons participated in the exercises in the two States, which included

⁹ Tamkeen Al-Muzarein Project (TMP) End of project Evaluation Report, July 01-2021

¹⁰ Endline survey report for the project of: Strengthening Community Engagement and empowerment in Darfur (SCEED), February 2022

¹¹ The security situation in Darfur was quite critical because of recent clashes and many deaths, so the field trips were only made to two villages near Geneina, which took place with armed escort

- a. The Livelihood Self Perception tool¹² with the possibility to select six different statements about 15 specific livelihood subjects
- b. The self-monitoring tool on agricultural production and productivity – based on individual farm economics
- c. Short interviews based on interview checklist of Village Agents, FFS members, FMS Facilitators, FFS Facilitators
- d. In-depth Individual interviews (only in West Darfur)

All interviews were done in Arabic by a group of nine members of a Sudanese field team¹³ in White Nile and by ADRA staff in Darfur. All written formats used were also translated into Arabic. The reason for predominantly using participatory field methods was to get as close as possible to the mindset, feelings and aspirations – as well as practical actions - of the FFS and FMS smallholder members.

It was our experience that FMS groups tend to be more permanent than FFS groups. When we requested to meet FFS groups in White Nile, we were told that it would be difficult to call the group members together at this time of the year (dry winter season). Even with very short deadlines it was possible to gather FMS groups for a meeting. They would already have come to a common meeting place in the village, when the vehicle with the research team arrived. In eight days of field work, we succeeded to meet 16 FMS groups whose members were predominantly women.

Context and History of FFS and FMS in Sudan

The context in Sudan

Sudan is one of Africa's medium-to-big countries with 46 million inhabitants. It is also one of the most diverse countries in terms environment. It contains deserts, rain forest, mountains, and Africa's biggest river. There are huge differences in livelihood opportunities throughout Sudan. The majority are smallholder farmers, agro-pastoralists and pastoralists. The capital Khartoum of 5-7 million people harbours extreme social differences from multi-rich, who own house looking like palaces, to a sizable middle-class and then a big majority of urban poor living in shacks, and even destitute who sleep on the streets

Politically, Sudan has been through many changes from democratic rule to socialist and Islamic fundamentalism and all along with a range of internal conflicts, the biggest of which resulted in the secession of South Sudan in 2011. In 2020-21 a revolution removed the long-ruling president Omar al-Bashir. But the coalition government, which took over was toppled by a military coup in 2021. The economy has been very critical for many years with growing – to galloping – inflation, which has hit the whole population hard.

The subjects for this evaluation were activities in two States in Sudan – West Darfur, bordering Chad in the middle of Africa and White Nile, which borders Ethiopia and South Sudan.

Historically White Nile was known as part of *'the grain basket of Sudan'*. Its extensive structures for irrigation along the Nile produced agricultural crops as well as crops for export. Darfur, on the other hand, has been associated with conflict between various tribes over land and water resources. The conflict in Darfur, which was world news in the beginning of the 2000' has never been totally resolved. In the recent two years the conflict has grown and resulted in new displacement. White Nile today is not at its historical label promises. In recent years many of the irrigation activities have stopped functioning, and in-migrating of smallholder farmers does not mean that these farmers have been able to acquire irrigated land – even land at all.

ADRA experienced that the smallholder farmers in both of the two States felt neglected. The Darfur conflict was responded to by an influx of humanitarian aid, especially for the 2 million displaced persons living in IDP camps, e.g including around the capital of Geneina the capital of West Darfur.

¹² The full formats in English and Arabic are found in the Annexes

¹³ Their names and contact addresses are enclosed in Annex 1

From 2016 ADRA changed its focus of its interventions towards more lasting livelihood solutions for returned farmers and IDPs living in villages with only limited access to land. The Government was weak, and when farmers in a village 30 km from the capital were asked, when they last were visited by an extension officer from MoA, the answer was: 'Never!'

White Nile was also – after the independence of South Sudan in 2011 characterized by dominance of humanitarian needs by first returning Sudanese farmers from the North of South Sudan, and then later – when civil war broke out in South Sudan in 2015 by big numbers of South Sudanese refugees, who were kept in refugee camps in the two localities – Al Jebelein and Al Salaam. ADRA suggested to work in the space between humanitarian and developmental intervention in a joint project with EU and ADRA Denmark funds for smallholder farmers in these two locations.

White Nile has a better infrastructure to reach more lucrative markets than Darfur. Kosti and Rabak have the local markets, farmers focus on, because they are nearby. But there are highways to bigger towns, including Khartoum, which is 300 km away from the FMS villages in Al Saalam and Al Jebelein. The twin-towns of Kosti and Rabak in White Nile have several markets and also some specialized shops for selling agricultural/horticultural projects. In addition, there are highways passing through loaded with goods, which are taken to the huge markets in Khartoum and to El Obeid. White Nile has a huge agricultural potential with its huge irrigation schemes, many of which have deteriorated after their privatization.

For the West Darfur farmers, the main market is in Geneina. It is a huge town with a million inhabitants and is still increasing. Much of its increase is a result of IDPs from camps around Geneina being urbanized. This is the main reason why Geneina has no middle class, no big villas, no supermarkets or specialized grocery stores. Everybody use the big open market for selling and buying. Lucrative markets can only be reached by air. Lorry transport to Khartoum takes up to three days.

History/background of FFS and FMS

The history of FFS and FMS in Sudan is central to this evaluation - especially in the two project areas of SAHEWA/SCEED in West Darfur and TMP in White Nile.

Farmer Field Schools

The first Farmer Field Schools started in Indonesia 1989 as a new agricultural training approach based on farmers' own experiences strongly supported by FAO. Sudan was the first country in Africa to adopt FFS in 2006. During 2016-17 SAHEWA had started different forms of agricultural training as a response to big farmer demand. Initially project staff invited experts from the Agricultural Research Corporation to cover specific topics. FFS experience was introduced in SAHEWA, when a project team in 2017 travelled to visit an FFS project in North Kordofan.

In 2018 ADRA approached the MoA to discuss collaboration on FFS. 15 Village Agents – 3 women and 12 men – were present¹⁴. The MoA representative asked the Village Agents, if their FFS groups were registered. They were not. They were just local community groups. The Village Agents were told about the procedure of registration, which also included formal registration and approval of village land. This was not agreeable by them. And they did not proceed to collaborate with the Ministry at that time. But later, especially in the SCEED project, which succeeded SAHEWA in 2020, closer cooperation with the MoA was taken up.

¹⁴ The term Village Agent comes from Village Saving and Loan Association (VSLA), which was also introduced in SAHEWA in 2017. The VSLA approach was very attractive to farmers and developed fast. The materials used to train the first groups were based on manuals from VSL Associates. The project staff were too few to handle all the requests for VSLA, so the term 'Village Agent' was introduced. The Village Agent is a gifted VSLA member, who offers to start up and support new VSLAs. But these Village Agents were also promoting better agricultural methods in the villages, so they started to form Farmer Field Schools based on limited knowledge from formal agricultural institutions such as ARC and MOPER. But booklets, local knowledge and experience were used.

In White Nile FFS was a key component of the TMP from the beginning. Here collaboration with the Ministry of Agriculture was agreed at the start of the project in 2017. FFS was already practiced by the Government with one season-long FFS group in each of the State's four localities. But it was Government-led FFS. A visit to one of these FFS groups revealed that this was merely practiced as demonstration farm methodology, where – as the head of agricultural extension expressed it *'farmers could observe and learn from watching this demonstration plot'*

The MoA / MOPER in White Nile had no experience with 'farmer-led' FFS implementation. An FFS training with the focus on facilitation skills was organized together with ADRA in August 2017. 30 MOA staff from many different departments took part. This served to raise awareness and support for the FFS concept within the Ministry and the importance of 'facilitating' instead of 'lecturing'.

The project, which started late 2017 – and was called Tamkeen Al-Muzarein Project (TMP), which means 'Farmer Empowerment' - collaborated with the MoA Extension Office to undertake a small winter season pilot of six FFS groups with four facilitators from December-March 2017-8. This was followed by a number of FFS trainings by FFS Master trainers – both Sudanese and international. The extension officers, who were available for implementation of FFS was initially only 16, so FFS had a much slower start in White Nile than planned, but with a much higher technical competences than in West Darfur. By the end of TMP in 2020 a total of 83 agricultural extension staff had been trained – in short courses or season long training – Farmer Field Schools.

Farmer Market Schools

FMS was initiated by ADRA and tested in two pilot projects in Malawi and Zimbabwe in 2017. The first training in FMS in Sudan was actually already in 2017 – based on the first FMS Facilitation manual, which was even translated to Arabic. The training material was updated with new subjects and methods in 2019 and even further in 2021, as the FMS grew in Africa. In Sudan the 2019 version was used for SAHEWA and SCEED-1 as well as for TMP, after ADRA Sudan was able to send six Sudanese to be trained in the first FMS master training in Addis Ababa in 2019.

Because FMS was a new method - unknown in Sudan and not part of Government policy - stakeholder meetings were held in both states. FMS got a lukewarm reception by MOA in both West Darfur and White Nile. In West Darfur the head of MoA said: *'farmers do not know scientific agriculture, so how would they do scientific marketing'*. Other stakeholders challenged this statement. It was agreed to try FMS out as a pilot project in the State. The stakeholders would be kept informed about the outcome of the pilot projects.

In White Nile the scepticism was even greater. Here various Government staff were present together with NGOs, humanitarian agencies and others at a stakeholder meeting. When ADRA Sudan suggested that FMS could be tested as a pilot project in White Nile the immediate response by participants was skepticism. An elder male farmer stood up and said that farmers were quite happy with the advice on prices by Government. A senior MoA representative expressed doubt about this new approach. ADRA accepted the comments and suggested that the idea would be withdrawn. At this stage the director of the Agricultural Research Center found a compromise: *'You can do the pilot project with the female farmers!'* After a long discussion this was agreed by the stakeholders. They would like to be informed about the outcome of the pilot project.

A much more detailed history of FFS and FMS approaches in the two States based on documents and memory of project related ADRA staff can be found in the special Annex.

Main Findings

Relevance

The extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change¹⁵. The TOR asks: 'Are the FFS, PFS and FMS approaches relevant for vulnerable people in Darfur and White Nile states in Sudan and Somali Region of Ethiopia? Could other approaches have been just as or more relevant? Do the chosen approaches respond to the context and the holistic needs of the target group? Are other needs more pertinent to address?

The main perspective here is how relevant FFS and FMS relevant are to the smallholder farmers' livelihoods, aspirations, capacities and needs. The relevance of the two approaches to the social, economic and institutional context, the farmers live in, is also assessed.

Are the two approaches FFS and FMS relevant for the smallholder farmers in the two States?

It has been described above how Sudan in the last two-three years has been characterised by political unrest, economic crises and effects of climate change. The activities of the farmers were thus disrupted because of this unstable situation in their country, but maybe less than for the town population. Agricultural production was continued, local markets functioned. The two methods in focus for this evaluation – Farmer Field Schools and Farmer Market Schools – were not seriously disrupted. In the one and half year period from mid-2020 - to end of 2021 211 Farmer Market School groups were established in White Nile. In Darfur, FFS and FMS activities also continued – even in situations, when project and Government staff were unable to travel in the countryside.

The relevance of these two farmer-led methods were in that sense proven: the farmers continued the activities by themselves in a volatile context. Their dependence on project staff was limited, because the trainers were largely Village Agents, who are farmers themselves. SCEED project staff in West Darfur told that while they occasionally were restricted from field activities, due to unrest, they could communicate by phone with the Village Agents busy with training farmers despite the unrest.

The relevance of FMS

The smallholder farmers in West Darfur and White Nile had no real other alternatives to FFS than to continue doing traditional agriculture. Many different agricultural extension models are in play all over the world. And there are differences in interpretation what FFS is. So, what is '*the right thing*' and most relevant available way of supporting agricultural production of smallholder farmers? The main factor, which has led ADRA to choose FFS as the '*right thing to do*' in West Darfur and White Nile, was that FFS has a long history in Sudan and is well known by most actors dealing with support to smallholder farmer. It is also taught at several Agricultural Colleges.

The end-evaluation of TMP also highlights three aspects, which make FFS relevant

- First, '*all the intervention of improved production technology, which is introduced by the FFSs is very relevant and of high priority of the community*'. It also highlights as relevant '*the transformation of TMP beneficiaries 'from subsistence to market-oriented farming*'.
- Second, '*The FFS is a participatory approach which provide extension and advisory services that are guided by participatory analysis, identification of the constraints and priority needs and identification of the relevant interventions*.
- Third, '*The FFS approach brings farmers together to discuss and cooperate as a group. This proves their knowledge and experience about the importance of collective and group-based actions*.

¹⁵ This and other definition of evaluation criteria are quoted from the DAC publication:
<https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

In West Darfur FFS was introduced without Government participation. The MoA simply did not have capacity to support this approach. As mentioned, in the section on history of FFS in West Darfur, FFS was first introduced by ADRA in the SAHEWA project 2016-7 as a response to farmer demands. The draft SCEED evaluation is more general and less precise in its relevance assessment of FFS than the TMP evaluation. It mentions that relevance of the project *‘to the area context and the need of the targeted groups is strongly confirmed’*.

The relevance of FMS

The alternatives for smallholder farmers in terms of marketing were selling at the farm-gate to middlemen or at a local market within walking distance. FMS was the only alternative. Farmer Business Schools – developed by FAO – aims at already commercial smallholders and middle farmers¹⁶, but was not known to be practiced in Sudan. The Market Systems Development Approach is practiced by some projects in Sudan, but it lacks the strong focus on the smallholder farmer, that FMS has, and it was not being implemented in West Darfur and White Nile. So, FMS was *‘the right things to do’* in these two Sudanese States.

The TMP end-evaluation highlights the relevance of FMS in the transformation *‘from subsistence to market-oriented farming’* and thus *“linking farmers to the products and input markets as well as improving their knowledge about retail and wholesale markets, products and input prices, demanded crops and varieties, and how to reach the value chain buyers and how to deal with middlemen”*. The report continues: *‘FMS approach draws on principles of adult and non-formal education (taking point of departure in farmers existing experience of the market and creating an inviting space that allows farmers to articulate their own experience-based knowledge)’*.

Coherence¹⁷

Coherence is *‘the compatibility of the intervention with other interventions in a country. It includes internal coherence which addresses the synergies and interlinkages between the intervention and other interventions carried out by the same institution, as well as the consistency of the intervention with the relevant international norms and standards to which that institution adheres’*.

Internal Coherence

This coherence is found in the project design of both SAHEWA/SCEED and TMP. Both projects contain a handful of different livelihood approaches aimed at together improve livelihoods of smallholder farmers. SAHEWA included the following intervention methodologies: group savings through VSLAs, Farmer Field Schools for improved agricultural production and Farmer Market Schools for establishing market access, Community Based Total Sanitation (CBTS) and Community Action Planning (CAP), which make it possible for communities to establish local schools, water and health facilities¹⁸. The key approaches in TMP were VSLA, FFS, FMS and Women Goat groups, which targeted 52 villages. The TMP design also included establishment of water structures, but in other villages as per the Governments’ priorities.

These approaches support the same objective of improving the livelihood of community members in Darfur and White Nile villages. Here coherence was established by the participatory approaches, which rely on communities’ own priorities and resources. The VSLA was in most places the first activity to be introduced in the villages. The demand was high, so typically 3-5 VSLAs were formed in every village. This was largely organized by local Village Agents, who in

¹⁶ It was actually some disappointment by ADRA Malawi with the relevance of FBS that led to the development of the Farmer Market Approach. FMS has some resemblance with a project approach developed by JICA called SHEP. But as a project approach SHEP is not low-cost as FMS.

¹⁷ The concept of coherence was not included in the initial TOR for this assignment, but this sixth DAC evaluation criterion is very relevant, as many findings of this evaluation reveal issues of internal coherence. These are ‘synergies and interlinkages between the intervention and other interventions carried out by the same institution/government’.

¹⁸ Most of these activities were continued in the SCEED project from 2020, The key approaches in TMP were VSLA, FFS, FMS and Women Goat groups, which targeted 52 villages. He TMP design also included establishment of water structures, but in other villages as per the Governments’ priorities.

Darfur later would also spearhead FFS, FMS, CLTS and CAP. In this way the capacity was established by a village to develop further – with limited or even without project funds.

A village agent, **Zeinab Abdelrahman Ibrahim**, born in 1973 in Dorti village close to Geneina, who was interviewed by the evaluation team explained it like this:

'The tribal conflict started 2003 and has lasted until now (2022). I lost two brothers and an uncle in the conflict. I was shot in the arm myself and for that reason had a miscarriage. In 2020 I was trained by ADRA on how to do farming with very small amount of rain. I got seed from ADRA and worked on my farm and on a group farm. We organized our own FFS group and also made a VSLA trained by Adam as facilitator. I was chairman of the VSLA and soon became a Village Agent myself. In 2021 I have started ten VSLA groups in Dorti, Oul Gewa and Gargar. I did this because I like to cooperate with others, I got new social connections. I did not get any payment for this work, but sometimes sugar, rice or macaroni from ADRA. When I had to go out from my village and train groups in another village, ADRA gave me transport and food and an incentive of SDG 3,000 (Later raised to SDG 5,000). I trained my VSLA group here in Dorti in making handicrafts. I have also been trained in FFS by Dar Elsalaam and Adam. In 2020 I trained an FFS group in Dorti, members were the same as those in the VSLA group. In total I trained 3 FFS groups. And I also trained 3 FMS groups. This was over 12 weeks with one session per week. My Dorti group was trained in 2021.'

Strong internal coherence with coordination and internal synergies between approaches was clearly present in both the projects designs and in their implementation in the two States. The complementarity of FFS and FMS reflected the needs of smallholder farmers to improve both productivity and income of their products. In Darfur the SAHEWA project actually combined the two approaches in training programmes in an attempt to meet the most important needs of the farmers. In both Darfur and White Nile, the same farmers would be members of both FFS and FMS groups and VSLAs. The three approaches are closely connected because farmers also need access to savings and loans.

The SCEED-1 end-line survey makes this observation by suggesting how they are interlinked: *'The consultancy team considers the adoption of ADRA full integrated participatory approaches as an implementation strategy (VSLA, FFSs, FMSs and strong engagement of partners) represent a complete model that led to remarkable success of the project interventions and achieving of the result as described in the project theory of change'.*

But the report doesn't mention the importance of the Village Agent for this strategy. The village concept in Darfur is very strong. The Village Agent in Darfur is thus even more a community representative than the village agent in White Nile. In Darfur she is a community worker dealing with FFS, FMS, VSLA and even CAP facilitation. In White Nile village agents were not used to implement FFS, which was done by trained MOA extension staff. The village agent is not mentioned in the evaluation report. But the SCEED annual report 2022 mentions that *'Instability of security situation has resulted in delaying implementation of some activities, but existence of village agents has kept activities moving'.*

External coherence

The West Darfur context was – and is still – considered an area with mostly humanitarian needs and interventions, so only few actors have as ADRA taken a developmental livelihood and resilience building approach. Some activities e.g VSLAs have been taken up by other organisations including FFS, which is implemented in collaboration with the Ministry of Agriculture and the Agricultural Research Department. In White Nile there was a similar development as a result of the TMP, which ended in 2020. Here VSLA promotion was undertaken by a local NGO¹⁹, with which ADRA cooperated. Both in White Nile and in West Darfur there were other organisations implementing VSLAs. They would learn from each other and tried to come up with

¹⁹ FPDO: Fiends of Peace and Development Organization

common practices, e.g. the issue of handling loans in a country with Islamic banking rules. There were no other civil society organisations in the two contexts, that implemented FFS and FMS, however, the project succeeded in establishing close coordination with MoA / MOPER and ARC thus working towards common standards and a coherent development strategy in the target areas.

Effectiveness

'The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. The effectiveness focuses on doing the right things with the time available. Effectiveness means doing the right task, completing activities and achieving goals'. The TOR for this evaluation asks the question: 'What have been the main benefits of the FFS, FMS training? How many farmers have changed practice after participating in FFS, FMS training? Which of the new practices are the most beneficial / effective?

