



Technical Cooperation Progress Report (TCPR)

104240/104489/104654:IRIS Project No.
ZAM/13/04/SID- ZAM/13/08/SID- ZAM/13/09/SID: TC
Symbol
SIDA :Donor
CO LUSAKA :Administrative Unit

Country or Region: ZAMBIA

Title: DECENT JOBS FOR YOUTH AND IMPROVED FOOD SECURITY THROUGH THE DEVELOPMENT OF SUSTAINABLE RURAL ENTERPRISES (YAPASA)

P&B Outcome: Zambia DWCP Priority 3: More and better employment opportunities created, with focus on targeted groups

Report: Annual For projects reporting on an annual basis, all sections must be completed and the report must cover the previous 12 months.
 6-month For projects reporting twice per year, all sections must be completed and the report must cover the previous 6 months.
 Quarterly For projects reporting on a quarterly basis, every second and fourth report (i.e. twice a year) should complete all sections. The other reports may leave out sections A3 and A4.

Sequence: 1st report 2nd report 3rd report 4th report 5th report 6th report 7th report 8th report 9th report 10th report 11th report

Related project(s): NOT APPLICABLE

Reporting Information	
Reporting period:	From January 2017 to December 2017
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EXECUTIVE SUMMARY

The project report covers the period January to December 2017. This has been the third full year of implementation and initiatives have been at replication and scale stages with continued consolidation of the project strategy with specific project interventions.

Enabling business environment

Further to the work done in 2016 on establishing forums to influence policy decisions for Soya (SoPAG) and Aquaculture (ADAZ) the project intensified efforts on promoting awareness of business opportunities at district level and on refining the business models of both soya and aquaculture outgrowing operations. With much effort placed on the functioning of input supply chains and the provision of technical skills transfer in good agricultural practices and basic agribusiness skills.

Yapasa took the learning from a hatchery management training in Bangkok in 2016 and supported the Department of Fisheries to coordinate the localisation of the knowledge acquired into a set of hatchery and nursery management guidelines and then disseminated the learning through appropriate forums. It also worked with the National Union of Small-scale Farmers of Zambia to produce a much simplified farmers' agribusiness manual and facilitator's guide.

The project aimed to spread further learning and experiences within the local and international market systems development community by setting up the Yapasa website www.yapasa.org, uploading the TV programmes on Youth in Agribusiness developed in 2016 together with a range of learning reports and profiling young "agripreneurs" as role models. In addition, the project concentrated on building youth inclusive business models with nine partners in soya outgrowing and with two in aquaculture.

More young people respond to economic opportunities

The third wave soya out grower models described in the 2016 report ran their course amidst a very challenging and much delayed marketing season, generating even more learning. The year ended with the project reducing its market facilitation role and letting the companies proceed into the 2017/18 season on their own. By the end of 2017 the project had supported a total of 1,853 small scale soya farmers and facilitated their entry into commercial soya farming. These additional 1,853 soya enterprises (of which 46% were youth owned and 25% were female owned) supported in 2016/17 season, brought the cumulative total to 2,504 in soya since the start of the project. An additional 46 aquaculture enterprises were supported - 100% youth owned and 43% female owned - bringing the cumulative total in aquaculture to 105 and making a total 2,717 enterprises supported. In addition a further 1,030 potential or existing fish farming entrepreneurs were exposed to information on business potential in aquaculture and a total of 108 fish farmers bought fingerlings as a result of Yapasa support to DoF and private hatcheries. In summary, a cumulative total of 3,747 farm level enterprises were reached in some way since the start of the project.

The Aquaculture out grower model introduced to Zambia by the project has finally reached maturity amid continuing constraints in the supply of quality fingerlings of native species, although initial harvests have been better than predicted, showing much promise and an increased interest from other actors wanting to copy the model. Fingerling supply remains an issue that the project still has to tackle through sharing the evidence of smallholder demand with potential hatchery businesses. The project has put much effort into promoting uptake of quality feed, resulting in one of the feed producers reducing its packaging size to make it more accessible to smallholders and other companies are also beginning to target the smallholder market in the districts where these promotions have taken place.

Out grower models continuing into 2018 without project support

Whilst the marketing season left much to be desired in 2017 actual production among smallholder farmers enrolled in the outgrower schemes was generally encouraging enough for most of the companies with which the project was piloting the models to continue on their own the following year. Although most schemes are initially scaled down, the fact that they are continuing is evidence that the models are sustainable and a period of consolidation prior to future expansion is only to be expected. The enormous amount of effort invested into adapting the online platform for farm input voucher management (FIVMS) did not leave a functioning input credit system accessible by private businesses as expected, but the system has been fully taken on by Ministry of Agriculture as the Zambia Integrated Agricultural Information System, as part of the Conservation Agriculture Scaling Up (CASU) exit strategy and is being widely used by agro dealers nationwide for selling government subsidised inputs.

Sector Coordination - shifting to Farm Enterprise approach

Since the volatility of the soya sector in 2017 exposed the risks of concentrating on a particular commodity (which in particular makes young farmers very vulnerable) and since the early fish harvests also began to meet with market challenges the project determined to make a shift towards enabling diversified farm enterprise and having secured a 1 year cost extension from SIDA, decided to embark on a process of designing four new interventions for development and implementation in 2018: a) Aggregation for End markets; b) Last mile inputs distribution; c) supply of fish and horticulture produce to the mine canteens of Solwezi; and d) the functioning of municipal open markets. All these interventions are based on collaborative arrangements between a range of market players within a particular location rather than a particular subsector.

1. Budget / Planning Information

Project budget in USD: 7,681,219.40

Project duration in months: 52 MONTHS

Project start date:

Planned
AUGUST 2013

Actual
AUGUST 2013

Project end date:

Planned
AUGUST, 2017

Actual
DECEMBER, 2018

2. NARRATIVE REPORT

2.1. Perspectives on current status

Briefly explain the overall status of project implementation, making reference to progress under each immediate objective.

This report covers the period January to December 2017 and is in relation to the revised [logframe of August 2016](#).

Objective 1: A more enabling business environment for young entrepreneurs to start and formalise businesses in soybean and aquaculture.

This objective covers three outputs: the policy and regulatory environment; stakeholder exposure to knowledge; and awareness of business opportunities in the sectors.

Output 1.1 : Policy, legal and regulatory review conducted to promote youth enterprise development in soybean and aquaculture value chains

The Yapasa project has a target to create youth employment through rural enterprise development. Both are entirely consistent with the Seventh National Development Plan. Through the establishment of the policy dialogue forums SoPAG and ADAZ, and their subsequent analyses of the regulatory and supportive environments, no specific areas for policy reform were identified. Rather, the forums identified governance factors that affect very differently the soya and aquaculture subsectors and proceeded to work around these with project support. The government of Zambia remains committed to economic diversification away from dependence on mining and the policies are supportive of this aim.

Yet the main grain and legumes subsectors were severely stifled in 2017 due to un-coordinated actions and trade uncertainties created by a ban on maize exports in May 2016, associated trade restrictions imposed administratively on other crops and the ensuing difficulties faced by export traders in gaining export certificates. All these processes are explored in depth in a report commissioned by Yapasa and Food Trade ESA in early 2017: [Impact of import and export bans in agricultural markets and its implications on smallholder farmers: a case of soybeans](#) as the effects of these restrictions were causing havoc in the local soybean trading market and negatively impacting the ability of Yapasa partners to market their crops. See discussion below under Soya outgrowing.

In Aquaculture the key constraining policy is the restriction of which fish species can be farmed in which river basins. Such restrictions are in place for sound environmental reasons and are highly unlikely to be changed in the foreseeable future. During the course of 2017 Yapasa assisted ADAZ to finalize their [strategic plan](#) for the Association, which contained several policy recommendations, for example introducing a system for regulating and certifying private hatcheries (to maintain quality standards) and lobbying for youth and smallholder access to government aquaculture development funds, which the Association took up through meetings at Ministry level.

Output 1.2: Increased stakeholder exposure and knowledge on international best practice in supporting young entrepreneurs in aquaculture and soybeans value chains

Improved knowledge of quality fingerling production and distribution methods acquired by the 11 participants who attended training at the Asian Institute of Technology in Bangkok in 2016 were adopted in 3 government and 2 private hatcheries over the course of the year. The knowledge of these methods was further disseminated through production of a [hatchery and nursery management manual](#) and follow up [training for nursery managers](#). There were also 2 exchange visits in aquaculture where farmers from Solwezi area visited Rivendell Fish Farm in Kitwe and those from Luapula visited Miracle Farms in Kasama.

Having a large multinational input supplier on board for the soya farming initiatives helped to expose the soya farmers to international best practice in producing soybeans. In addition each of the 9 Soya outgrower operating partners were supported to arrange exchange visits for their lead farmers to more commercially oriented soya farming operations for example in Mkushi farming block.