The time available to implement FFS and FMS was different in the two project areas. In West Darfur SAHEWA had developed from 2016 to the end of 2020. It was then replaced by SCEED 1 (2020-21), which most likely will be continued in an SCEED-2 project. ADRA worked in almost the same villages from 2018 to the end of 2021. In White Nile FFS and FMS were implemented in much shorter time. The duration of initial training and learning of the two approaches – FFS and FMS - is different. The FFS process lasts a full agricultural season, while FMS has two-three months with weekly trainings followed by another three months where the FMS group members do research on market opportunities. But then the FMS group members continue the learning process on their own effort. For FFS to continue learning will require an additional season-long training with another identified problem than in the first

It is common practice to assess the real impact of agricultural interventions after two full agricultural seasons, because it takes time to change agricultural practices. The first season after having done market research only few farmers ('first movers') change to a new more lucrative crop with the desired market specification. Their success will urge more farmers join in the second – and even third – agricultural season. The present research took place early 2022, and it was not possible to compare the before-and-after training situations beyond one agricultural season. So, the questions above about *'how many farmers have changed practices'* can only be answered on the timeframe of a training cycle plus maximum one agricultural season. In the impact section the findings from a 'self-monitoring' exercise of 38 farmers that 55% of them could report productivity growth of their sorghum crop from the 2019 to the 2022 agricultural season²⁰.

To illustrate the effectiveness (and also impact) of FFS in the two States an exercise was done with 303 farmers from White Nile and West Darfur. They were asked to tell their perception of their knowledge about new technologies and methods in 2019 and 2022. In 2019 7,1% of White Nile farmers answered that their knowledge was 'good/very good', while in 2022 the %-age had risen to 46,8%. The difference amongst West Darfur farmers was even higher - 10% in 2019 and 62,5% of them in 2022. This indicates relevance of FFS, as most FFS training in both States was undertaken between 2019 and 2022. Other factors could also be involved - like timely rains and availability of inputs. And certainly, one factor would be the practice of better technologies.

Another question in the same exercise of farmers' knowledge of traditional agriculture also saw significant differences. 12,8% of White Nile farmers perceived their knowledge of traditional agriculture was 'good/very good' in 2019, while this perception had risen to 57,6% of them in 2022. The respective changes among West Darfur farmers were 22,5% in 2019 to 59,4% in 2022. This could easily also be a result of the FFS activities, because the starting point of FFS groups are problems related to their traditional methods of cultivation. FFS is based on experimental learning, so to learn more about traditional methods does not contradict the positive tendencies revealed from first question above. So, yes FFS was effective for the involved smallholder farmers in the two projects in White Nile and West Darfur!

²⁰ But such a growth may not entirely be a result of training and new agronomic practices. There are many external factors such as timely and sufficient rain or the functioning of irrigations systems as well as pests and disease attack, which affect agricultural output.

For smallholder farmers there are different time frames for attitudinal changes and changes to new practices. This is clearly shown by the method of livelihood self-assessment (also described in the impact section). It showed much bigger change in areas related to general livelihood issues, well-being, new knowledge and intra-household gender relations than to new agricultural and new market-related practices. The impact section will illustrate this based on a total of 15 different areas of livelihood of the 303 respondents, who participated in the 'self-assessment exercise.

TMP proved to be an good example of effectiveness although it was implemented under difficult circumstances. The project ran for 4 years²¹- of which the first two it was affected by internal and external problems - from 2017/18 to 2020/21. And it had very ambitious goal in term of outreach and numbers of beneficiaries to be trained in FFS and FMS within those four years. Within that time the following results were achieved compared to the results in Darfur in the same period

| | West/Central Darfur | White Nile | Number of farmer groups |
|------------------------------------|----------------------------|-------------------|--------------------------------|
| Farmer Field School groups | 62 | 159 | 221 |
| Farmer Market school groups | 41 | 213 | 254 |
| Total groups | 103 | 372 | 475 |

Was TMP in White Nile more effective than SAHEWA/SCEED in Darfur? This can be answered by both a no and a yes. The no will relate to resource differences of the two projects. But the yes, will relate to the innovative methods, by which TMP succeeded to reach especially the impressive number of FMS groups established.

A similar exercise as for FFS in relation to effectiveness was undertaken with 303 FMS group members. They were asked four different questions about market related changes of perception, which they had before and after FMS training. The highlighted differences compare positively with differences found for FFS training above. This certainly also proves the effectiveness for FMS in the two project areas.

| | % 2019 | % 2022 | Difference |
|--|--|--|-------------------|
| My knowledge about the market? | Good knowledge / a lot of knowledge | Good knowledge / a lot of knowledge | Increase in % |
| 16 FMS groups in White Nile | 6,5 | 67,5 | 61,0 |
| 2 FMS groups in West Darfur | 4,8 | 75 | 71,8 |
| My trips to towns or market towns to enquire about prices | Every second month / Almost every week | Every second month / Almost every week | |
| 16 FMS groups in White Nile | 12,1 | 46,7 | 34,6 |
| 2 FMS groups in West Darfur | 7,3 | 63,1 | 55,8 |
| How often I grade and pack my crop before sales? | Very often / Always | Very often / Always | |
| 16 FMS groups in White Nile | 11,9 | 48,8 | 36,9 |
| 2 FMS groups in West Darfur | 8,3 | 75 | 66,7 |
| My participation in collective marketing' | Very often / Always | Very often / Always | |
| 16 FMS groups in White Nile | 5,8 | 31,5 | 25,7 |
| 2 FMS groups in West Darfur | 7,3 | 44,7 | 47,4 |

FMS was facilitated by village agents in both West Darfur and White Nile. They did a commendable job taking into consideration that they initially used an outdated FMS manual from 2017 and an

²¹ The first two years TMP faced big external and internal management problems that caused delay of implementation.

English version from 2021²². What is most amazing is the way TMP and MoA staff in White Nile designed a method to scale up in a short time. As the first FMS practitioners anywhere, they did cluster-based training partly based on the practice used by some Ministries of Agriculture in Africa. As a result, TMP was able to establish 211 FMS groups in 52 villages in two localities in White Nile over 1½ years from 2020-21 with 6,439 FMS group members (27% men, 73% women).

Efficiency

‘The extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. Efficiency thus means completing the task correctly with minimum cost. But from the efficiency perspective a timeframe is not necessarily the end of funding of projects but is reasonably adjusted to the demands of the evolving context. Its main aim is doing the task in the right way’. In the TOR for this evaluation ‘efficiency’ is defined as ‘Looking at the number of farmers who have been trained in FFS, FMS in total and their benefit from the training compared to the funds put into these trainings and follow-up, how efficient are these methods?’

The efficiency question for Farmer Market Schools is relatively easy to discuss. The ‘right way’ to do FMS is based on a few years of experience by ADRA starting 2016-17 in Malawi and Zimbabwe and developed in Sudan as described in the history section above. The FMS training has two parts – one which is facilitated by an FMS facilitator who introduce a number of market and household economy topics in three-four hours weekly sessions. After this the farmers take over and do their own discovery learning about their specific market situation.

All transport expenses for this are paid by the farmers themselves. Afterwards farmers will continue doing their own research and making their own market deals using their own resources. In Sudan, FMS facilitators would typically train farmer group representatives, who will train her members. This was done by Village Agents, who are not paid or paid in kind. The method is thus not demanding in terms of external resources. In that respect it compares to VSLA model, which has mushroomed in Africa over the latest 10-15 years. FMS is also growing fast. At the time of writing there are around 800 FMS groups in 8 countries, and the demand for FMS is growing.

While FMS for smallholder farmers – with no other alternatives - is the right thing to do, it was also ‘done the right way’, based on best practices developed in other countries. FMS experiences in Sudan, on the other hand, also contributed to best practices exemplified by the cluster approach to wide outreach used in White Nile. The ADRA FMS Coordination Unit is presently the only institutional backup to FMS.

FFS has a double purpose: farmer empowerment by participatory learning and technology adoption for increased productivity. These two sides of FFS are how the approach is understood in Sudan and thus it is to ‘do FFS right’ in the Sudan context also during political crisis, conflicts and economic problems. FFS has a season-long training period, while training the FMS curriculum takes 14 weeks. There are no external inputs to FMS apart from the initial facilitator training, All travel costs are paid by the farmers themselves. But an FFS requires funds for inputs to do experiments. But that is also the case for competing agricultural extension approaches. Ministries of agriculture in Africa – including Sudan – not only struggle with close to zero development budgets, they even struggle to pay their staff decent wages. FFS is thus mainly found where externally funded projects have FFS in the design.

Efficiency focuses on costs. The two methods FFS and FMS have three levels of the training pyramid: There is an initial training – TOF-1 - of FMS Facilitators or FFS Master Trainers, who in turn train farmer group representatives or Village Agents. This is TOF-2. And at next level these village agents or farmer group representatives train their members (TOF-3). This cascading process makes it possible to reach big numbers of farmers, if the quality of training is retained.

²² ADRA Sudan has now been given all updated FMS training materials and will initiate the translation of them to Arabic.

In terms of cost this training approach represents decreasing costs per trainee. The initial training could be relatively expensive in terms consultancy fees, transport and other resources. The second level is less expensive with project staff or extension workers undertaking the training, and the third level the cost goes further down, because the facilitators now are farmers themselves.

So, if the cost per trainee may be USD 20 per trainee at TOF-1 level, USD 2 per trainee at TOF-2 and 0,2 USD at TOF-3. The cost of training 20 facilitators will be the same of 200 farmers. This is not based on actual figures from Sudan but shows the increasing cost-effectiveness by using this approach. In Sudan village agents were used in big numbers in Darfur for both FFS and FMS implementation. In White Nile the FFS did not use Village Agents²³, so all farmer training took place at TOF-2. For FMS implementation 178 Village Agents – at TOF-3 – were used, which makes FMS much more cost-effective to implement than FFS.

Regarding the exact cost in terms of project inputs to establish 221 FFS and 254 FMS groups in Sudan, this research has not been able to calculate the cost efficiency in terms of resource inputs. This would have required considerably more time to go through documentation in ADRA project archives. But it could maybe be done with one of the ongoing FMS pilot projects in other countries.

Impact

Impact is *'The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects.* The TOR for this evaluation raises these questions relevant for impact: *'Has the implementation of the FFS, PFS and FMS approaches improved the resilience of vulnerable people in Darfur / White Nile states in Sudan and Somali Region of Ethiopia?'*

This research has focused a lot on impact, although it is generally difficult, especially when using a survey approach based on yes/no-questionnaires. It is important to have dialogue with the farmers or farmer groups. Here a participatory tool is used. Most of the data below are collected from an exercise of livelihood self-assessment, where members of 18 FMS groups gave their responses to 15 subjects, which all allow a choice of agreement in a graduation from *very low, a little bit, not high, average, high to very high*. 303 individual answers were collected from the members of 16 FMS groups in White Nile and 2 in West Darfur.

The percentages relate to scores given in each of the six choices in 2019 (by recall) before training and in 2022 after training. The full result of the exercise can be found in Annex 1. Here the combined percentages of the two highest possible scores *'high'* and *'very high'* for 2019 are compared with the similar scores from 2022 to illustrate the degree of impact.

General Livelihood

Five subjects related to the personal and household level and the general livelihood of the involved smallholder farmers were examined. The research instruments were the livelihood self-assessment tool and the self-monitoring tool – combined with individual interviews of Village Agents, FFS trainers, and FFS/FMS groups (see annexes). The questions and the percentage of the two combined highest scores were the following. For e.g. the question *'how much I save regularly'* the percentage would show the combined percentages of *'a good amount'* and *'very much'* in both 2019 and in 2022

| Subject | % high / good and very high / very good before intervention | % high / good and very high / very good after intervention | Difference in % |
|-------------------------------------|--|---|-----------------|
| How much I am saving regularly | 3,4 | 54,3 | 50,9 |
| My household's situation in general | 10 | 60,4 | 50,4 |

²³ Training of FFS **farmer trainers** were part of the initial TMP project design but did not materialize. The much longer training period of FFS and the technology inputs from the Government, which may have contributed to the decision of not using trainer farmers. But these arguments have not been confirmed and are the issue is also not dealt with in the TMP evaluation report.

| | | | |
|-----------------------------------|-----|------|------|
| The health of my family members | 15 | 58,8 | 43,8 |
| My own self confidence | 5,7 | 44,1 | 38,4 |
| My general happiness with my life | 9,1 | 46 | 36,9 |

As 303 FMS members agreed that their households' general situation has improved by between **36,9%** to more than **50%**, this indicates a sizable increase in positive livelihood perception and reduced vulnerability of smallholder farmers, who have been through FFS and/or FMS training.

Excerpts from interviews of farmers participating in this exercise showed that 'self-confidence' for them is associated with improved income:

- *I have confidence, because I learned how to get money. I am happy now*
- *Yes, I have confidence and also do savings*
- *I am very confident and happy from saving money and trading*

Gender

Gender was part of the exercise with two assessments, which focused both on intra-household management of its economy and on decisions about what to plant.

| Subject | % high & very high before intervention | % high & very high after intervention | Difference in % |
|--|--|---|--------------------|
| A The degree of male and female household members sharing in the management of our family farm's economy | 3,4 | 54,3 | 50,9 |
| b: Degree of male and female household members sharing decisions on what to grow | 10 | 60,4 | 50,4 |

The results show a marked improvement in gender equality both intra-household management and decision-making about what to grow shows. There would be no reason why the respondents should not give honest responses. Most of them were women, and the overall impression of Sudanese rural women is that they are extremely strong. Many households are headed by women, even when they are married (see the in-depth interview of Zainab in Annex 4).

Often men have jobs outside the village and earn money from migrant labour, e.g. the annual cotton harvest attracts many men from all over Sudan. A factor may also be that polygamy is common in Sudan, whereby women have stronger roles in the household, while the man is often absent. In Sudan male farmers are typically associated with irrigated agriculture – e.g. in White Nile, where tractor ploughing is used, while women use hoe cultivation on rainfed plots. Decision-making on what to grow would gender-wise maybe not be the same for the two types of agriculture.

Impact resulting from FFS training could not be differentiated from FMS training in the questions on general livelihood and gender. Most of the members from the 18 participating FMS groups were also members of FFS groups. Whether there is a synergetic impact cannot be clearly proven with the research instruments available. But the subjects can be split in those with an agricultural content and those with a market content.

Excerpts from individual interviews:

- *I have used my savings to pay for my children's school fees. My husband and I share our household economy.*
- *The only problem I have with men is that they do not like to be taught by a woman*

FFS and Agriculture related Impact

Three questions are dealt with under this heading: knowledge about 'traditional agriculture and new agricultural technology and methods', 'agricultural productivity' the 'effect of climate change

on agricultural production'. The first and part of the second of these three issues have already been dealt with in the relevance section of FFS.

The FFS and FMS approaches have also impacted on farmers agricultural productivity as already partly been discussed under the heading of FFS effectiveness. But a more detailed, additional exercise was used to detect the impact on one crop over two agricultural seasons. Here another participatory instrument was used, where farmers would compare their productivity from before FFS/FMS training – and afterwards.

The 'Self-Monitoring tool', which is part of the FMS training is relevant to capture productivity. It compares production per fedhan for two harvests as well as the related income. Because of the high inflation the income figures would be unreliable as a measure of progress. The productivity in 2019 was compared to that of latest harvest in 2021 for one crop: sorghum. The exercise was done with 38 farmers in White Nile only. In White Nil. On average the increase of yield was **37,2%**. But that figure covered a range from 400% to -100% (See Annex 6).

Extraction of production data from famers may not always be useful because of their reluctance to tell their exact production and income. With that in mind it was still pursued. Experience shows some reluctance of farmers to give out their production data – for many different reasons. They would most likely report an under-estimation of the harvested crop. So, when this exercise showed that **55% of 38 farmers** reported productivity growth, this may probably be estimated as a minimum. In reality the %-age may have been higher.

But apart from farmer bias, production and productivity data from rainfed agriculture are strongly reflecting the actual rainfall, its time and duration²⁴. And for both rainfed and irrigated agriculture soil preparation, timely planting, attacks by insects and birds play a big role for the result of the harvest (Locusts have been a huge problem in the Horn of Africa in 2019-21). Use of heat resistant seed and the use of fertilizer also play a role. All these factors – and even more – can affect the harvest both negatively and positively.

The effect of climate change on agricultural production was delt with in the livelihood self-assessment exercise. Involving 303 farmers. They were asked: what is the effect of climate change on my production?

| | % high & very high 2019 | % high % high 2022 | Difference in % |
|-----------------------------|----------------------------|-----------------------|-----------------|
| 16 FMS groups in White Nile | 20,6% | 42,9% | 23,5% |
| 2 FMS groups in West Darfur | 10,6% | 55,2% | 65,8% |

This shows that climate chance is not a new phenomenon, but also that is increasing. Climate change is increasingly experienced by all African smallholder farmers – not only in the Horn of Africa. In this template the respondents were asked to compare the effect of climate change in 2019 and 2022. And it is not surprising that the effect is felt much stronger in Darfur, which is mostly semi-arid with only seasonal rivers, than in White Nile, which is situated along Africa's biggest perennial river. The tendency to say that the effect has increased is very clear, but in White Nile the difference is much less outspoken than for other questions.

These responses are unrelated to FFS or FMS activities. Climate change has been known by farmers in Sudan for many years. The spread of the desert southwards has happened for more than a generation, not least in Darfur, where the water resources are reducing – an element of the various conflicts in Darfur in the last 20 years. A view from SCEED project staff in West Darfur:

²⁴ *The impact of rains and climate change are so important in the Horn of Africa in general, that a year-to-year comparison on productivity may not be a result of e.g changes in productivity due to better agronomic practices, but just be a reflection in external conditions, including the overarching importance on the rainfall as a key factor.*

*Improved seeds are recommended to face the climate change – because of shortage of rain. 'Climate smart agriculture' is to be implemented along with FFS in the SPA for Sudan 2022-25.*²⁵

FMS and market related Impact

Some of the questions raised in the livelihood self-perception exercise dealt with core FMS issues – Market knowledge, trips to the market, value and addition collective marketing. They have been presented under the section dealing with effectiveness of the FMS approach. To test the impact on the FMS members a number of interviews were made, some of which will be summarized here:

- *We have two kinds of markets: the big one in Rabak and the market in the village. I know them both now*
- *The market is a place where you get services and can get storage space*
- *I ask about prices before I go to the market*
- *I have stopped selling to the middleman, I now go directly to the market and try to find out about prices before bringing my goods*

Their first interactions with the market can also be illustrated with summary of statements about trips to town markets:

- *I ask the men, who go to the market about the prices*
- *Before the FMS training I never did it, now I do*
- *I investigate prices and other things in the livestock market and the crop market by mobile phone*
- *When I want to know prices, I contact three or four different markets*
- *When I plan to plant, I contact people in the markets, who know prices*
- *I go myself to different markets to collect information including prices*
- *I go to Rabak market to know prices, or I use the phone*

Zainab in West Darfur was asked about the benefits she gets from being in an FMS group:

Zainab answered that she has got more market knowledge. She studies prices weekly. She contacts traders to get the information. She said: *'We get a better price if we add value to the crops, such as grading. We always sell directly the end-consumer. Mostly I sell independently'*. She feels she has become more confident in the market. She avoids middlemen (who actually most often are women!). *'They give us low prices. They want power. Now we have confidence. We know everything. We make relationships with the traders, we can trust'*.

Questions were also put to the interviewees about the importance value addition. Brief quotes from short interviews of FMS members in White Nile: How often do you do research in the market about prices, quantities etc. about crops you grow? Doing value addition to crops before selling them and engage in collective marketing are seen as the two most important immediate ways of increasing income from better marketing. And the good thing is that value addition typically develops with more and more market insight. Some answer from interviews show the impact on farmers in relation to doing 'value addition':

- *We clean the crop and for vegetables, we grade them*
- *We arrange the crop in a good way*
- *With okra we grade it and then sell it*
- *We arrange the crop and pack it*

- and on doing collective marketing:

²⁵ ADRA has a 'Climate Smart Subgroup of its Livelihood Technical Learning Lab', with which FCU plan to cooperate to develop a new concept for 'climate smart marketing'.

- Yes, one or two persons ask about prices in the market, then when they come back, we collect our crop, and we go together
- We did collective marketing last season because the sorghum crop was low, the demand was high, and they sent a car
- We collect our crop in one portion and a car-owner takes it to the market and sell it for us
- We were 20 women who did it ourselves. We pooled our okra crop and sold it for 4,800 SDG per 30 kg, we paid 400 SDG per 30 kg for transport and earned 4,400 SDG per bag. We distributed the money amongst us
- We were six women who collected 10 bags of wheat. We sent a person to enquire about the price. Then we rented a car and sold the wheat. We distributed the money amongst us
- We did not do collective marketing till now

Zainab was also asked about her experience with collective marketing:

'Mostly I sell independently. But we are also sometimes selling together. We could be 5 persons taking our crops to the market together. We rent a Tuk Tuk or a horse cart and load our bags. Two of us go along the market and sell the crops. They bring back the money, which we share.'

The responses and interviews show that the farmers in White Nile and in West Darfur were doing collective marketing in more or less the same way. They had no interaction in this regard with FMS trainers. It was purely as a farmer initiative. There is a widespread perception of collective marketing being dependent on cooperatives²⁶. Actually, in the FMS training manuals the logic is presented as the reverse: Collective marketing may develop first in a small scale, before farmers decide to work collectively in larger groups and eventually form cooperatives or another type of farmer groups/organisations. There are too many examples in Africa of unviable cooperatives and other farmer organisations lacking the true ownership of their farmer members.

Sustainability

Sustainability deals with *'the extent to which the net benefits of the intervention continue or are likely to continue'*. From the TOR: *'Are any of the new practices embedded in FFS, PFS used to adapt to climate change? Can any climate and / or environment aspects be found in relation to FMS? Is it likely that the methodologies will be used by community members beyond the end of the project period?'*

The issue of sustainability seen from the farmers' perspective is related to the degree the FFS and FMS approaches lead to sustainable livelihoods. The answer is found in the previous section from those elements of impact that will last or even increase without project intervention.

The FFS is based on the duality of farmer-based initiatives to investigate production related problems and the ability of MOPER and ARC to make latest technologies available to the farmers, e.g drought resistant seed and fertilizer. The impact of FFS has been documented in terms of increase in production of sorghum – the key staple crop in Sudan. New FFS groups with the same or different crops will be likely to witness similar improvements. The question of sustainability of FFS hinges on the ability to continue with season-long FFS activities based on farmers' initiatives.

Institutional capacity of the implementing partners, which have trained the farmers in the project area in FFS is vital. When ADRA first approached MoA in White Nile, the ministry had a capacity of supporting 4 FFS groups annually. The TMP had ambitions of supporting many more FFS groups over the four years – 2017/18 to 2020/21. In reality TMP achieved to train a total of 83 MoA extension officers in the FFS methodology and to establish 159 FFS's and. The end-evaluation of TMP concluded that these numbers were unsustainable in the post-TMP context. *'The project has succeeded in activating the role of agricultural extension that was completely lacked in the project area before the project due to deficiency of government budgets'*.

²⁶ This viewpoint is clearly shared by the authors of the TMP evaluation report described earlier. It strongly advocates for the formation of cooperatives as farmers 'are looking for external technical and administrative support guidance to help them form cooperative societies'.

Therefore, sustainability after project-end is largely based on allocation of budgets for MOPER extension activities: *‘MOPER should manage to allocate enough budget to enable permanent existence of extension worker on site with farmers to deliver agricultural knowledge and technical support.... The huge effort done in making this project a reality shall be prone to loss unless the concerned government bodies be committed to own the related project intervention and extend the desired operational support to the beneficiaries.*

But such budget allocations do not seem possible in the present reality of economic crisis in Sudan even if farmers put pressure on the Government. The farmers may continue FFS-like activities with the use of unpaid farmer facilitators/village agents. But, as mentioned, ‘farmer trainers’ were not involved in FFS training in White Nile despite being part of the TMP project design. It can be said that TMP had not secured a phase-out plan for FFS post-project but boosted the extension capacity for a short time in order to at least introduce FFS for as many farmers as possible. The sister-project SCEED in Darfur should learn from this by securing, that farmers are being trained as FFS facilitators for sustainability.

The sustainability of FMS partly faces similar problems. But the FMS process differ from the FFS process. An FFS group can continue season after season with learning how to solve new problems. This is what happens in Bejbej in Darfur, where an FFS group has continued for five consecutive seasons – each with focus on a new crop and with inputs from MOPER/ARC experts. The FMS group is trained only once. After the training the farmers start interacting with the market on their own initiative and without project inputs. There is no reason, why this process should stop, when the project, which trained the FMS group, ends. Actually, it is quite possible that the learning process of how markets continues and grows. In that sense FMS has an inbuilt sustainability.

But FMS is a new approach – started with the first FMS groups in Zimbabwe and Malawi in 2017. There is evidence of individual farmers, who started as FMS members and after training have established viable business relations with market actors. But there is also evidence of limited market opportunities in remote areas, where farmers face long and difficult transport conditions to reach the markets (West Darfur). Some markets also appear to be un-diversified (= all end-buyers buy the same products). In such cases farmers will still be able to improve their market strategies – e.g with collective marketing and value addition, but not making big increase of income.

The FMS members in White Nile will be able to exhaust similar nearby market opportunities as those in West Darfur. But they may not on their own initiative be able to access the huge and diversified market of Khartoum and other big towns with their present skills learned in the FMS training. The evaluation team has discussed this issue and will take it up in the FMS Coordination Unit of which the evaluation team members are members.

The post-project situation for the Village Agents is also mixed. They are all farmers and will be able to continue farming with their new skills. Short interviews of eight Village Agents in White Nile show something about their potentials:

- *One of the things I am now doing is helping some other farmers on how to use a weighing scale²⁷*
- *The FMS session is mostly only two hours, which I feel is too short*
- *I like to be a Village Agent. It is a good feeling to teach farmers something new*
- *I think all subjects in the FMS training are good, but export and international trade could be added as a subject*
- *I have improved my own family farm by buying a refrigerator from my savings in VSLA to keep some of the crops fresh,*
- *I am now weighing the crops before taking time to market, and I no longer use a middleman*
- *I have now become a merchant, myself, and a buy crops in my village to sell on the market and I pay in the village*

²⁷ In both ADRA projects mechanical scales were given to FFS and/or FMS groups. Both evaluation reports mention the importance for these scales, which farmers use to weigh seeds correctly before planting and also for farmers to not be cheated by middlemen, when they bring their crops to the market

Of the four village agents interviewed in West Darfur, Zainab is training women in handicrafts, but she also plans to concentrate on her farming activities. Alsadiq wants to study at Master level, maybe travel to other countries. He wants to improve his English. He also wants to develop his farm and maybe be a businessman, who would supply vegetables and other agricultural products to Khartoum, Chad and Blue Nile. Abubaker wants to use his skills learned in the Farmer Market School to increase his income by employing his market strategy. And Mariam wants to work as a midwife (See Annex 4).

Some will also be able to deliver unpaid services to their community members. The village agents, who were interviewed for this evaluation have potentials to be good market-oriented farmers or even middlemen themselves, because they know both farming and the market. They may also take up different income generation activities and be entrepreneurs (as Zainab plans). But some may also have a potential to become community leaders. This is especially an opportunity in West Darfur, where some Village Agents have played central roles in community organisation in CBTS and CAP. They will be as civil society leaders.

SCEED is still existing and should seriously look at how these alternatives can be supported. The ADRA FCU will also take these issues up in relation to the further development of the FMS approach, including how FMS can be linked to strong market institutions and methodologies for wider development of market systems.

Concluding remarks on Sustainability

To what extent can we say that the FFS and FMS processes are sustainable, so that smallholder farmers in the future will be able to access the training and skills, which lead to sustainable livelihoods? It often happens, that when a project with its funding, skills and methods comes to an end, most activities stop. But some of the established groups may survive – at least for some time. But there are some sustainable options.

The FMS farmers, who start collective marketing may with increasing success start business-oriented organization or societies, which will increase members' income. The formation of sustainable organisations or businesses rely very much on all the various types of initial group experiences: VSLA to be a good money manager and a splendid kindergarten for democratic group governance. FFS groups are based on best agronomic principles to develop a productive farm, and FMS to make this farm grow by having good marketing strategies. In that sense both SAHEVA/SCEED in Darfur and TMP in White Nile can be said to have been given some threads, which can bind together to develop sustainable entities.

But this does not happen automatically. The possibility to build village-based Community Based Organisations as an exit strategy in Darfur could be tested. It would typically be led by village agents, who have trained their community members in VSLA, FFS, FMS and CAP. They would build civil society at the grassroots level. Village Agents would be central actors in the suggested CBOs. In White Nile a similar strategy may be more difficult to pursue, as TMP ended in 2021.

There may be an additional alternative for the Village Agents – especially after they have completed their training of FMS groups. It has not been tried: examining the possibility of some Village Agents to join the private sector as business development agents. That may only be realistic for some of them, maybe especially in White Nile, where there are big lucrative markets relatively within realistic reach, which the farmers have not yet reached. So, some village agents could be involved of contacting bigger, more lucrative markets and thus become service providers, who get a commission of bringing farmer and buyer together. That would also be a business for them but another kind than the one described above.

Conclusion

The findings in this report are based on a combination of secondary data and participatory field work. Two relevant project evaluation reports and the field research tools show very clear livelihood improvements for members of Farmer Field Schools and Farmer Market Schools. Below the main findings of this research are presented under three headings: Farmer Field Schools, Farmer Market Schools and Village Agents.

Farmer Field Schools

Farmer Field Schools were established in both White Nile and West Darfur but with a different history: Farmer Field Schools grow out of community activities in SAHEWA in Darfur, but were a central component of the TMP design from the beginning. In White Nile the capacity of FFS trainers improved in the first two years of the project (2017-19) by the use of international and national FFS master trainers. Their trainings were season-long and of high quality. Some few ADRA staff and Village Agents from Darfur took part in trainings in White Nile later-on.

In West Darfur, FFS started as a product of Village Agents drawn from communities in the SAHEWA project area. In total **159 FFS** were established in White Nile and **49** in West Darfur. There is proof of increased productivity in the two evaluation reports of TMP and SCEED-1 as a result of FFS activities. A 'self-monitoring' exercise by 38 farmers in White Nile also revealed increasing yields of their sorghum crop from 2019 to 2022.

In White Nile the attempts to train and use FFS farmer trainers did not materialize. A total of 83 FFS MOA staff were trained as FFS trainers. All trainings were, however, not season-long, so only few of these trainers in White Nile could be called FFS master trainers. Interviews of eight FFS Facilitators from MOPER in 2022 showed that their training had been relatively short from 5 to 14 days. The FFS activities implemented by MOPER could not have taken place without considerable project resources, e.g improved seed were covered by the TMP budget. In West Darfur, the FFS activities in SAHEWA were not anchored in the MOPER. But in the SCEED-1 project (2020-21), which succeeded SAHEWA, MOPER was given a bigger role especially in the projects' expansion to Central Darfur.

With MOPER as the driving force in FFS implementation, the classical question was raised on, how extension can 'modernise' agriculture by introducing new technologies, while also initiatives are bottom-up through farmer-led experimental learning as advocated by FAO. In White Nile the impact by solid FFS Master trainers created a balanced view. The TMP evaluators list several technology improvements as a result of FFS implementation carried out by MoA extension staff in collaboration with farmers. The report also mentions the participatory nature of FFS and makes the point, that this was only possible because of considerable donor funding through TMP.

In West Darfur, there was possibly a paradigm shift from 2020. The evaluation report on SCEED-1 is quoting **technology adoption** as primarily a product of initiatives by TEEA staff. Demonstration on FFSs farms *'have proved to be the best way of convincing farmers to change their traditional ways of farming and adoption of modern techniques'*. Village Agents are only mentioned in connection with VSLA activities. But interviews with Village Agents and ADRA staff confirmed, that FFS actually still involve Village Agents as trainers (!).

The relationship between TMP and the Ministry of Agriculture in White Nile was very close from the beginning. There was dialog all the time. Three MoA staff were actually seconded to TMP up to the end of the project. (Some of these seconded staff were assisting the research team in planning the field activities. None of the initial TMP staff were present, since the project ended in 2021). These seconded staff took full part in TMP's FFS and FMS activities. In Darfur the relationship between SAHEWA and the MoA was initially not cordial. But in SCEED-1 the relationship appeared to be much closer²⁸.

²⁸ During the 4-day visit to Darfur meeting MOPER was not planned, and its capacity and outlook was not assessed.

In Darfur agronomy and marketing subjects were initially combined in some trainings. While this may be logical and practical from a farmer's and a Village Agent's perspective, it may reduce both FFS and FMS to a conventional training program with less emphasis on participatory learning. Experimental learning on a field and the discovery learning by visiting markets are the basic processes for both approaches. In both States many FFS members are also FMS members, who have been going through the whole training of both approaches. To combine FFS and FMS in one process over an agricultural season and the lean season is maybe a possibility. This would answer the ultimate logic of producing for the market and use market information to decide what to grow.

Farmer Market Schools

In almost all interviews and exercises with FMS members better market knowledge was mentioned as a result of the training. Market knowledge gives self-confidence, which is very important for the farmer. It is the foundation for developing a market strategy. Farmers focus on the nearest markets, but even this requires them to develop a strategy such as selling directly to the end-consumer. The various market strategies mentioned by FMS members start with them identifying market buyers of their liking. Price fluctuations were identified as a major factor to be aware of in a selling strategy. Direct sales could be enhanced by farmers having their own stalls - rented or owned in order to be able to keep unsold commodities at the market without taking them home again. Several groups have applied for such spaces in the Geneina retail market.

The middleman/woman plays a big role in the concepts farmers generally have about the market. FMS training emphasizes exploring the market beyond the middleman. But this does not mean that the middleman should always be avoided. The result of farmers' market analysis gives her knowledge and self-confidence, which makes it possible for her to treat the middleman as a business partner – not an exploiter. Farmers can then concentrate on cultivating for the market. The FMS members interviewed had not yet reached to that conclusion. They simply bypassed the middleman/women (in Geneina) - and developed relationships with buyers of their own choice. Many farmers have mobile phones, which makes direct contacts to market buyers easy. Most farmers sell directly to market traders or directly to end-customers after checking daily prices via phone contacts. They can then hit the market, when the prices are raised and avoid times of glut.

One of the most important activities in their marketing strategies are value addition – specifically grading, packaging and semi-processing. The drying of okra, hibiscus flowers (used for the famous *kakadee*-drink in Sudan) and dried tomatoes are popular market options. Collective marketing is also practiced in both West Darfur and White Nile. Farmers may bulk their produce and hiring a tuk-tuk, which takes it to the market. But an example of twenty women hiring a truck to bring their product to the market was also reported. Two of the FMS members would travel along with the truck and bring the money back to the group and share it out.

As for FFS the initial training by FMS master trainers²⁹ was very important for the success of FMS, both in White Nile and West Darfur. It is impressive that the FMS facilitator training manual in English from 2019 was used throughout. After the FMS training material were updated in 2021, the contact to Sudan – was reduced (for a number of reasons, including the corona pandemic and the Sudanese revolution). It is now agreed with ADRA Sudan that the 2021 versions of all FMS training material will be used and translated to Arabic.

Village Agents

The importance of Village Agents in Sudan cannot be ignored. They are a huge asset, who have played a central role in the success of FFS and FMS – and of course also VSLA from which the name 'village agent' comes. The Village Agents have become seasoned facilitators of several activities. They facilitate different kinds of groups FFS, FMS and VSLAs. The community-based Village Agents are less costly for a project, but they represent community skills, which do not

²⁹ The term 'FMS master trainers' were used for the participants in the first FMS training in Addis Ababa in 2019. Sudan sent six participants to this. Four of them have trained several batches of FMS facilitators in Sudan. They are Dar Elsalaam Osher project staff in SCEED, Alsadiq Ibrahim Isack Village Agent in Agora Village, West Darfur, Muhamed Almutazi of FPDO in Kosti, White Nile and Muhamed Fadl of ARC in Kosti, White Nile.

disappear, when a project is ending. The most amazing result of the activities of Village Agents was the establishment of 211 FMS groups in White Nile over 1½ years in 2020-21. The innovative design of weekly training of 178 Village Agents in clusters was followed by the Village Agents copying the training in FMS on another weekday. This is a model, which the FMS Coordination Unit will take up as a lesson learned.

The rural setup in Darfur is different from that of White Nile, where villages in Darfur are separate entities with long histories. The countryside looks like a sea with village islands. Each village is a defined entity surrounded by shrubland – used by migrating pastoralists. There may not be a road, which connects one village with another. The Village Agent is thus typically a person who belongs to a village, where h/she lives, and where the task of the Village Agent is to support the formation of VSLAs, FFSs and FMS.

The Village Agent finds it natural to be a trainer of both FFS, FMS and VSLA. In West Darfur they have even initiated CAP projects. They function as community organisers. Compared to the MoA extensionist the Village Agent is more focused on broad community needs and capabilities, while the MoA extension worker is a technical specialist. Therefore, a logical exit strategy for SCEED in Darfur would maybe be to urge Village Agents to form village-based community development organisations, something which has been done in Darfur before. This would not reduce their need for being trainers, but would add advocacy strength to the communities they live in.

Village Agents normally do not receive payment for activities in their own village, which is regarded as community obligations³⁰. But when they have to go to other villages, they are paid for transport and food by a project or by the villagers. In Darfur the main problem is transport between villages, as bicycles cannot be used as there may be no roads, and there is a lot of soft sand. Using motorcycles is not allowed by the authorities for security reasons, so what is left is to use donkey transport or by a horse. But not many villages have horses, so a horse should be hired and paid by the receiving village should agree to pay this cost (not yet tried out!)

Future of Village Agents

In both completed projects, the same question can be raised: What is the role of the Village Agents after the projects, they were involved in, end? Without a project with plans and budgets, most of the Village Agent will probably not continue all the time-consuming activities, they do at the moment, except in their own villages. The Village Agents have of course benefitted from the training they have given – be it as FFS, FMS or VSLA facilitators, and they have life-plans.

Some Village Agents have a potential to do business, even as the hated middlemen/woman. They have a very good local knowledge good market knowledge. This may primarily be confined to the local market, but also in some cases more distant markets. Some Village Agents and other farmers may have appetite to reach to markets further away with totally different needs and requirements of transport etc. Would it be possible that some of the Village Agents could become honest brokers or business development agents, who would help the farmers on the one hand to get contacts to big buyers, and on the other hand also help such buyers to get contact to well organized farmers and farmer groups? They would then become service providers in various relevant value chains.

³⁰ SAHEWA/SCEED have paid 'incentives' of 3,000-5,000 SDG per day for going to a far-away village engagement, while MoA Extensionists will be paid the official rates – SDG 10,000 in Darfur - for such visits including transport and lunch allowance by the project.

Recommendations

1. A stakeholder meeting should be called in West Darfur to give feedback on how FMS has benefitted the farmers and on plans with FMS ahead. A similar meeting should be held in Kosti, which ADRA promised at the first stakeholder meeting in 2017. Since both SCEED-1 and TMP have been evaluated, this may also be an occasion to share the findings in a stakeholder forum at State level. Action: ADRA Sudan should take responsible for this.
2. The possibility to build village-based Community Based Organisations as an exit strategy in Darfur should be considered to combine all developmental activities in a village: VSLA, FFS, FMS and CAP. This will build civil society at the grassroots level. Village Agents would be central actors in the suggested CBOs. In White Nile a similar strategy may be more difficult to pursue, as TMP ended in 2021. Action: ADRA Sudan with SCEED team.
3. There may be an alternative for some few Village Agents to join the private sector as business development agents, who offer linking service between private sector companies and farmers of specific crops. This may be most realistic in White Nile, as lucrative markets are relatively close by, which the farmers have not yet reached. For The FMS Coordination Unit should take this issue up and discuss it with ADRA Denmark and ADRA Sudan.
4. An Arab translation of the 2021 FMS Facilitation Manual is highly needed and a precondition for further FMS programming in Sudan. ADRA Sudan has committed itself for this already, which is very positive.
5. ADRA Sudan has a role of keeping the flag high for the continuation of seeing FFS as a farmer-led approach and to counter an unbalanced insistence on it primarily being a vehicle for technology adoption. FFS is not only implementable by Governments, also by other NGOs and International agencies involved with smallholder farmers and agriculture. ADRA Sudan should join some of the existing national and regional FFS networks/forums.
6. FMS Coordination Unit should share the important lessons learnt from Sudan widely on optimal outreach of implementing FMS, which is possible with intensive training of a big number Village Agents in clusters on subsequent days in the week - to be repeated by the Village Agents on another weekday for new FMS groups.
7. As it has been shown in this research farmers will benefit by being members of both FFS and FMS groups – and maybe even VSLAs - at the same time. An initiative should be taken by FCU together with an ADRA office, to identify a project, where a new FFS/FMS approach is tested over a whole season. It will in the agricultural season be designed more or less as an FFS activity, but in the lean season the same farmers will be an FMS group. In practice, such a pilot project could be done in an existing or planned project, which already practice one of the two approaches.
8. ADRA Sudan should play a key role in promoting best practices of FFS and FMS in Sudan to various NGO, donors and other forums
9. ADRA Sudan should actively join FMS coordination Unit by appointing an FMS contact person, who will be link to FCU.
10. ADRA Denmark and ADRA International should promote FFS and FMS in all livelihood projects/programmes, even in contexts, which are labelled for emergency or humanitarian interventions as long as the beneficiaries are smallholder farmers.
11. A realistic calculation of costs efficiency of FMS training at the three TOF levels – TOF-1, TOF-2 and TOF-3 should be calculated as a useful guide for planners of future FMS projects. Task FMS Coordination Unit
12. Climate Smart Agriculture should be adopted in all ADRA's future interventions in Sudan dealing with farmers. And the concept Climate Smart Marketing should be developed by the FMS coordination Unit.

ANNEXES With the Research Instruments



Photo Christian Sørensen: Interview in progress in Bab Noola Village: Manahil Ibrahim, Nosiba Almahi Musa and Amira Ahmed Ali – MoA

Annex 1: Field teams

White Nile

| name | e-mail | Telephone |
|-------------------------|--|------------|
| Raba Sheikhsidin Ahmed | Syman0915902033@gmail.com | 0918166603 |
| Sara Seddiq | <i>does not have an email</i> | 0913321010 |
| Saad Elhadi Ahed Elnour | Saadnair@gmail.com | 0911165615 |
| Ahmed Mamoon Hassan Ali | Ahmedmamoon@yahoo.com | 0915099528 |
| Amira Ahmed Ali | 3amiraahmad@gmail.com | 092803336 |
| Sumia Abbaker Ahmed | littlesky@hotmail.com | 0913698885 |
| Abdalla Nasir Elkhalifa | Nasiraqri59@gmail.com | 0918091057 |
| Zeinab | zeinab123@gmail.com | 0919484984 |
| Nafiasa Ahmed Mohamod | nafisam@102gmail.com | 0905838682 |

West Darfur

| Name | e-mail | Telephone |
|-----------------------|--|---------------|
| Ali Gibreel Yahia | ali.suleiman@adrasudan.org | +249924481788 |
| Darelsalam Abdelkarim | darosher2@gmail.com | +249923322562 |
| Ahmed Ishag Ismail | ahmedishag668@gmail.com | +249926072730 |
| Adam Abakora Altoum | adamabbakora@gmail.com | +249122200723 |







Annex 2: Livelihood self-perception exercise







1. The whole group is together on a suitable place in the village. The exercise has the following elements:
2. Volunteers introduce themselves and the purpose of the visit. The group will give a short introduction of the group history and composition
3. Volunteers introduce the exercise (B) by showing 3. 'mood-meter' cardboards with 5 issues each with 5 graduated statements related to the household, gender, production, market and other livelihood components
4. After the presentation the farmers themselves try to fill the three charts. They are told, that when they do this in the village, illiterate members must be helped by a literate member. They are asked to fill the forms as their livelihood situation was **two years ago**.
5. The charts are collected, and the group now meets again with a discussion about the exercise, questions etc. Then the group is asked to identify a person, who would represent them well for an individual interview, which will take place after the group meetings.
6. There is also a call for members willing to do the self-monitoring exercise, which they may remember from their training (otherwise it is repeated by showing a cardboard version with the elements to fill).
7. The group will now repeat the livelihood self-assessment on a new chart, but with scores on how their livelihood situation is **now**.
8. The charts are collected, and the volunteers to do self-monitoring are now asked to fill two sheets – one for the situation two years ago, and one for the present situation. Meanwhile the two volunteers disappear with the member to do an individual interview. And other two volunteers are looking at the collected livelihood sheets and aggregate them in three cardboard charts with the scores two years ago with red markers and the present scores with green markers.
9. The members left will be shown the results of their livelihood scores and are asked to comment on them and verify the result.
10. The meeting ends when the self-monitoring templates have been filled and collected. The villagers are thanked for their participation and congratulated by their results.
11. In the late afternoon all the volunteers are meeting together in ADRA's office where they day is discussed. They will afterwards translate all self-monitoring sheets to English.







Livelihood Self-Perception

Date/Year:

Village:

| Self-Perception of your Livelihood in relation to: | Zero  | One  | Two  | Three  | Four  | Five  |
|---|---|--|--|--|---|---|
| 1, My knowledge about the market | Almost nothing | A little bit | Some knowledge | Medium knowledge | Good knowledge | A lot of knowledge |
| 2. How much I am saving regularly | Nothing | A little bit | Sometimes | Medium | A good amount | Very much |
| 3. My trips to towns or market towns to enquire about prices | Never | Less than once a year | Less than once a year | Two-three times a year | Every second month | Almost every week |
| 4. My participation in collective marketing | Never | Once | Two-three times | Several times | Very often | Always |
| 5. How often I <u>grade</u> or <u>pack</u> my crop before sales | Never | Once | Two-three times | Several times | Very often | Always |

| Self-Perception of your Livelihood in relation to: | Zero  | One  | Two  | Three  | Four  | Five  |
|--|---|--|--|---|---|---|
| 1, My Household's situation in general | Very bad | Not good | Average | Quite OK | Good | Very Good |
| 2. The health of my family members | Very bad | Not good | Average | Quite OK | Good | Very Good |
| 3. My own self confidence | Very low | Not high | Average | Quite OK | High | Very High |
| 4. My general happiness with my life conditions | Very low | Not high | Average | Quite OK | High | Very High |
| 5. Degree of male and female HH members sharing in the management of our Family Farm's economy | Very low | Not high | Average | Quite OK | High | Very High |

| Self-Perception of your Livelihood in relation to: | Zero  | One  | Two  | Three  | Four  | Five  |
|--|--|---|---|--|--|--|
| 1. The volume of my agricultural production | Very bad | Not good | Average | Quite OK | Good | Very Good |
| 2. My knowledge about traditional agriculture | Very bad | Not good | Average | Quite OK | Good | Very Good |
| 3. My knowledge about new agricultural technologies and methods | Very low | Not high | Average | Quite OK | High | Very High |
| 4. The effect of climate change on my agricultural production | Very low | Not high | Average | Quite OK | High | Very High |
| 5. Degree of male and female HH members sharing decision on what to grow | Very low | Not high | Average | Quite OK | High | Very High |

Charts in Arabic used for exercises



التاريخ -----

الاسم -----

القريه -----

| تصورك لسبل كسب العيش | صفر | واحد | اثنان | ثلاثة | اربعة | خمسة |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| معلوماتك عن السوق | لاشيء | معلومات بسيطة | قليلا | متوسطه | جيدة | كثيره |
| كم تدخر من دخلك | لاشيء | بسيط | بعض الاحيان | متوسط | كميه جيده | كثير جدا |
| حركتك الى اسواق المدن لمعرفة الاسعار | لا حركه | مره واحده فى العام | | ثلاثة - اربعة مرات فى العام | كل شهر | عموما ضعيف جدا |
| التسوق الجماعى | لم اجرّب | احيانا | | عديد المرات | كثيرا | دائما |
| تعيّنة وتدرّج المحصول | لم يتم | مره واحده | مرتين او ثلاثة | مرات متعدده | كثيرا | دائما |
| | | | | | | |

تصورك لسبل كسب العيش (ب)

| تصورك لسبل كسب العيش | صفر  | واحد د  | اثنان  | ثلاثة  | اربعه  | خمسه  |
|--|--|---|--|--|--|---|
| حالة الاسره | سيئه جدا | سيئه | متوسه | مقبوله | جيده | جيده جدا |
| | | | | | | |
| الحاله الصحيه للاسره | سيئه جدا | سيئه | متوسطه | مقبوله | عاليه | ممتازة |
| | | | | | | |
| التامين الشخصى | منخفض جدا | ضعيف | متوسط | مقبول | عالي | عالي جدا |
| | | | | | | |
| ارتياحى للوضع العام | منخفض جدا | ضعيف | متوسط | مقبول | عالي | عالي جدا |
| | | | | | | |
| درجة مشاركة الرجل والمرءه فى ادارة شان الاسره والقرارات الاقتصاديه والزراعيه | منخفضه جدا | ضعيفه | متوسطه | مقبوله | عاليه | عاليه جدا |
| | | | | | | |

تصورك لسبل كسب العيش (ج)

| خمسه  | اربعه  | ثلاثه  | اثنان  | واحد  | صفر  | |
|---|--|--|--|---|--|--|
| جيد جدا | جيد | مقبول | متوسط | غير جيد | سيئ جدا | حجم لانتاج الزراعي للمزارع |
| | | | | | | |
| عاليه جدا | عاليه | مقبوله | متوسطه | غير جيده | سيئه جدا | معلومات عن الزراعه التقليديه |
| | | | | | | |
| عاليه جدا | عاليه | مقبوله | متوسطه | غير جيده | منخفضه جدا | معلوماتك عن التقانات الزراعيه الحديثه |
| | | | | | | |
| عالي جدا | عالي | مقبول | متوسط | ضعيف | منخفض جدا | اثر التغيرات المناخيه على الانتاج الزراعي |
| | | | | | | |
| عاليه جدا | عاليه | مقبوله | متوسطه | ضعيفه | منخفضه جدا | درجة المشاركه بين الرجل والمرءه في تجديد المحصول الممراد زراعته |
| | | | | | | |

Annex 3: Result of the Self-Monitoring Exercise

| Crop | Sorghum | Area planted in (fedhan) | | Quantity harvested in (50kg bags) | | Total Number of bags by 50kg per fedhan | | Yield difference in 50kg bags | % Increase in yield |
|------|-----------------|--------------------------|------|-----------------------------------|------|---|------|-------------------------------|---------------------|
| S/n | Name | 2019 | 2022 | 2019 | 2022 | 2019 | 2022 | | |
| 1 | Maha-Al | 2 | 1 | 10 | 16 | 5.0 | 16.0 | 11.0 | 220.0 |
| 2 | Amal-E | 1 | 2 | 2 | 8 | 2.0 | 4.0 | 2.0 | 100.0 |
| 3 | Adaradib vg | 2 | 1 | 3 | 2 | 1.5 | 2.0 | 0.5 | 33.3 |
| 4 | Haw Mosa | 8 | 12 | 3 | 12 | 0.4 | 1.0 | 0.6 | 166.7 |
| 5 | Adaradib vg | 1 | 10 | 10 | 20 | 10.0 | 2.0 | -8.0 | -80.0 |
| 6 | Adaradib vg | 1 | 1 | 1 | 3 | 1.0 | 3.0 | 2.0 | 200.0 |
| 7 | Abdella saleh | 20 | 10 | 7 | 23 | 0.4 | 2.3 | 2.0 | 557.1 |
| 8 | Alebada Alb | 4 | 4 | 3 | 12 | 0.8 | 3.0 | 2.3 | 300.0 |
| 9 | Tril Atrg All | 5 | 4 | 40 | 30 | 8.0 | 7.5 | -0.5 | -6.3 |
| 10 | Adm-A | 6 | 25 | 22 | 40 | 3.7 | 1.6 | -2.1 | -56.4 |
| 11 | Falma | 10 | 5 | 37 | 6 | 3.7 | 1.2 | -2.5 | -67.6 |
| 12 | Rogra-H | 1.5 | 3 | 10 | 19 | 6.7 | 6.3 | -0.3 | -5.0 |
| 13 | Amna-Mh | 3 | 3 | 45 | 45 | 15.0 | 15.0 | 0.0 | 0.0 |
| 14 | Daralslam | 3.5 | 3 | 35 | 35 | 10.0 | 11.7 | 1.7 | 16.7 |
| 15 | Ammmod-A | 5 | 5 | 15 | 15 | 3.0 | 3.0 | 0.0 | 0.0 |
| 16 | Sifera vg | 4 | 4 | 9 | 10 | 2.3 | 2.5 | 0.3 | 11.1 |
| 17 | Sifera vg | 4 | 3 | 40 | 25 | 10.0 | 8.3 | -1.7 | -16.7 |
| 18 | Almakhalif vg | 3 | 4 | 14 | 6 | 4.7 | 1.5 | -3.2 | -67.9 |
| 19 | Almakhalif vg | 10 | 10 | 30 | 30 | 3.0 | 3.0 | 0.0 | 0.0 |
| 20 | Almakhalif vg | 2.5 | 2.5 | 14 | 4 | 5.6 | 1.6 | -4.0 | -71.4 |
| 21 | Safaa Eisa | 3 | 5 | 5 | 7 | 1.7 | 1.4 | -0.3 | -16.0 |
| 22 | Fawzea | 4 | 4 | 17 | 24 | 4.3 | 6.0 | 1.8 | 41.2 |
| 23 | Alhassan Alzain | 5 | 3 | 6 | 0 | 1.2 | 0.0 | -1.2 | -100.0 |
| 24 | Sharkhlune | 3.5 | 3.5 | 25 | 15 | 7.1 | 4.3 | -2.9 | -40.0 |
| 25 | Raunda yousif | 2 | 2 | 18 | 27 | 9.0 | 13.5 | 4.5 | 50.0 |
| 26 | Sedaig humeda | 2 | 3 | 8 | 27 | 4.0 | 9.0 | 5.0 | 125.0 |
| 27 | Alsaid humnda | 4 | 3 | 22 | 10 | 5.5 | 3.3 | -2.2 | -39.4 |
| 28 | Amanh -Abas | 3.5 | 6 | 15 | 25 | 4.3 | 4.2 | -0.1 | -2.8 |
| 29 | Adm Ahmad | 3.5 | 3.5 | 10.5 | 47 | 3.0 | 13.4 | 10.4 | 347.6 |
| 30 | Mah Ali | 2 | 6 | 15 | 25 | 7.5 | 4.2 | -3.3 | -44.4 |
| 31 | Abed Alshakh | 1 | 2 | 7 | 14 | 7.0 | 7.0 | 0.0 | 0.0 |
| 32 | Roga Alnor | 10 | 10 | 20 | 20 | 2.0 | 2.0 | 0.0 | 0.0 |
| 33 | Alshakh ali | 8 | 10 | 15 | 15 | 1.9 | 1.5 | -0.4 | -20.0 |
| 34 | Sara Alkhatam | 10 | 20 | 10 | 30 | 1.0 | 1.5 | 0.5 | 50.0 |
| 35 | Mohamad | 10 | 10 | 20 | 10 | 2.0 | 1.0 | -1.0 | -50.0 |
| 36 | Almakhada | 5 | 5 | 6 | 0 | 1.2 | 0.0 | -1.2 | -100.0 |
| 37 | Plah Adom | 5 | 10 | 10 | 20 | 2.0 | 2.0 | 0.0 | 0.0 |
| 38 | Yagob | 10 | 10 | 15 | 12 | 1.5 | 1.2 | -0.3 | -20.0 |
| | | | | | | | | | 1415.0 |
| | | | | | | Percent Increase in Yield | | | 37.2 |

الآلية التقييمية

الزيتون للمستفيد من مدارس اسواق المزارعين في السودان (د)

| اسم المزارع | | اسم القرية | | | | | |
|-------------------------|--------------------------|-----------------------------|-------------------------|--------------------------|--------------------------|------------------------------------|--|
| التاريخ | | اسم مدرسة سوق المزارعين | | | | | |
| المحصول والموسم الزراعي | المساحة المزروعة بالفدان | محصول واحد او اكثر من محصول | الكمية المحصودة بالجوال | الكمية التي بيعت بالكيلو | سعر الوحدة - جنيه سوداني | القيم الكلية للمحصول - جنيه سوداني | |
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ملاحظات -----

Annex 4: In-depth Interviews

Below find four interviews of four Village Agents from Darfur. Conducted 23rd March 2022. There stories are cases of strong community focus, since they did not really earn a living on their contribution in a formal sense.

a. Zeinab Abdelrahman Ibrahim

'I was born 1973 in Dorti village just outside Geneina. I had 2 sisters and 5 brothers, one of whom was disabled. I went to Government primary school for 7 years and then 3 years in intermediary schools in Geneina. I had to stop schooling because my family had money problems. I was otherwise planning to go to El Fasher for secondary school. Instead, I joined a koran-school in Dorti for five years.

I got engaged when I was 17 years old. It was my parents' choice, but I did not like the man, so I divorced in the court.

I was trained by a neighbor in sewing. This was my own initiative. I was still staying at home. My mother taught me baking. I earned a little money. My family was poor, so I worked in the farm. My job was mainly to make and bring food to the people working in the farm.

In 1990 I got married with a man of my own choice. He owned 4 fedhan, so we did farming together: groundnuts, millet, ocre by hoe cultivation. One season we only got 5 qora (size of a bucket) millet. That was in 1994.

We moved to Arefa in 1999, where we got one fedhan and succeeded to harvest 2 to 4 sacks millet a season. I got 10 children from 1992 onwards. 7 died by birth. Only three survived: a boy born 1992, a girl 1995 and a boy 2005.'

The tribal conflict started 2003 and has lasted until now (2022). We had to leave Arefa in 2004 because of the conflict. I lost two brothers and an uncle in the conflict. I was shot in the arm myself and for that reason had a miscarriage. In 2020 I was trained by ADRA on how to do farming with very small amount of rain. I got seed from ADRA and worked on my farm and on a group farm. We organized our own FFS group and also made a VSLA trained by Adam as facilitator. I was chairman of the VSLA and soon became a Village Agent myself.

In 2021 I have started ten VSLA groups in Dorti, Oul Gewa and Gargar. I did this because I like to cooperate with others, I got new social connections. I did not get any payment for this work, but sometimes sugar, rice or macaroni from ADRA. When I had to go out from my village and train groups in another village, ADRA gave me transport and food and an incentive of SDG 3,000 (Later raised to SDG 5,000). I trained my VSLA group here in Dorti in making handicrafts.

I have also been trained in FFS by Dar Elsalaam and Adam. In 2020 I trained an FFS group in Dorti, members were the same as those in the VSLA group. In total I trained 3 FFS groups. And I also trained 3 FMS groups. This was over 12 weeks with one session per week. Her Dorti group was trained in 2021.'

Asked about what benefit she gets from being in an FMS group, Zainab answered that she has got more market knowledge. She studies prices weekly. She contacts traders to get the information. She said: 'We get a better price if we add value to the crops, such as grading. We always sell directly the end-consumer. Mostly I sell independently. But we are also sometimes selling together. We could be 5 persons taking our crops to the market together. We rent a Tuk Tuk or a horse cart and load our bags. Two of us go along the market and sell the crops. They bring back the money, which we share.'

She feels she has become more confident in the market. She avoids middlemen (who actually most often are women!). 'They give us low prices. They want power. Now we have confidence. We know everything. We make relationships with the traders, we can trust'.

Zainab's two children now are studying at the University in Engeneina, while the third child is presently doing the entrance test. Her husband is sick, with back problems, he got when he was sent to South Sudan as a soldier. She is the breadwinner of the family. Now that SCEED has ended, she will do agriculture on 7 fedhan, she has acquired North of Dorti. Unfortunately, there is new conflict in the area, and last year her donkey was stolen.

ADRA has been important for her life. Her activities as Village Agent depend on the incentives, she gets from ADRA. Without these incentives she would not be able to do VA work away from Dorti. The VSLA, she is member of, is in its second cycle. The share-out will be made at the end of Ramadan, and she plans to buy a new donkey for her savings.

Asked about who in her household makes decisions, she said that she does, and her husband will agree. They share their economy. *'He is not taking the money!'*

b. Alsadiq Ibrahim Isack

Alsadiq was born in 1987 in the village, Agoura. There were 4 boys and 4 girls in his family. He was number six. He first went to a village school, followed by primary school in Geneina from grade 5 to 8. He then went to secondary school in Geneina and finally studied Economics at Geneina University. He graduated in 2015.

He was assigned to be a schoolteacher by the Department of Education, and he joined the primary school in his village Agoura. But he did not like the job. His dream was to take a Masters' degree. But that did not materialize.

Alsadiq comes from a rich family. They have 100 fedhan, they have a diesel pump, donkeys and a horse. He stayed in the village and took part in farming. They grew tomatoes with irrigation, watermelon, sorghum and millet, sesame and ocre. In 2017 he got married and started living in his own house.

In 2016 he had already learned about FFS in a training by ADRA with Dar Elsalaam as group leader. He took FFS to Agoura, where they made a demonstration plot. He had by then been in a one-week training in 'field management'. He formed the FFS group in Agoura and became the trainer. He had then also been involved in starting the first VSLA group in Agoura with 25 members.

Alsadiq was one of the 15 Village Agents, that had a meeting in ADRA's office and had discussions with the MOA in 2017.

At that time, 2018, he was chosen by ADRA to go to White Nile and be trained as a FFS Master trainer (training by Amb. Benjamin Mweri from Kenya). ADRA also sent Dar Elsalaam and Adam Kalifa to this training). The training lasted three months. When he returned to Agoura, he continued facilitation his own FFS.

In January 2019 he got the opportunity to travel with Dar Elsalaam to Ethiopia, where ADRA had organised the first FMS master training. He did not know much about FMS at that time. The training lasted 2 weeks and was conducted by Christian from Denmark and Susan from Zimbabwe. As Alsadiq's English was poor, he did say a lot during this training, but he understood the subjects, because the methods were very interactive.

Back in Agoura he started the first FMS group. And after this he started FMS up in 10 other villages in 2019. He did that by taking 2 persons from each village through a two-weeks training as a copy of the Addis Ababa-training. After the training, the two persons, who had been trained, returned to their villages and formed FMS groups, which they then trained themselves. He also started to function as a 'VSLA supervisor' for 7 VSLAs in Agoura, 5 in Amdejed, and 5 in Kiriky. He followed up on the groups weekly. They could have problems with group dynamics, the responsibilities of the group leaders. He would urge the members to help each other.

Alsadiq said '*I was always busy!*'.

According to the ADRA staff he was very resourceful and well organized. He did not receive any incentives from ADRA, even when he went to other villages. He reached them by horse and also did not get any gifts or payment in-kind. But his horse was taken care of, while he held meetings. It got water and food.

Alsadiq felt that he could become an ADRA staff, but also have other dreams. He wants to study at Master level, maybe travel to other countries. He wants to improve his English. He also wants to develop his farm and maybe be a businessman, who would supply vegetables and other agricultural products to Khartoum, Chad and Blue Nile. He is now 33 years old, married and has become a father.

c. Abubaker Mohammed Ahmed Jimaizi

Abubaker was born in 1996 in Elshaba village. He is 26 years old and the first born in a family of five, (two brothers and three Sisters). His parents are both farmers who grow both field and vegetable crops. They also have some livestock.

In 2003 he was enrolled into grade one and started going to school, this was a joyous thing for him because he used to admire his friends when going to school. This joy, however, did not last long. In 2004 while riding his father's horse, Abubaker fell off and broke his left arm, and he did not manage to ride his horse after falling, so he had to walk back a long-distance home. This accident kept him out of school for more than a month. When he got better, he returned to school and learnt up to grade six. He then went to the next village where he did his grade seven and eight.

While in grade eight Abubaker faced another setback, which saw him out of school till today. As the eldest son he had many other duties to do after school and during weekends. This time it was not a horse. but a snake bite. This all happened when he had gone to fetch water from the river, it was the rain season. and the grass was green, as he walked through the grass, he felt some bite on his right foot. He told his friends, who came and realised it was a snake bite, they took him home, where he was given some traditional medicine, this kept him out of school for a long time.

When he was ready to get back to school in 2014, things were not well for his family, and his father had to go out in search of work to provide for his family. So, he left for the capital Khartoum. Abubaker remained helping his mother to take care of his siblings. In 2016 his father came back from Khartoum, where he had gone to work. This was a happy moment for the family. But not long after, there were clashes in the village, and sadly his father was shot on his foot and was taken back to Khartoum for treatment. He only returned after three years.

In 2019 the Sudanese Red Crescent visited his village and trained some community members in First Aid. Abubaker was one of the members trained. During this same period ADRA also visited the village to talk about their interventions. They talked about FFS, and he was interested and wanted to be trained. But the Staff advised him, that he could not join, because it was almost rainy season. and he lived across the stream, so he could not manage to attend sessions. However, he insisted and joined. He attended all sessions and was given an award as the best student. He was appointed to be a village agent and was also trained in FMS and VSLA.

Training and community response

To date Abubaker has trained nine groups, two in FFS, five in FMS and two in VSLA. There is a growing demand for training among community members including those from other villages. ADRA has been on the frontline to facilitate training, if there is demand from the community for some training, the village agent notifies ADRA, and ADRA arranges for the training. If the community to be trained. is in another locality far from where the village agent

lives, then he is given money for transport and some incentive by ADRA to do the training. Otherwise, trainings are done for free in the nearby localities.

Asked if he would continue responding to training demands after project life, Abubaker said he would continue to offer the services as usual to the nearby villages. But for those faraway, they would have to contribute some incentive to cover his travel costs.

Life after partnering with ADRA

Together with other members of the community they never knew, how the market operated, before they were trained. Many time they grew their crops and took them to the market, where they were received by middlemen. They never thought, they could go beyond this level, because they didn't realise that these were middlemen.

After training they did their market visits and they realised that there were many actors, the second time they started talking to some traders and even got their mobile numbers. The traders gave them some information about the prices and quality. Now they are able to communicate with the buyers, before they take the produce to the market. Sometimes they have to put together their produce to meet the buyer's demands. This has also shaped the way they plan their cropping.

VSLAs have also impacted the communities positively because now the community members are able to save money for their inputs and also able to borrow if they have an emergency. Now there are two groups in his village doing savings and many more, that want to be trained.

| | | Individual interview with Mariam Ibrahim , Age: 21, Position: Village Agent, Village: Umkalol. Major life event (good & bad) |
|------------------|-------------|---|
| Good /bad | Year | Description |
| Bad | 2003 | She was only a few years old when the conflict in Darfur was initiated causing her village to move to an IDP camp about 120km away (she explains it as a memory but might not be true due to her age) |
| Good | 2004 | Moved back to her village in 2004 when the situation in the area improved |
| Good/ bad | 2005 - 06 | Her father went to Libya to work. Bad: reminder the time as being painful as she missed her father a lot and the family was struggling and relatively unsuccessful in farming the land without support from her father. In the first period after her father's departure, he could not find work and was not able to send money and Mariam had to leave school because not being able to pay school fee. Good: after a while her father began sending money and her family managed to have a decent livelihood relatively to others in the village and was able to pay school fees, etc through her father's remittance |
| Good | 2010-2015 | Father came back to Darfur, and she went to high school |
| Bad | 2014 | Tribal conflicts caused big loss of animals. Her father decided to drop animal production and focus on crop production on family land 120 km from her village. Her father lives almost permanently there but visit the family every second month. Her family manage to keep the family land in her village productive |
| Good | 2015-17 | She went to Khartoum and went to midwife school |
| Bad | 2017 | Got married but it was not a happy marriage from the very beginning as she did not like the man her father had found her. After the marriage they kept living in their own villages and have never lived |

| | | |
|--|-----------|--|
| | | <p>together. Got divorced in 2022. Despite being disappointed, her family has supported her decision from the beginning.</p> <p>She wanted to go to university but because of the marriage – they could not afford the rent and staying with distant relatives was not an option anymore now that she was married.</p> <p>When returning to her village as educated midwife, she was struggling to find work. She some volunteer work once a week remunerated with a few incentives. In 2020 she changed to another local health clinic where there also only provide her with work one day per week but the incentives are slightly better.</p> |
| | 2017-2022 | No major events |

Annex 5: Form used for individual interviews

Helpful questions for individual interviews with farmers (*in random order!*)

موجهات عامه للمساعدة فى طرح الاسئله على المزارعين

Proding should be used with each question: what do you mean? Please tell more about this! Etc.

يجب استعمال عبارة ماذا تعنى بهذا الكلام؟

Name of interviewee: – age, gender, village

اسم المزارع ----- العمر ----- اسم القرية-----

Name of interviewers:

1. What do you know about how a market functions?

ماذا

تعلم عن الية عمل السوق؟ كيف يعمل؟

2. How do you succeed to save money? (where is it kept?)

كيف تتجح فى ادخار مالك؟ اين يتم وضع المال الادخار؟

3. How often do you do research in the market about prices, quantities etc. about crops you grow?

كيف يتم تعرفك على الاسعار فى السوق؟ والكميات المعروضه للبيع؟ وتوفر المحصول اللذى تريد بيعه فى السوق؟ وكيف تبحث عن السعر الافضل لمحصولك؟

4. Can you tell of an occasion when you have done collective marketing!

هل حدث قمت بتسويق محصولك جماعيا مع اخرين؟ اخبرنى كيف تم ذلك؟

5. What are you doing to your crops before taking them to market, so that they look good and attractive?

ماذا تفعل لمحصولك قبل عرضه للبيع ليكونى وضع جيد وجذاب؟

6. How is the general situation of your household?

كيف حال الاسره عموما؟ وكيف يتم التعامل مهم عند اتخاذ القرارات المهمه؟

7. What about the health situation for all members – how is it?

صحيه كيف حال الصحه العامه للاسره؟ هل الجميع بخير؟ لايعانون من اى مشاكت؟

8. Yourself – how is you confidence as a person?

هل انت تحت بالراحه؟ وهل لديك ضمان بحياة طبيبه وسعيده؟

9. How is your general happiness with life conditions?

كيف يتم اتخاذ القرارات الزراعيه وتحديد المحصول اللذى ترغب فى زراعته؟ هل تتخذ القرارات لوحدهك ام تقوم بشاركة افراد الاسره؟

10. What about decisions of what to plant in your farm – are they shared with your spouse or are you taking all the decisions yourself?

فى ادارتك للمزرعه وكذلك فى القرارات الاقتصاديه هل تتم مشاركة المراءه وافراد الاسره ومشاركتهم فى السؤليات؟

11. When it come to the economy how do male and female members share the responsibility with each other of the management of your family farm?

هل تشارك المراءه فى اتخاذ القرارات والمسؤليات وادرة المزرعه؟

12. Are you well aware about traditional agriculture – and what about new agricultural technology and methods?

هل لديك فكره عن الزراعه التقليديه؟ وفكره عن الاساليب الزراعه بالتقانات الحديثه؟

Ask if you may take a photo and if you accept us to use it in the report

هل يمكن

Background Annexes on the evaluation on FFS and FMS in Sudan – carried out during March 2022

1. Detailed account on the history of FFS and FMS in White Nile
2. Detailed Account of FFS and FMS history in West Darfur
3. Detailed Account of the Field Work in West Darfur and White Nile

1: Detailed account on the history of FFS and FMS in White Nile

FFS History in TMP

In connection with the preparation of a project in White Nile in 2017 to be funded by the European Union visits were made by ADRA staff to Kosti. Here the MoA Director of Extension was asked about the experience with FFS in the State. He said that they had a long history with FFS, but were only able to establish one FFS in each of its four localities annually.

The visiting ADRA staff asked for permission to meet with one of the FFS in either Al Salaam or Al Jebelain. On this tour they saw a field, which had been used as a demonstration plot for implementation of the Government's package to the farmers for sorghum production – seed, tractor ploughing etc. The owner of the plot was a local politician, who did not live in the village. Asked how farmers will benefit from this plot the answer was that they *'could observe and learn from watching this demonstration plot'*

After this visit it was agreed with the Director that this was probably closer to the demonstration farm methodology of MoA inputs than a Farmer Field School. He said that there were not extension officers enough to reach big numbers of FFS in his office. He had no experience with 'farmer-led' FFS implementation. As a conclusion of this discussion, an FFS training with the focus on facilitation skills was organized in August 2017. ADRA and MoA jointly hosted this training workshop for 30 MoA staff from many different departments. This served to raise awareness and support for the FFS concept within the Ministry and the importance of 'facilitating' instead of 'lecturing'.

The project, which started late 2017 – and was called TMP, collaborated with the MoA Extension Office to undertake a small winter season pilot of six FFS groups with four facilitators from December-March 2017-8. In April 2018 a follow-up facilitator training workshop was organized for 30 field-based MoA officers. Facilitated by an FFS Master trainer from the Philippines this was a positive experience for the team. TMP capitalized on the energy generated during the workshop and launched directly into a community mobilization campaign with 20 field officers visiting dozens of communities over a two-week period. Up to thirty groups expressed interest in participating in a "Summer" irrigated vegetable FFS season that we planned to launch in early May.

The first week of May 2018, TMP hosted an Integrated Pest Management and Production (IPM) technical workshop for the FFS facilitators with visiting presenters from the University of Gezira and White Nile Agricultural Research Corporation. Directly after the workshop interested farmer groups were mobilized for the 'Summer' season.

Unfortunately, by the second week of May 2018, the national fuel crisis had become very acute, and farmers were not able to obtain fuel for preparing land or for irrigation pumps. All the previously

identified groups opted to skip the summer cash-crop season and wait for the rains. By mid-May, neither ADRA nor the Ministry of Agriculture had fuel to operate vehicles. It would be July 2018 before there was adequate fuel to continue FFS activities.

During this time there was also a change in extension department leadership and a reduction of extension officers allocated to FFS activities, decreasing from 30, who had participated in both the previous facilitator training and IPM workshop, to only **16**, who would be available for field service. Focus was directed for these 16, whose capacity would be built before scaling-up outreach.

An FFS Master training by Amb. Benjamin Mweri – an experienced Kenyan FFS Master trainer - took place of **23 MoA staff** (11 women and 12 men). These MoA staff members underwent a season-long masters training for FFS. This training was divided into three sessions. Session one took place in November 2018 for two weeks; session two happened in January 2019 for three weeks; and the last session was conducted in March 2019 for another three weeks.

By end of the project's second year (2018-19) a total of **83 MoA staff** members had been trained in FFS (41 women and 42 men). With enough FFS facilitators from this pool it was now possible to scale up the training of more farmers. In July 2019, FFS activities were resumed. And follow-up mobilization to form more FFS groups was conducted for the Autumn crop cycle. The project was able to support the MoA with ongoing FFS activities of training 500 farmers in **19 farmer groups** (279 men, 221 women) serviced by the **16 facilitators**.

The season progressed well. A strong response from female farmers was noticed. The first winter FFS cycle had only male participants as traditionally irrigated farming in White Nile State is primarily seen as a male-dominated activity. Of the 19 active groups, 5 were women-only with the remaining 14 being mixed gender. In conjunction with the upcoming winter crop-cycle a season-long *Master Trainer Training* course was conducted for the current group of 16 MoA. It means that there now was capacity to increase the number of FFSs.

The end-result of these early experiences was very impressive seen on the background of the difficult start. By September 2021 there was a total of **5,273 farmers** (1,332 men, and 3,941 women), who had been trained on the FFS approach. In the process, **159 FFS groups** were established with number per group ranging from 15 to 30 members coming from **52 villages** in the localities of Al Jebelain and Al Salaam.

The project goal was achieved in the sense that farmers had adopted methods to improve agricultural productivity with the crops, which were dealt with in the FFS groups. But initially FFS was also seen as a way to organize farmers, so that they would grow stronger in cooperative power. This has happened in many countries, where an FFS is a beginning to kickstart other farmer initiatives. The interviews undertaken in connection with the present assessment indicated that most FFS groups just existed during the seasons of FFS activity, not being a permanent farmer group. The reason for this was probably the technical nature of the way it was implemented by MOA extension staff. The innovation of Village Agents was not used to foster more FFS groups to be established and continue with season long experimentation³¹.

FMS History in TMP

³¹ The notion of a 'Farmer Facilitator' is well known in FFS literature and praxis. Actually, there is a strong argument about the use trained Farmer Facilitators in-stead of MoA Extension staff for supporting the FFS group through the various stages of experimental learning. This idea was also floated in TMP by the visiting FFS Master Trainers, but it did not materialize. At one stage TMP was in contact with the [Eastern Africa Field Schools Support](#) in Uganda

Preparation for FMS activities began in December 2017 (in Darfur) with a week-long training workshop (see the 'Darfur experience' in next session of this report), which TMP project staff and two MoA Extension staff from White Nile took part were able to attend this training. The intention was to start two pilot FMS groups during the winter season in White Nile. Unfortunately, this did not materialise.

In addition to the staff and partners trained in 2017 in Darfur, a new – more comprehensive FMS training was organized in Addis Ababa in 2019. TMP sent four staff and project partners to this training. SAHEWA in Darfur also sent two participants. This was the first FMS Master training. It lasted two full weeks. A newly revised FMS facilitator manual was used for this training with more subjects and more practical exercises. Two of TMPs senior staff, who attended this training left the project shortly after the training. A senior staff from FPDO³² and a staff of the Agricultural Research Centre in White Nile were instead tasked to introduce and develop FMS in TMP together with one of the SAHWA staff and a Village Agent from Darfur.

The FMS idea had already been introduced in White Nile earlier at a **stakeholder meeting** just like in West Darfur. Here various Government staff were present together with NGOs, humanitarian agencies and others. ADRA Sudan suggested that FMS could be tested as a pilot project in White Nile. The immediate response by the persons present was skepticism. An aged male farmer stood up and said that farmers were quite happy with the advice on prices by Government. A senior MoA representative also expressed doubt about this new approach. ADRA then accepted the comments and said that the offer of making an FMS pilot project would be withdrawn. At this stage the director of the Agricultural Research Center found a compromise: *'You can do the pilot project with the female farmers!'* So, after a long discussion this was agreed by the stakeholders, who would like to be informed about the outcome of the pilot project.

FMS was not as FFS a well-known and tried approach, when it was included in the TMP design. It was totally new and only tried for 1-2 years before introduction in Sudan. The initial assumption was that FMS training would be taken up by existing groups, which could actually have been FFS groups. But only few of the FFS groups in White Nile became permanent farmer groups despite the potential. Initially the implementation of FMS was slower than with FFS. Since this was a new approach, it started with **2 FMS** groups with **51 farmers** (2 men and 49 women), which would serve as a pilot project in 2019.

In connection with the field work of this assignment four FMS facilitators were briefly interviewed about their work. They have had from 7 to 14 days of training. One of them had been engaged in Village Agent facilitation over one weekday for 13 weeks. After training they did not undertake any monitoring activities. The reason would probably be that they were all using the 2019 FMS Manual, which has not included the rather elaborate duties of FMS 'facilitators to monitor the groups they had trained.

The Village Agent in TMP

But FMS became a stunning success in TMP, and it was adopted by the women. Almost 7,000 farmers – of them 5,193 were women – were trained in **213 FMS** groups. The key to this success was the introduction of the **Village Agent** – a term borrowed from VSLA and practiced in some other ADRA projects in Sudan – in Darfur and Blue Nile.

³² Sudanese NGO Friends of Peace and Development Organization

In February 2020 a two-week FMS training was carried out with 31 attendees (9 males and 22 females) comprised of 22 agriculture extensionists from the MoA, 1 from FPDO, 3 farmers, and 5 project staff members. This facilitator training was conducted by three of the FMS master trainers, who had been trained in Addis Ababa in 2019: 1 from ARC, 1 from SAHEWA and 1 from FPDO. Upon completion of this training, 8 MoA staff were selected from the pool of the 22 FMS facilitators from the MoA to serve as field facilitators.

These 8 FMS facilitators trained a total of **178 village agents** or farmer facilitators on FMS approach. Their job was to train the members of their respective newly formed FMS groups. This was done in two batches - the first batch 112 FMS groups were trained by the Village Agents in 2020.

First 8 FMS facilitators (paired into 4 teams) trained the Village Agents in 20 clusters. This meant that each pair of facilitators had 2 (or maybe 3) weekly sessions, every time in a new cluster. And in each cluster group there would be from 7-10 Village Agents. They would on a different weekday train an FMS group with around 25 members. This continued for 13 weeks to cover all the 13 weekly sessions in the FMS manual. In the first batch **112 FMS groups** were trained.

The second batch was carried out in 2021 and was a repeat of the first batch - in 17 clusters though - and resulted in the formation of additional **99 FMS groups**.

So, this training exercise consisted of three TOF levels:

TOF 1: Initial training of **7 Sudanese** in Addis Ababa as FMS Master trainers

TOF 2: Of these three master trainers trained **22 MoA extension Staff**

TOF 3: Of these **8 MoA staff** were selected to train **178 Village Agents**

TOF 4: These 178 Village Agents trained a total of **211 FMS** groups in two batches

Full results were: **213 FMS groups³³ established with 6,439 members (27% men, 73% women)**

These are very impressive figures, which show the huge importance of the work of Village Agents and also the dominance of female participation in the FMS groups.

With the Village Agents still existing there is a potential for further development of FMS in White Nile. The Village Agents were trained by 8 MoA extension staff, who had received special training in FMS and who had themselves been trained of staff from ADRA, FPDO and ARC, who had been trained in Addis Ababa in 2019. The same training material – the FMS 2019 Facilitator Guide in

³³ This figure is based on ADRA reports and verbal interview with three ex-TMP staff. The final TMP report from February 2022 however quotes another number of **372 FMS groups** established. But this number is not backed by other figures in the report, which add up to this number. Although it is repeated in the report – including in its summary page and also repeated in the endline evaluation - it is **not** correct. Much time was used to verify this number, but it was not possible. Two ex-TMP staff, who have been involved with the cluster training of Village Agents in the whole project period except the last three months in 2021 guaranteed that the correct number is 213 FMS groups.

English from that training was used to train Village Agents, who again used what they had learned to train FMS groups of different size from 17 to 30 – mostly women.

These Village Agents could – as is in the case of VSLA – have respond by local demand of other farmer groups and train them to give them useful market literacy. What was needed, was access to improved training methods and materials, especially if it is available in Arabic, and maybe some refresher training of the initial FMS trainers, who kept using what they had learned in 2019. This huge post-TMP potential did not need to be expensive. It could materialize without much external funding but did not happen.

FFS in White Nile did not use Village Agents or Farmer Facilitators, as FAO normally call them. FMS in White Nile is thus closer to VSLA in terms of organization and sustainability, but is closer to FFS in relation to bringing agricultural production and marketing together.

Other Interventions

Most of the other TMP activities took place in the same 52 villages, so some of the farmers were also members of FFS groups, VSLA groups, FMS groups and 40 Women Goat Groups with a total of 800 women. The combination of dual (or more) membership is not rare.

TMP in its four year's existence established **250 VSLA**. Many of these still exist as they have gone through several cycles. The high inflation is a huge challenge, but the members were striving to keep all capital moving through members' loans and making investments. There are also group investments. This was the best way to retain the value of the savings. In Sudan the Islamic banking forbids charging interest on loans. This problem was raised by ADRA with VSL Associates even before the start of TMP. At that time VSLA had spread through Africa, but not in Muslim communities. The suggestion of paying '*Thank you money*' by a loan-taker was implemented in Sudan. All the VALA groups are self-reliant, pay for their stationary expenses themselves as well as for the safe deposit box. Many VSLAs have gone through several cycles – some up to five! In this 4-year project.

Evaluation survey of TMP

The end-evaluation was carried out of TMP in 2021: **Tamkeen Al-Muzarein Project (TMP) – End of project evaluation Report**. The evaluation was carried out by by a consortium of three consultants: Dr. Abdelmoniem Ali Gasmelseed Bakheit (Team Leader), Dr. Salah Abdelgadir Abdelmagid (Team Member) and Dr. Mariam Daifalla Ali Elhello (Team Member).

This evaluation report was written without comparing results to the baseline. Its conclusions are based on interviews of community leaders, Village Agents and on FGDs carried out in 2021.

The general impression of TMP's achievements is very positive: *All-in-all the project has prominently succeeded in effecting a transformation from the traditional to modern farming system throughout the project area in the two localities of Aljebalein and Alsalam. This has been clearly*

manifested in the increase crop yields, production levels, and farmer's incomes through adoption of best practices, direct interaction with agricultural value chain actors and markets.

The evaluation report highlights the success of using the **Farmer Field School** approach. The number of Farmer Field School established has in particular impressed the evaluators:

'The agricultural transformation achieved by TMP in the targeted localities in the project duration of 4 years was only possible for governments to achieve in long term spans of 10 to 15 years... The fact that the project has succeeded in activating the role of agricultural extension that was completely lacked in the project area before the project due to deficiency of government budgets, would emphasize the need to build on this role that proved to be effective in implementing the project agricultural interventions. MOPER³⁴ should manage to allocate enough budget to enable permanent existence of extension worker on site with farmers to deliver agricultural knowledge and technical support'.

The evaluation report also highlights some of the more technical results of the FFS activities: *'the innovative means for controlling pesticides with very cheap costs which have helped largely in increasing productivity and eliminate the risk of chemical use as sources of diseases.'* The report also highlights the success of the project *'in controlling Striga infestation in sorghum as adoption of various experimented practices like growing beans (lubia) as intercrop with sorghum, planting sorghum and lubia in the same holes, growing millet as inhibitor to Striga'.*

The **VSLAs** are also receiving very positive comments – especially *'in helping eliminating dependency of weak groups like women by empowering them.* Regarding the **Village Agents** the report states that *'.. there is no communication reported between the village agents and the government entities concerned with the project's interventions'.* This statement is actually, **not** correct. The Village Agents were as mentioned trained by MoA extension staff in an impressing exercise, which resulted in the establishment of 211 FMS groups. They were actually – prior to thei FMS training – also trained as FFS facilitators, but never functioned as such. Delays in implementation at the end of the last year may be the cause of that.

The evaluation report in general does not mention much about **FMS**, which is maybe a result of the evaluation team not having any prior knowledge about the approach, as opposed to the FFS approach, with which the team appears to be very familiar.

The only mention of FMS in the whole report is he following: *'Upon completion of Farmer Market School approach rollout, it has been observed that farmer beneficiaries now practice the weighing of the quantity of the seeds that they use prior to planting and match it with the available land they have. Prior to this, farmers would just haphazardly estimate the quantity of seeds to be planted. This new practice of weighing seeds resulted in a more economical start to their farming season.... Also, farmer beneficiaries now practice the weighing of their yields prior to engaging to middlemen. Previously, these farmers would just give in to the preference of middlemen that their yield are to be sold based on the number of sacks'.*

³⁴³⁴ Ministry of Agriculture was changed name to Ministry of Production and Economic Resources (MOPER)

2: Detailed Account of FFS and FMS history in West Darfur

FFS history in SAHEWA and SCEED

The SAHEWA project started in 2015 as a combination of previous short-term humanitarian projects on Health Education and WASH. SAHEWA means: Sanitation, Health Education and Water for All. SCEED succeeded SAHEWA, when it terminated in the end of 2019. SCEED means Strengthening Community Engagement and Empowerment in Darfur. SCEED has lasted two years 2020-21, and a new two-year period is planned. Both SAHEWA and SCEED were based on funding raised by ADRA Denmark from DANIDA.

FFS was introduced in SAHEWA in 2016. At that time no project staff in SAHEWA had an agricultural background, so FFS was introduced through written materials. It was actually more 'agricultural training' in the beginning although some groups had been established. The training they were offered was delivered by staff of the Agricultural Research Centre in Geneina. The subjects were also suggested by ARC. These included issues such as sowing in rows, manure production and land preparation, and they were supported by illustrated handouts produced by ARC.

The groups responded enthusiastically to any training offered to them. At that time, Darfur was just coming back after a period of conflict and huge displacement of people. Many farmers had left their farms and were living in IDP camps. The Government structure was weak. When farmers in Adar village 25 km from Geneina – the capital of West Darfur - were asked, when they had last met an MoA extension officer, their answer was: *'Never!'*

The subject-by-subject training of farmers by agricultural experts from ARC was found expensive, as the experts were paid 'incentives' on top of transport and meals, which were given to the visiting experts as well as the farmers. A method based on farmers' initiatives and felt needs was sought. A well-known FFS project in North Kordofan was visited by the relevant SAHEWA project staff, and the notion of season-long training was introduced in SAHEWA. That was the actual start of FFS in SAHEWA. It was in 2017.

Village Saving and Loan Association (VSLA) was also introduced in SAHEWA in 2017. The VSLA approach was very attractive to farmers and developed fast. The materials used to train the first groups were based on manuals from VSL Associates. The project staff were too few to handle all the requests for VSLA, so the term 'Village Agent' was introduced, again as a term learned from experience with VSLA in other countries via VSL Associates. The Village Agent is a gifted VSLA member, who offers to start up and support new VSLAs.

In Darfur it typically worked as a method of creating more VSLAs in a village, where the first VSLA had been trained by SAHEWA staff. Soon more villagers would like to join, and one VSLAs became two, three and even more. The persons, who organized the initial training of new VSLAs were local Village Agents, who worked as unpaid community workers. As agricultural training was

in equal demand, Village Agents also started to form Farmer Field Schools based on limited knowledge from formal agricultural institutions such as ARC and MoA. But booklets, local knowledge and experience were used.

In 2018 SAHEWA could count totally 15 Village Agents – 3 women and 12 men - giving services in their communities for starting VSLAs and local Farmer Field Schools. The enthusiasm and hunger for knowledge was big in this group. At a meeting in the ADRAs office in 2018 they were asked what kind of support they needed from ADRA. The answer was: *training, training, training!*

At this same meeting a contact with the MoA was initiated. The MoA representative asked the Village Agents, if their FFS groups were registered. They were not, as they were just local community groups. The Village Agents were told about the procedure of registration, which also included formal registration and approval of village land. This was not agreed by the group members in that meeting. And the Village Agents did not proceed to collaborate with the Ministry at that time.

But later – after various trainings in White Nile of project staff and selected VAs from Darfur - FFS has been formalized and is now implemented with the full knowledge and collaboration of the MoA. But the number of MoA extension officers trained in FFS – in the SCEED project, which succeeded SAHEWA from 2019 - and actually facilitating FFS is still small compared to the community-based Village Agents. In 2018 there were 5 Village Agents who are all still active, In 2019 there were 35 VAs of whom 8 are still active. In the SCEED project, which succeeded SAHEWA in 2020 there were 15 active Village Agents in Krenik and Genenina Localities.

SCEED attempted to formalize the relationship with MoA, by giving it a clear role in relation to FFS implementation: *'The project will train and support the West Darfur Ministry of Agriculture Office to deliver Farmer Field School facilitation to farmer groups in the target area. This will begin with a master trainer workshop for MoA extension agents. The project in collaboration of the Ministry of Agriculture will plan to conduct 15 season-long Farmer Field Schools during the first project year and 15 during the second year with the assistance of trained Farmer Facilitators.'*

After an FFS group has completed a full training cycle and begun the process of establishing one or more daughter groups, a cluster will be organized and given a commercial grade mechanical platform scale to be used by FFS members in weighing and marketing their agricultural products. This has proven in other projects to improve fair market access, increasing farmer engagement in improved production.

FFS is a farmer-lead participatory learning process that is naturally suited to facilitation by farmers. The project will train 30 farmer facilitators at the end of the first season. These farmer facilitators will assist MoA extension in establishing new FFS groups during the second year of the project' (from SCEED project Document).

There is a difference between what project staff told us, and what is written in the SCEED final report regarding the role of Village Agents. We were told that the Village Agents are the key

facilitators of the 12 identified FFS subjects, but in some cases, they call for support by agricultural expertise from TTEA³⁵ or ARC staff, who then address the FFS members for that specific subject. One reason for not involving TTEA staff more in the training, we were told, is that 1) the number of them is limited in Geneina, and not all have FFS expertise or the demanded specific agricultural knowledge. 2) Furthermore, the HAC³⁶ in Geneina has published a compulsory list of daily 'incentives', which NGOs must pay to Government staff, who are requested to travel to the field and give services. The current official Incentive sum for facilitating a subject is SDG 10,000 per day. Transport and meals also have to be given to them. This is an expensive method.

The total number of FFS groups in the SAHEWA/SCEED project area:

| Year | groups | members | Women | men |
|--------------|---------------|----------------|------------------|------------------|
| 2017 | 7 | 178 | 109 | 69 |
| 2018 | 14 | 341 | 167 | 174 |
| 2019 | 10 | 209 | 101 | 108 |
| 2020 | 10 | 234 | 188 | 46 |
| 2021 | 20 | 515 | 410 | 105 |
| Total | 61 | 1,477 | 975 (66%) | 502 (34%) |

Because of the way groups are formed in Darfur, the FFSs are permanent groups. The members continue to work together after a season-long FFS. In the case of Bej Bej village the FFS group has existed through 5 agricultural seasons – each year with a new subject. In SAHEWA/SCEED the FFS groups are purposely linked to FMS, VSLA and even CAP.

FMS History in SAHEWA and SCEED

The Village Agents started in VSLAs and continued with FFS but have also been instrumental with the introduction of FMS in SAHEWA. Actually, no Village Agent is only confined to one the approaches. The Village Agents are community workers, who primarily serve the inhabitants in their own village. Therefore, it is not surprising to see some of them also being active in starting up projects based on Community Action Plans.

FMS was introduced in Sudan in 2017 in SAHEWA. Three important things happened: The 2017 version of the FMS manual was translated to Arabic, a stakeholder meeting was held in Geneina on the plans of testing the FMS approach in West Darfur, and the first FMS training took place in Geneina.

The Manual

FMS was developed as a new methodology in 2016 and tested in an evaluation in Zimbabwe and Malawi in 2018. The first manuals from 2016 and 2017 were based on a week-long training, while the version from 2019 and onwards is based on a two-week training of facilitators and 13 weekly sessions. when farmer groups are facilitated. It was clear that English could not be used as a medium of training in Sudan, where Arabic is the official language, which is also taught in schools.

³⁵ Technology Transfer and Extension Administration

³⁶ Humanitarian Aid Commission

So, to implement FMS in Sudan an Arabic translation of the 2017 manual was made. It was done in haste, and that was an achievement. But the quality of the translation has never been assessed.

Stakeholder Meeting

Before the planned FMS training took place in Genenina, a stakeholder meeting was called, where the new approach was presented. The stakeholders were from MoA, ARC, some international organisations like WFP, local banks and NGOs. The stakeholders responded to the introduction of FMS with positive interest, although the Head of MoA cautioned ADRA by saying: *'Farmers do not know scientific agriculture, so I doubt they will understand scientific marketing!'* Still a pilot project was welcomed and so was the planned training.

Training

Two MoA staff from White Nile, ADRA staff and MoA and other Government staff from West Darfur took part in an FMS training in Geneina in 2017. It was based on the newly translated FMS manual and was conducted by Elkhidr from ADRA Sudan and Christian from ADRA Denmark. Lateron, in 2019, one SAHEWA staff (Dar Elsalaam) and a Village Agent (Alsadiq – see. Interview below) were trained in the first FMS Master training in Addis Ababa in 2019.

After the first FMS master training in Addis Ababa in 2019 (organized by Christian from ADRA Denmark and Susan from ADRA Zimbabwe) FMS developed fast in West Darfur by SAHEWA. But the three approaches VSLA, FFS and FMS - were closely connected through the Village Agents. Sometimes an FFS group was trained in FMS and became an FMS group. This led to some trainings which combined subjects. 10 FMS groups had been formed by the training of 10 existing FFS groups. They were trained in the following subjects:

1. Training of FFS facilitator in project area.
2. training and Distribution of FFS self - monitoring tool.
3. Extension training on rainy and winter season crops to FFS facilitator.
4. Distribution of weighing scales for FFS groups
5. Conducting one FFS field day
6. Training of groups on farmer market school
7. The FFS facilitator establishment of new farmer field school in in project area
8. The FFS facilitator establishment of demonstration farm in project area
9. Registrations of the FFS groups in MOA office
10. One FFS group using groundnut harvester machine first time in Darfur.
11. Formation of farmer market school group
12. training and Distribution of FMS self - monitoring tool.
13. Extension training on rainy and winter season crops to FMS facilitator

Another example was a training of Village Agents undertaken by SAHEWA in the end of 2019 – before SAHEWA was closed as a project. It was a training where '35 FFS field agents' became FFS/FMS trainers. The subjects were the following:

1. Introduction to the learning process
2. Preferred market crops
3. Household tree and seasonal calendar
4. Market, price and payment terms
5. Value Chain Map
6. Communication skills

7. First trip to market
8. Self-monitoring tool
9. Value addition and food processing
10. Team building and leadership
11. Natural resource management
12. Malaria
13. Integrated pest management
14. Income generation activities
15. Conditions and policy of micro-finance,

These two lists of subjects show how production and market subjects were mixed in SAHEWA: **This is an innovation, not seen elsewhere!**

From 2020 onwards a new project filled the shoes of SAHEWA - called SCEED. It builds on many of the success of SAHEWA e.g. the CAP approach, and stretches into project areas in Krenik and Central Darfur. The target was to establish 30 FMS groups and 30 FFS groups during the two years of the project. These targets were not fully met for a variety of reasons. Darfur was after the failed Sudanese revolution in 2021 haunted by tribal conflicts, which had re-erupted and still affected many project activities. The number of FFS groups were 20 (409 women and 105 men), while there were 21 FMS groups established (488 women, 68 men).

An evaluation took place of SCEED at the end of the second year (2021). The close relationship between VSLA, FFS and FMS is described in detail. As lessons learnt the evaluation report highlight the following:

‘The four project components (FFS, FMS, VSLA, CAP³⁷) interact with each other where the FFSs can’t work alone without FMSs, when FFSs and FMSs are in place the VSLAs will succeed so good FFSs, FMSs, VSLAs leads to Smooth CAP projects achievements³⁸’.

This observation suggests a rather linear mechanical relationship, which is not how it is in reality. In many cases VSLAs are formed before FMS groups and at the same time as FFS groups. Several CAP projects have also been initiated without any relationship to VSLAs nor FFS/FMS. Typically, VSLAs give small loans to its individual members, who invest in various individual ‘projects’ in order to have their resources bound in an income generating activity rather than as money, which will lose their value due to high inflation. As for raising funds for CAP projects, there are many other sources of raising such money, most common is direct community contributions, but also e.g. sale of livestock, remittances

But surprisingly the role of the Village Agents is not mentioned in this evaluation report³⁹. We were told by project staff how important these Village Agents have been again and again – not least

³⁷ Community Action Planning

³⁸ The same linear relationship – with the same wording - is being used in the project's annual report 2022.

³⁹ The term ‘Village Agent’ is only used for VSLA activities in the SCEED project document 2020-22. For FFS the term ‘TOT’ is used for farmers who will assist ETTA staff with training FFS. The SCEED final report also only uses the term ‘TOT’ for these farmer trainers. It is true that the term Village Agent comes from VSLA praxis, but in FAO literature the term ‘Farmer Facilitators’ or ‘Farmer Trainers’ are used. It is not clear from these two SCEED report who should do – and who did – the training of FMS groups. We have retained the term Village Agent in this report, because of its important history in both SAHEWA and TMP. In the SCEED annual report 2022 it is mentioned, that *‘The entire FFS / FMS groups are formed and trained in close coordination with Ministry of Agriculture at both the State and Federal levels’*. While this may be relevant for FFS groups it is not for FMS groups. The MoA has no capacity in training FMS! A senior project staff in SCEED and an experienced Village Agent are the only FMS ‘Master Trainers’ in Darfur. The information that MoA trains FMS is repeated in the SCEED evaluation report, where both Farmer Market Schools and VSLAs wrongly are added on the list of services given by the MoA.

during common lockdowns in Darfur in 2020-21 – either because of Covid 16 or the renewed conflict. While Government and ADRA project staff would stay in their offices, activities in the villages would continue – lead by the Village Agents. There was telephone contact between them and the ADRA office during such times. We have interviewed four Village Agents in West Darfur, who confirm their role as both VSLA, FFS and FMS facilitators. Without their activities the achievements would not have materialized.

The number of FMS groups in the SAHEWA/SCEED project area:

| Year | groups | members | Women | men |
|--------------|---------------|----------------|------------------|------------------|
| 2017 | 1 | 25 | 7 | 18 |
| 2018 | 2 | 52 | 23 | 29 |
| 2019 | 5 | 154 | 81 | 73 |
| 2020 | 20 | 526 | 380 | 146 |
| 2021 | 21 | 556 | 488 | 68 |
| Total | 49 | 1313 | 979 (75%) | 334 (25%) |

The ADRA Sudan office in Geneina has supplied details of the implementation of FFS, FMS and Village Agents from 2018 to 2022.

| | |
|--------------------------------------|-----------|
| FFS Groups | 62 |
| FMS Groups | 49 |
| VSLA Groups | 70 |
| Active Village Agents in 2022 | 27 |

These figures have been achieved with a slightly different approach than the one we shall see being used in White Nile. What they have in common is though almost the same: a) Very big importance of Village Agents and b) predominately female participation in the groups: FFS (65%), FMS (80%). Even the Village Agents have a dominance of women (55%). In Darfur FFS groups have also been established by Village Agents – as opposed to White Nile, where MoA staff alone functioned as FFS facilitators.

Impact study of FFS and FMS

The only impact study made of SAHEWA/SCEED is a draft external evaluation report done for ADRA: **Endline Survey of the Project Strengthening Community Engagement and Empowerment in Darfur, February 2022**. It is written by a group of consultants and has a conventional evaluation design with findings related to project relevance, project effectiveness, efficiency, impact and sustainability. It also has a section of land ownership, marketing, training, gender and lessons learned.

The weakness of this survey is, that it does not have a baseline to compare its findings against.

When it thus mentions that *'66.6% of the total respondents showed that they sell their products'* this may as the report concludes reflect *'the importance of upgrading the skills of marketing among the communities'*. But without a baseline it is not known whether this is an increase from before the project, and how big that increase is.

Most of the quotable conclusions in the report came from FGDs. The FGDs showed that *'HHs benefited a lot from the knowledge gained through their engagement in FMSs'*. This also indicated that *'the communities applied what they have learned from FMSs intervention, they stated that one of the lessons they have learned from the FMSs is to avoid selling to mediators when prices are not encouraging'*.

From Focused Group Discussions the evaluators also concluded that *'the adopted FMSs have contributed to empowering of farming skills and meeting of market demand mainly quantity, quality and improving marketing negotiations skills'*. Furthermore *'farmers confirmed that they developed negotiation and market skills as result of the training, orientation and skills developed during the activities of the Farmers Field Schools and Farmers Market Schools'*.

The report continues: *'Demonstration of FFSs farms have proved to be the best way of convincing farmers to change their traditional ways of farming and adoption of modern techniques'*, and it concludes that *'FMSs and FFSs approaches have contributed to create resilient farmers through improving their income'*.

Lessons learned were that *'Adoption of FFSs, FMSs, VSLA, CAPs ensured involvement of communities in planning, decision making, monitoring and evaluation, self-identifying problems and solutions and involving women and youth in activities. From the survey sample 64.6% were involved in VSLA, 68.2% involved in FFSs and 66% involved in FMSs'*.

3: Detailed Account of the Field Work in West Darfur and White Nile

The objective of the assignment in Sudan is as mentioned earlier to assess how effective the FFS and FMS approaches have been in relation to improving the income and livelihoods of the target group.

This is the second part of the report, which is based on recent field work done in the project areas of the involved projects. While the previous part treated the subjects based on secondary sources – project document, evaluations and history writing, the present part treats the findings made in field work White Nile and in West Darfur.

The research instruments⁴⁰

Various research instruments were used:

- a) Livelihood Self Perception
- b) Self-Monitoring Tool
- c) Short interviews based on interview checklist of Village Agents, FFS members, FMS Facilitators, FFS Facilitators
- In-depth Individual interviews

All interviews were done in Arabic by a group of nine members of a Sudanese field team⁴¹ in White Nile and by ADRA staff in Darfur. All written formats used were also translated into Arabic. And the findings were translated from Arabic into English.

a. Livelihood Self Perception

The most detailed method used in this research is based on the livelihood self-assessment tool used in the FMS training. It is designed as a 'mood meter', which is known by all FMS trainees.







But as a difference from the mood meter, it contains a total of 15 different statements of smallholder

farmers' livelihood, which may be changed with FMS and FFS interventions. This is not quantitative measurements, but rather farmers' subjective self-assessments. Farmers will for each question choose between 6 gradual statements, which relate to the subject from almost 'zero' to 'a lot' as illustrated above. These fifteen questions are thus the main questions raised in this research and

⁴⁰ The full formats in English and Arabic are found in the Annexes

⁴¹ Their names and contact addresses are enclosed in Annex 1

will be dealt with in detail in the following section, which also brings in additional inputs from the other research instruments and resource material used. 18 FMS groups – 16 from White Nile and 2 from West Darfur - took part in this exercise, representing **350 individual FMS members**, who answered all the questions/issues raised in the livelihood self-perception exercise. Their response will be dealt with under eight different headlines, which will be the structure of this section.

| Self-Perception of your Livelihood in relation to: | Zero  | One  | Two  | Three  | Four  | Five  |
|--|---|--|--|--|---|---|
| | Almost nothing | A little bit | Some knowledge | Medium knowledge | Good knowledge | A lot of knowledge |
| 1, My knowledge about the market | | | | | | |

The strength of this tool is its focus on various important livelihood issues for smallholder farmers. It also has a strength in relation to a multi-year process by offering the ability to compare the status of various livelihood elements over time. But, for this exercise, the conditions forced us to use recall data (from 2019) and compare them with the situation at present (2022). The tool itself is part of the FMS training and is a key impact measurement tool for FMS groups from the beginning of their training until after first and second harvest after the training. Since the FMS manual used in Sudan was from 2019, where this tool was not included (it is only in the 2021 versions), baseline data were not available. To use recall data is problematic for many reasons, but this was our best option in the assignment in Sudan.

When the tool was used – in an Arabic version – the FMS group members were asked to try to remember the situation as it was in 2019 before their FMS training. The filled-in sheets were then collected without names of the farmers involved. The FMS group was then engaged in a more general discussion e.g. on group history and the general conditions in the village as well as some other exercise (see below). After a minimum of half an hour, the self-perception exercise was repeated with fresh sheets. The same respondents were asked to fill the template again, but now with the present situation in 2022 in mind. Afterwards these were also collected. We used a color code to enter the data in one single sheet per group from 2019 having one color and 2022 scores another. This made it possible to calculate the distribution of answers – in percentages – from 2019 and 2022 under the same heading for comparison.

While the strength of this tool is that it seeks to illustrate important qualitative data, which normally are not systematically addressed – and not quantified. Its weakness is the difficult communication of concepts in English being translated to Arabic. The Arabic templates are then shared with village women, of whom some are illiterate and need help by literate members. Then the Arabic answers are put into the English format. Arabic and English are based on different cultures, and there are simply words and concepts in English, which are very difficult to translate (and vice versa), e.g. concepts like ‘self-confidence’, ‘monitoring’, ‘life conditions’. 16 FMS groups participated in White Nile and 2 FMS groups participated in West Darfur. It thus also made it possible to compare and see, if there were marked differences from the two different States.

b. Self-Monitoring

This tool is also part of the FMS training, and was also included in the 2019 FMS manual, which was used in Sudan. It was thus known to all the farmers, who had been part of FMS-training in Sudan. The tool is a very simple example of basic farm recording, which is meant to be used by the participating farmers in an FMS group. They will insert their basic production data and sales records after each harvest and use this as a tool for better planning of the Family Farm. The template (see below) is introduced in the FMS training, and it is the property of the individual farmer, who will take it home. The farmers who volunteered to fill this format were familiar with it, as they had done this before. The role of the self-monitoring tool is primarily for the farmer’s own use of planning his/her family farm. That is why it is called ‘self-monitoring’.

Sample of a self-monitoring tool (from FMS manual 2021)

| | | | | | | |
|----------------------------|-----------------------|------------------------------------|--------------------------------|----------------------|------------------|-------------------|
| Farmers name: | | Adam Khalifa | | Village name: | Bej Bej | |
| FMS/FMS group name: | | Bej Bej FMS group | | Date: | 2020 | |
| Crop and season | Area planted (fedhan) | Monocrop or intercropping (M or I) | Quantity harvested (Kg or bag) | Quantity sold (Kg) | Unit Price (SDG) | Total price (SDG) |
| Tomato | ½ | M | 120 kg | 100 kg | 5 | 500 |
| Sesame | 1 | M | 20 bags | 20 bags | 40 | 800 |
| Millet | 3 | M | 50 bags | 25 bags | 25 | 625 |
| Ocra | ½ | M | 75 kg | 70 kg | 10 | 700 |

The weakness of this tool is again the reliability of the recall data from 2019. But there is also a general reluctance of farmers to share private economic information to outsiders. The template is actually not meant for used information extraction, but for the farmers’ own use in planning.

c. Short interviews based on interview checklist of Village Agents, FFS members, FMS Facilitators, FFS Facilitators

These interviews were of shorter duration and were all taken in White Nile with 7 FMS members, 8 Village Agents and 4 FFS members.

d. In-depth individual interviews

We succeeded to make four individual in-depth interviews with **Village Agents** in West Darfur. They took place with the help of a guiding checklist of helpful questions (see annex). They were conducted with the assistance of ADRA Sudan staff. An interview would take up to two hours and were relatively detailed (see annex 4).

Presentation of Findings

The subjects in the livelihood self-assessment are relevant for farmers, who have been involved in FFS and FMS training programs. The results are presented under eight subject headlines:

1. Households general condition and health
2. Personal self-confidence and general happiness with life conditions
3. Intra-household gender relations
4. Savings
5. Market knowledge and visits to markets
6. Value Addition and collective marketing
7. Agriculture knowledge and practices
8. Climate change on agricultural production

Under each of these subjects, relevant quotes from the other tools used are added as well, so that all field data relevant for the specific subject are presented together.

1. Households' general Condition and Health

a) My household's situation in general

16 FMS groups in White Nile

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------|-------------|-------------|
| Very bad | 15,0 | 0,4 |
| Not good | 19,0 | 2,9 |
| Quite OK | 44,3 | 15,4 |
| Average | 11,7 | 20,7 |
| Good | 4,7 | 35,4 |
| Very good | 5,3 | 25,4 |

| | 2019 | 2022 |
|------------------|-------------|-------------|
| Very bad | 29,5 | 0,0 |
| Not good | 40,9 | 0,0 |
| Quite OK | 25,0 | 10,3 |
| Average | 4,5 | 12,8 |
| Good | 0,0 | 53,8 |
| Very good | 0,0 | 23,1 |

The answers in the groups in White Nile are mostly in the middle: *'quite OK'* or *'average'* in 2019, not very good, but also not *'very bad'*. In 2022 the responses have moved towards *'good'*, but not *'very good'*. The West Darfur groups report a significant shift from *'not good'* in 2019 to *'good'* in 2022. The reasons for this shift are not clearly understood.

The situation in Darfur in 2019 was perceived as transitional – from a long drawn-out emergency to one with less attention and support by external projects. There was *'donor fatigue'* combined with very poor government. SAHEWA only continued with short-term extensions up to 2020. But when the revolution started (early 2020) people in Darfur took part with great enthusiasm and hope. This could account for the more positive expectations of life in general. But the security situation in Darfur has actually worsened, not least after the military coup in late 2021. And the economy in Sudan is in serious crisis. The optimism reflected in the response to the general situation of households is actually not easy to explain!

Perhaps it is rather the particular situation in the two villages, which represent the clear shift. Bej Bej has thus recently installed water pipes to all households in the village, which is huge improvement of life and a spectacular improvement in a West Darfur village. And Agoura has after being an almost *'neglected'* village in 2018-19 seen a lot of activity. It started in 2019, when a Community Led Sanitation exercise – led by the youth - took the place in Agoura. This was the beginning of several additional developmental initiatives. And in the period 2020-21 it has become a very active place – generated amongst others, by a very active Village Agents (see the in-debt interview of Alsadiq in Annex 2).

Brief quotes from short interviews in 2022 in White Nile: How is the general situation of your household?

- *Good*
- *It is good but we need a pump, inputs and training*
- *Good we make decision together*
- *Fine*
- *We need health and education services*

b) The health of my family members

Amongst improvements of different livelihood capitals human capital (including health) is very central for most smallholder farmers.

16 White Nile FMS groups

| | 2019 | 2022 |
|-----------|-------|-------|
| Very bad | 17,6% | 1,6% |
| Not good | 17,6% | 1,3% |
| Quite OK | 31,6% | 15,4% |
| Average | 18,2% | 23,0% |
| Good | 7,0% | 28,5% |
| Very good | 8,0% | 30,2% |

2 West Darfur FMS groups

| | 2019 | 2022 |
|-----------|-------|-------|
| Very bad | 14,6% | 0,0% |
| Not good | 29,3% | 0,0% |
| Quite OK | 43,9% | 16,2% |
| Average | 12,2% | 10,8% |
| Good | 0,0% | 45,9% |
| Very good | 0,0% | 27,0% |

The change in both White Nile and West Darfur regarding the health situation of families went from 'quite OK' to 'good and very good' in 2022. This may be caused by improvements in access to safe water as explained above in Bej Bej. The TMP established safe water access in some village in both Al Jebelein and Al salaam in White Nile, but it is not clear whether these were the same villages the 16 FMS groups came from.

Brief quotes from the short interviews from White Nile also this predominantly positive health situation. They were asked: What about the health situation for all members – how is it?

- *Children are in good health*
- *Good*
- *We have diabetes and high blood pressure. We need money to pay for the tablets*
- *Our health is good but my husband has diabetes*
- *Good, no problems*
- *No problems with us, we are in good health*
- *We need safe water. We need a health worker*
- *No problem in our family*

2. Personal Self-confidence and general Happiness with Life Conditions

Below are the responses to a: 'My own self confidence

16 FMS groups in White Nile

| | 2019 | 2022 |
|---------------------|-------------|-------------|
| Very low | 34,6 | 5,5 |
| A little bit | 27,4 | 6,5 |
| Not high | 21,9 | 18,9 |
| Average | 10,3 | 24,4 |
| High | 3,1 | 19,6 |
| Very high | 2,7 | 25,1 |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|---------------------|-------------|-------------|
| Very low | 34,1 | 0,0 |
| A little bit | 48,8 | 0,0 |
| Not high | 9,8 | 13,2 |
| Average | 7,3 | 31,6 |
| High | 0,0 | 34,2 |
| Very high | 0,0 | 21,1 |

The table for White Nile is illustrating a straightforward transformation of most members from having very low self-confidence in 2019 to 'average/high/very high' self-confidence in 2022 after FMS training. In West Darfur the picture is almost the same. The FMS training may actually have played a role in this transition, as increased self-confidence has been observed in various assessments as an early psychological improvement happening even before material improvements are experienced. In the 2018 evaluation of the FMS pilot projects in Zimbabwe and Malawi, increased self-confidence and empowerment – were detected as early outcomes of learning new and relevant aspects about the market and its actors. The FMS student would especially feel empowered in relation to the middleman because of better understanding on how the market works.

Brief quotes from short interviews from White Nile: Yourself – how is your confidence as a person? give a mixed picture:

- *I have no confidence because the general situation is bad, and I hope it becomes better*
- *Not good, we need help in our lives*
- *Good situation, we increase our income by trade and savings*
- *I have confidence, because I learned how to get money. I am happy now*
- *Yes, I have confidence and also do savings*
- *Conditions are not good, too high prices*
- *No confidence, I want to increase my income*
- *I am very confident and happy from saving money and trading*

A second aspect is b: 'my general happiness with my life conditions'.

This is much more than self- confidence but shows very similar ratings. The two subjects are next to each other in the template, so maybe one has influenced the other. But the improved self- confidence could also have some influence on the responses to the question.

16 FMS groups in White Nile

| | 2019 | 2022 |
|--------------|------|------|
| Very low | 29,4 | 2,5 |
| A little bit | 22,7 | 4,1 |
| Not high | 24,5 | 20,1 |
| Average | 14,2 | 27,3 |
| High | 6,1 | 21,9 |
| Very high | 3,0 | 24,1 |
| | | |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|--------------|------|------|
| Very low | 17,9 | 0,0 |
| A little bit | 48,7 | 0,0 |
| Not high | 20,5 | 6,3 |
| Average | 12,8 | 28,1 |
| High | 0,0 | 40,6 |
| Very high | 0,0 | 25,0 |
| | | |

Brief quotes from short interviews from White Nile: How is your general happiness with life conditions?

- *We share all decisions in the household*
- *Good*
- *I have change to be better at making decisions and solve problems*
- *We are in general not happy*
- *I learned how to get more money. Then I am happy now*
- *All the family share decisions*
- *Yes, we are happy because we have learned a lot*

3. Gender

Gender issues are important for smallholder farmers – not least when women dominate the membership of FFS, FMS and VSLAs. The focus here is on the intra-household dialog about decision making on what to grow and on the Household economy. In this case the two questions are not on the same page in the template, but apart from each other.

The responses below relate to the assessment of a. The degree of male and female Household members sharing in the management of our family farm's economy

16 FMS groups in White Nile

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 29,4% | 2,5% |
| A little bit | 22,7% | 4,1% |
| Not high | 24,5% | 20,1% |
| Average | 14,2% | 27,3% |
| High | 6,1% | 21,9% |
| Very high | 3,0% | 24,1% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 17,9% | 0,0% |
| A little bit | 48,7% | 0,0% |
| Not high | 20,5% | 6,3% |
| Average | 12,8% | 28,1% |
| High | 0,0% | 40.6% |
| Very high | 0,0% | 25,0% |

Brief quotes from short interviews in White Nile on the question: When it come to the economy do male and female members share the responsibility with each other of the management of your family farm?

- Yes, men and women share in decisions
- Yes
- The share of men's decisions is 70%, women's is 30%
- The family shares responsibilities
- The men and the women share the decisions and opinions. We share in harvesting and marketing together
- In our farm the women take decisions about crops – what we shall plant
- We share field management
- Yes, we share

The second gender issue being responded to in the exercise was b: Degree of male and female household members sharing decisions on what to grow

16 FMS groups in White Nile

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 29,9% | 1,2% |
| A little bit | 28,8% | 5,0% |
| Not high | 18,8% | 19,7% |
| Average | 11,1% | 16,2% |
| High | 11,4% | 31,9% |
| Very high | 5,2% | 31.3% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 14,6% | 0,0% |
| A little bit | 56,1% | 0,0% |
| Not high | 19,5% | 8,3% |
| Average | 4,9% | 5,6% |
| High | 4,9% | 55,6% |
| Very high | 2,4% | 30,6% |

Brief quotes from short interviews from White Nile: What about decisions of what to plant in your farm – are they shared with your spouse or are you taking all the decisions yourself?

- Yes we share decisions
- We share together
- The woman is the main person in our home
- We share decisions on which crops to grow
- The women share all agricultural issues
- My husband makes the decisions, but we share with him in the work: weeding and harvesting
- We women make all the decisions

A viewpoint from West Darfur:

- *Women become more confident that they speak in presence of men (breaking traditional barriers).*

Decision making about what to grow shows stronger improvements in relation to gender equality than sharing decision making on the household/farm economy. Maybe this reflects the fact that women do most of the manual agricultural labour. And the statement relates to 'growing' not to 'selling a crop'!

The two issues show a marked improvement in terms of gender equality. There would be no reason why the respondents should not give honest responses. Most of them were women. Typically, a session of the entire FMS group would show a big number of women sitting on mats, some of them with babies, while a much smaller group of men would be sitting on chairs often chatting with each other, while the women are mostly silent and more attentive. The overall impression in relation to Sudanese rural women is that they are extremely strong. Many households are headed by women, even when they are married (see the in-depth interviews of Zainab in Annex 4).

Often men have jobs outside the village and earn money from migrant labour, e.g. the annual cotton harvest in Blue and White Nile attracts many men from all over Sudan. A factor may also be that polygami is common in Sudan, whereby women have stronger roles in the household while the man is often absent. And as mentioned earlier the men are associated with irrigated agriculture (in White Nile), where tractor ploughing is used, while women are using hoe cultivation on mostly rainfed plots

4. Savings

Regular savings are seen as a main strategy for improving cash flow in the household's economy over the agricultural season. Savings are also used for investments in income generating activities as well as buying inputs for agricultural production (see the interview with Zainab, where she explains about her plans of buying a donkey at the upcoming share out of her VSLA - Annex 4).

The answers to the question 'How much I am saving regularly' were the following:

16 FMS groups in White Nile

| | 2019 | 2022 |
|----------------------|--------------|--------------|
| Nothing | 29,4% | 2,7% |
| A little bit | 42,7% | 7,8% |
| Sometimes | 12,6% | 9,6% |
| Medium | 11,9% | 25,9% |
| A good amount | 2,7% | 32,8% |
| Very much | 0,7% | 21,5% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|----------------------|--------------|--------------|
| Nothing | 35,0% | 2,6% |
| A little bit | 42,5% | 0.0% |
| Sometimes | 5,0% | 2,6% |
| Medium | 15,0% | 34,2% |
| A good amount | 0,0% | 47,4% |
| Very much | 2,5% | 13,2% |

Some of the FMS groups in both White Nile and West Darfur knew about VSLA before the FMS training, and many – even most – of them eventually became VSLA members. The introduction of VSLAs in both projects at the same time as FMS groups explains a lot of this positive change, which is illustrated in the charts above. It is worth noting that in this period there has been an extreme and growing deflation of the Sudanese Pound. Interviews of individual VSLA members explain how the charts above respond to this situation. They actually use the VSLA to make **investments**, which retain their value and generate more money, which either is being used or invested again! They thus aim always secure the saving box to be ‘empty’: as soon as savings have been received, the group gives them out as individual or group loans.

When it comes to the end of the savings cycle, the members will receive the nominal amount of savings, which has lost its initial value. But the amount is still big enough to buy inputs, payment for soil preparation etc. It is questionable if this will continue with the present devaluation rate. But the decision to continue VSLAs and how to handle the situation is fully in the hands of the VSLA members themselves.

Brief quotes from interview question (from White Nile): How do you succeed to save money? (where is it kept?)

- *I keep some money myself from my sales, and I save in the savings box (VSLA)*
- *I save my money in my house*
- *My savings are kept in the VSLA*
- *I have saved 12 bags of sorghum for family consumption*
- *I put a little money aside, I also put money in VSLA and I have an account in the Savings Bank in Rabak*
- *I save in a savings box (VSLA)*
- *We have a savings group, and I save in a savings box (VSLA)*
- *I have a small tin in my house, which I put money in*

5. Market Knowledge and Trips to Market

One of the key issues in the FMS training is to enable and urge farmers to collect market information on their own. The livelihood self-assessment exercise gave the following result to the question: What is my knowledge about the market?

16 FMS groups in White Nile

2 FMS groups in West Darfur

| | 2019 | 2022 |
|--------------------|-------|-------|
| Almost nothing | 35,1% | 2,3% |
| A little bit | 27,3% | 4,3% |
| Some knowledge | 12,0% | 6,6% |
| Medium knowledge | 20,1% | 19,3% |
| Good knowledge | 2,9% | 43,9% |
| A lot of knowledge | 2,6% | 23,6% |

| | 2019 | 2022 |
|--------------------|-------|-------|
| Almost nothing | 41,5% | 0,0% |
| A little bit | 39,0% | 2,8% |
| Some knowledge | 2,4% | 2,8% |
| Medium knowledge | 12,2% | 19,4% |
| Good knowledge | 2,4% | 66,7% |
| A lot of knowledge | 2,4% | 8,3% |

The two tables clearly show a change from ‘almost nothing’/‘a little bit’ in 2019 to ‘good’ or ‘a lot of knowledge’ in 2022. The change in the opinions of West Darfur FMS groups is slightly steeper than the change in White Nile. The results are almost certainly a result of FMS training. It is actually a very positive response to the main aim of FMS: to increase farmers’ understanding of how the market functions.

Brief quotes from this interview question in White Nile: What do you know about how a market functions?

- *I had no knowledge before the training, now I have more*
- *We have two kinds of markets: the big one in Rabak and the market in the village. I know them both now*
- *The market is a place where you get services and can get storage space*
- *I ask about prices before I go to the market*
- *I have stopped selling to the middleman, I now go directly to the market and try to find out about prices before bringing my goods*

In order to get more details on what the FMS members actually meant when they were asked about the knowledge about the market, a quote is brought here from the in-depth interviews from Darfur:

Abubaker:

‘Together with other members of the community they never knew, how the market operated, before they were trained. Many time they grew their crops and took them to the market, where they were received by middlemen. They never thought, they could go beyond this level, because they didn’t realise that these were middlemen. After training, they did their market visits, and they realised that there were many actors, the second time they started talking to some traders and even got there mobile numbers. The traders gave them some information about the prices and quality’ (Annex 4).

Now they are able to communicate with the buyers, before they take the produce to the market. Sometimes they have to put together their produce to meet the buyer’s demands. This has also shaped - way they plan their cropping’.

| | 2019 | 2022 |
|------------------------|-------|-------|
| Never | 46,8% | 4,2% |
| Less than once a year | 32,6% | 13,1% |
| Two-three times a year | 16,7% | 35,9% |
| Every second month | 8,2% | 34,6% |
| Almost every week | 3,9% | 12,1% |

| | 2019 | 2022 |
|------------------------|-------|-------|
| Never | 65,9% | 0% |
| Less than once a year | 19,5% | 13,2% |
| Two-three times a year | 9,8% | 23,7% |
| Every second month | 2,4% | 60,5% |
| Almost every week | 4,9% | 2,6% |

Another question showed similar results b: My trips to towns or market towns to enquire about prices.

16 FMS groups in White Nile

2 FMS groups in West Darfur

This response should be seen in connection with first question. The number of trips to markets have clearly increased from 2019 to 2022 in both states. The change was most clearly illustrated in West Darfur, where 76% 'never or less than once a year' visited markets to enquire about prices for their products in 2019 to 63% had changed to doing it 'every second month' or 'almost every week' in 2022. This in harmony with different interviews with FMS members and Village Agents, who explained in detail about their frequent market trips, both physical communication and with identified buyers by mobile phone. They have developed clear and quite simple market information strategies.

Brief quotes from short interviews of FMS members in White Nile: What do you know about how a market functions? How often do you do research in the market about prices, quantities etc. about crops you grow?

- *I ask the men, who go to the market about the prices*
- *Before the FMS training I never did it, now I do*
- *I investigate prices and other things in the livestock market and the crop market by mobile phone*

- *When I want to know prices, I contact three or four different markets*
- *When I plan to plant, I contact people in the markets, who know prices*
- *I go myself to different markets to collect information including prices*
- *Sometimes I go the market and look and ask about everything, sometimes I use mobile phone*
- *I go to Rabak market to know prices, or I use the phone*

See also the interview with Zainab in West Darfur:

Asked about what benefit she gets from being in an FMS group, Zainab answered that she has got more market knowledge. She studies prices weekly. She contacts traders to get the information. She said: *'We get a better price if we add value to the crops, such as grading. We always sell directly the end-consumer. Mostly I sell independently'*.

She feels she has become more confident in the market. She avoids middlemen (who actually most often are women!). *'They give us low prices. They want power. Now we have confidence. We know everything. We make relationships with the traders, we can trust'*.

The change in responses from 2019 to 2022 as well as the quotes above are a direct result of the FMS training and its key aim of urging farmers to go and investigate how the market functions by themselves. The responses show that the farmers benefit from doing exactly that.

6. Value Addition and Collective Marketing

Below find the responses to the question a: How often I grade and pack my crop before sales?

16 FMS groups in White Nile

| | 2019 | 2022 |
|------------------------|--------------|--------------|
| Never | 44,4% | 5,1% |
| Once | 28,5% | 14,6% |
| Two-three times | 6,6% | 15,4% |
| Several times | 8,6% | 30,7% |
| Very often | 4,3% | 20,1% |
| Always | 7,6% | 28,7% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------------|--------------|--------------|
| Never | 88,9% | 0.0% |
| Once | 11,1% | 5,6% |
| Two-three times | 5,6% | 2,8% |
| Several times | 0,0% | 22.2% |
| Very often | 0,0% | 38,9% |
| Always | 8,3% | 36,1% |

Regarding **value addition** a similar improvement was shown in both White Nile and West Darfur. The responses clearly show that most farmers did not do value addition before their FMS training, while most of them do it '*several times, very often or always*' in 2022 after FMS training. Value addition is an equally important subject in the FMS training as the advise to farmers to investigate prices and standards at the market by themselves.

The type of value addition, which the farmers report are primarily grading and drying. Many crops can be dried and sold as powder. Especially okra is a popular crop, which is dried and ground to powder both in White Nile and West Darfur. Doing value addition to crops before selling them and to engage in collective marketing are seen as two of the most important ways of increasing income from better marketing.

These two activities are not difficult for smallholder farmers to do. Some already did this before the FMS training especially in White Nile. Brief quotes from interviews in White Nile on this question: What are you doing to your crops before taking them to market, so that they look good and attractive?

- *I arrange my crop and clean it*
- *We clean the crop and for vegetables, we grade them*
- *We arrange the crop in a good way*
- *With okra we grade it and then sell it*
- *We clean the seed (from harvested wheat) removing bad grains. We put in sacks of 50 kg*
- *We store our crop in normal storage, but it may be affected by insects*
- *I arrange the crop and pack it*

The responses to the statement b: 'My participation in collective marketing' were the following.

16 FMS groups in White Nile

| | 2019 | 2022 |
|------------------------|-------------|--------------|
| Never | 57% | 13,6% |
| Once | 23,2% | 12,3% |
| Two-three times | 9,2% | 14,6% |
| Several times | 4,8% | 27,9% |
| Very often | 2,7% | 18.5% |
| Always | 3,1% | 13,0% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------------|--------------|--------------|
| Never | 75,6% | 10.5% |
| Once | 12,2% | 15,8% |
| Two-three times | 4,9% | 5,3% |
| Several times | 0% | 23,7% |
| Very often | 0% | 26,3% |
| Always | 7.3% | 18,4% |

The results from the 16 FMS groups in White Nile show that more than 30% of them, only did collective marketing in 2019 '*once or two-three times*', while a bigger number (almost 60%) are doing it in 2022 '*several times*' to '*always*'. In West Darfur 76% had never done collective marketing in 2019, while in 2022 a similar percentage as in White Nile are doing it now.

Brief quotes from FMS member interviews in White Nile: Can you tell of an occasion when you have done collective marketing?

- *Yes, one or two persons ask about prices in the market, then when they come back we collect our crop and we go together*
- *We did collective marketing last season because the sorghum crop was low, the demand was high and they sent a car*

- *We collect our crop in one portion and a car-owner takes it to the market and sell it for us*
- *We were 20 women who did it ourselves. We pooled our okra crop and sold it for 4,800 SDG per 30 kg, we paid 400 SDG per 30 kg for transport and earned 4,400 SDG per bag. We distributed the money amongst us*
- *We were six women who collected 10 bags of wheat. We sent a person to enquire about the price. Then we rented a car and sold the wheat. We distributed the money amongst us*
- *I have not done collective marketing. The farmers need to sell at different time*
- *We did not do collective marketing till now*

Also the in-depth interview with Zainab gave an example on how the farmers did their collective marketing: She said: *'Mostly I sell independently. But we are also sometimes selling together. We could be 5 persons taking our crops to the market together. We rent a Tuk Tuk or a horse cart and load our bags. Two of us go along the market and sell the crops. They bring back the money, which we share.'*

It is clear from the responses and interviews that the farmers in White Nile and in West Darfur have responded in the same way on the advantage of doing collective marketing. This is without any interaction between the FMS trainers in the two states. So, this comes purely as a farmer initiative.

In that connection it is worth mentioning as shown above, that there is a widespread perception of collective marketing being dependent on cooperatives⁴². This is not the case. Actually, in the FMS training manuals the logic is presented as the reverse: Collective marketing may develop in such a way, that farmers decide to work collectively and eventually form cooperatives or another type of farmer groups/organisations. There are too many examples in Africa of unviable cooperatives and other farmer organisations being the result of NGO or Government initiatives.

⁴² This viewpoint is clearly shared by the authors of the TMP evaluation report described earlier. This report actually strongly advocates for the formation of cooperatives as they say that farmers *'are looking for external technical and administrative support guidance to help them form cooperative societies'*.

7. Agriculture

Under this heading three questions/issues are raised. a: What is the volume of my agricultural production?

16 FMS groups in White Nile

| | 2019 | 2022 |
|------------------|--------------|--------------|
| Very bad | 21,0% | 1,9% |
| Not good | 32,7% | 6,1% |
| Average | 28,3% | 22,8% |
| Quite OK | 8,3% | 15,1% |
| Good | 6,0% | 33,3% |
| Very good | 3,7% | 20,8% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------|--------------|--------------|
| Very bad | 7,3% | 0,0% |
| Not good | 43,9% | 5,3% |
| Average | 34,1% | 2,6% |
| Quite OK | 12,2% | 18,4% |
| Good | 2,4% | 44,7% |
| Very good | 0,0% | 28,9% |

The answers show a change from ‘*not good*’ to ‘*good*’ in both States. This change could have many causes, including – as expected the influence of FFS activities, since many FMS members in White Nile also are FFS members, while in West Darfur virtually all FMS members are also FFS members. There may be an influence of the very intense FFS activities, especially in White Nile, where 159 FFS season long groups were formed in the period from 2019 to 2021.

The ‘Self-Monitoring tool’, which as mentioned is part of the FMS training is relevant here. It was included for getting an idea of productivity and income over the period from 2019 to 2022. 38 volunteer farmers, who participated in the many meetings with FMS groups agreed to write their production figures from the harvest in 2019 compared with the latest harvest in 2021. They would remember the template from their training, but maybe not the figures they entered.

Extraction of production data from farmers may not always be useful because of their reluctance to tell their exact production and income. With that in mind it was still pursued. And samples of 38 self-monitoring tools were collected from the meetings with FMS groups. This proved that there was a sizable increase in productivity of the sorghum crop from 2019 to 2022. With reluctance of farmers to give out production data, they would most likely report an under-estimation of the harvested crop. So, when this exercise showed that **55% of 38 farmers** reported productivity growth, this may probably be estimated as a minimum. In reality the %-age may have been higher.

But apart from farmer bias, production and productivity data from rainfed agriculture would be very strongly associated with the actual rainfall, its time and duration⁴³. And for both rainfed and irrigated agriculture soil preparation, timely planting, attacks by insects and birds play a big role for the result of the harvest (Locusts have been a huge problem in the Horn of Africa in 2019-21). Use of heat resistant seed and the use of fertilizer also play a role. All these factors – and even more – can affect the harvest both negatively and positively. The average 37,2% productivity growth of the sample of 38 farmer records does however correspond to the positive tendency revealed by the self-assessment exercise.

b :My knowledge about traditional agriculture

16 FMS groups in White Nile

| | 2019 | 2022 |
|------------------|--------------|--------------|
| Very bad | 30,8% | 2,1% |
| Not good | 22,6% | 7,9% |
| Average | 23,9% | 16,4% |
| Quite OK | 9,8% | 16,1% |
| Good | 7,2% | 31,8% |
| Very good | 5,6% | 25,8% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------|--------------|--------------|
| Very bad | 12,5% | 2,7% |
| Not good | 17,5% | 18,9% |
| Average | 37,5% | 13,5% |
| Quite OK | 10,0% | 5,4% |
| Good | 20,0% | 29,7% |
| Very good | 2,5% | 29,7% |

The response to this statement shows an increase from 2019 to 2022. This could easily be a result of the FFS activities, because the starting point of most FFS groups tend to be problems related to their traditional methods of cultivation. FFS is based on experimental learning, so to learn more about traditional methods does not contradict the positive tendencies revealed from question a.

a) My knowledge about new agricultural technologies and methods

16 FMS groups in White Nile

| | 2019 | 2022 |
|------------------|-------------|-------------|
| Very bad | 50,2 | 4,4% |
| Not good | 17,3 | 6,4 |
| Average | 18,6 | 22,8 |
| Quite OK | 6,8 | 19,6 |
| Good | 3,7 | 22,8 |
| Very good | 3,4% | 24% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|------------------|-------------|--------------|
| Very bad | 52,5 | 2,5% |
| Not good | 30,0 | 2,5% |
| Average | 7,5 | 7,5% |
| Quite OK | 0% | 25,0% |
| Good | 5,0% | 40,0% |
| Very good | 5,0% | 22,5% |

⁴³ The impact of rains and climate change are so important in the Horn of Africa in general that a year-to-year comparison on productivity may not be a result of e.g changes in productivity due to better agronomic practices. May just be a reflection in external conditions, including the overarching importance on the rainfall as a key factor.

More than 50% of the respondents agreed that their knowledge of new technologies and methods in 2019 was 'very bad'. But by 2022, knowledge had improved to 47% in White Nile and 63% in West Darfur now reported as 'good' or 'very good'. This improvement is probably primarily caused by the FFS activities. Increased productivity of agriculture is a key objective for almost all interventions to assist smallholder farmers, also FFS. The use of new agricultural technologies and methods were reported in the end-line evaluation reports in both States.

Brief quotes from short interviews in White Nile to the question: Are you well aware about traditional agriculture – and what about new agricultural technology and methods

- *I know about the new methods, but also the traditional*
- *Yes, we know about traditional and new agricultural technology: fertilizer. Good seed and growing at the good time*
- *I have small idea about the new agriculture and new methods, but know more about the traditional ones*
- *Yes, I have a small plot with okra crop. I know the agricultural technology like tillage and fertilizers and harvesting methods raise the yield by fertilizer and other package*
- *When the work is done manually the yield is less, while with technology the yield is higher*
- *I have an idea about traditional agriculture. In the rainy season we grow sorghum, cow pea and sesame. I have good technology like fertilizer, tillage, harvesting at the time of harvest*
- *Before we did not know, but after training we know*
- *I have a good idea about both traditional and technology agriculture*

And a comment by SCEED in West Darfur: *One of the limitation to cultivating large lands are the lack of tractors when it comes to land preparation.*

8. Climate Change and Agricultural Production

a: 'The effect of climate change on my agricultural productions'

FMS groups in White Nile

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 30,3% | 1,8% |
| A little bit | 23,9% | 8,5% |
| Not high | 13,5% | 26,2% |
| Average | 11,8% | 20,6% |
| High | 13,5% | 22,9% |
| Very high | 7,1% | 20,0% |

2 FMS groups in West Darfur

| | 2019 | 2022 |
|---------------------|--------------|--------------|
| Very low | 7,1% | 0,0% |
| A little bit | 47,6% | 2,6% |
| Not high | 16,7% | 18,4% |
| Average | 11,9% | 23,7% |
| High | 9,5% | 28,9% |
| Very high | 7,1% | 26,3% |

Climate change is increasingly experienced by all African smallholder farmers – not only in the Horn of Africa. In this template the respondents were asked to compare the effect of climate change in 2019 and 2022. And it is not surprising that while there is a tendency to say that the

effect has increased is very clear, the difference is much less outspoken than for other questions. These responses are unrelated to FFS or FMS activities. Climate change has been known by farmers in Sudan for many years. The spread of the desert southwards has been observed for more than a generation, not least in Darfur, where the water resources are reducing – an element of the various conflicts in Darfur in the last 20 years.

A view by SCEED in West Darfur:

Improved seeds are recommended to face the climate change – because of shortage of rain