Output 1.3 : Social marketing campaigns conducted to disseminate information of business opportunities in soya and aquaculture value chain

Early in 2017 Yapasa had supported ADAZ to design and facilitate a series of district level Aquaculture Business Opportunity Seminars. The [ABOS](#) were purposely held in the target districts to raise awareness of local opportunities. They took the form of trade fairs with input suppliers and support service providers present as well as potential fish farmers. Each was promoted through some social marketing (radio, community grapevine etc) as were the field days for soybean farming and fish feed demonstrations, all of which were open to the public.

Yapasa created and launched a website: www.yapasa.org during the year. Though aimed primarily at the donor and Market Systems Development community, it also has messaging appropriate for MSMEs interested in inclusive business and for potential young agri/aqua-preneurs – e.g. the 13 part TV series made by NAIS in 2016 and other success stories.

Aquaculture Feed and Fingerling demonstration models were discussed at a [learning workshop](#) for various stakeholders held in Kitwe in December and a similar [lesson sharing workshop](#) about the soya outgrowing schemes was held in October in Lusaka. Both aimed to promote awareness of business opportunities even if not actually held in the target locations. In addition many individual meetings with MSMEs in the target locations to discuss potential youth inclusive business models continued to be held by project staff, particularly towards the end of the year as we began to develop new interventions in inputs distribution and aggregation. Although no mass media broadcasts were directly facilitated by Yapasa project during 2017 a number of partner activities were publicized through radio adverts or reported on through short radio programmes – e.g. ABOS in Solwezi and Kasempa Districts – see above mentioned ABOS report.

Objective 2: More young people respond to economic opportunities in soybeans and aquaculture market systems

This objective also covers three outputs: Development of effective input supply systems; Increased supply of non-financial business development support services; and technical skills development for young entrepreneurs.

Within this objective the first output of a robust input supply system is covered by two project interventions in the two subsectors. The other two outputs are combined into youth inclusive outgrowing operations with embedded services.

Output 2.1: Effective and efficient input supply systems for the value chains developed.

Soya inputs

In the 2016/17 season Yapasa entered into service contracts with 9 companies to develop and implement outgrower operations based on a youth-inclusive business model with embedded services of a) provision of quality inputs on credit; b) provision of agribusiness and technical training in GAP and post-harvest handling and c) provision of aggregation services for a formal market. These models are described in detail under Output 2.2 and 2.3 below. The rationale was to expand with adjusted models based on the learning from the second phase pilots of the 2015-16 season and to roll out the models to several larger businesses with a large multinational input supplier with national coverage, as the scale agent. This learning and adaptation process was presented at an ILO Lab event in Geneva in February aimed at increasing understanding of the MSD approach among the donor community.

In the previous season the Yapasa project had agreed significant credit guarantees with the input supplier in order to get the company on board at short notice and to supply inputs in bulk to the three partner companies as single entities for onward distribution to their farmers. Under this model the input supplier had viewed the outgrower operators only as agro-dealers and extended similar credit terms managed through use of the FIVMS developed by FAO under the CASU project. Put simply, three partners each had one E-voucher card to “swipe” for their inputs at an existing recognized agro dealership, even though the inputs were delivered directly to the outgrower operator.

However for the 2016/17 season the project aimed for a more robust partnership with the input supplier in order to pilot a different input supply model bridging the gap between young farmers and their ability to access inputs finance. The input supplier had expressed interest in targeting smallholder farmer segment through a model of community agro dealers and could be assisted to do this through the outgrower operators as a channel for individual farmer input loans. Since the input supplier did not know much about the potential risk they faced the de-risking factor proposed by Yapasa was to use the FIVMS at an individual farmer level rather than at agro-dealer level as it had been used the previous year. I.e. every farmer now had an individual e-voucher card to be loaded with an inputs credit voucher as well, which they would “swipe” to redeem inputs from their outgrower operator. The outgrower operators had now registered as agro dealers in order for them to be able to receive inputs from the input supplier and had received either a POS machine or an NFC capable smartphone against which the card could be tapped.

FIVMS now contained a credit management module. This [more complex modelling](#) was what Yapasa project was piloting along with some other projects including WFP and it was described in detail in the 2016 annual report. The model however faced a number of challenges described below in sections 2.2 and 7 and ultimately, the model that survived through the season was a much slimmed down version of the original intention. Indeed it was capable of recording the precise inputs and their values distributed to farmers and gave all parties, the outgrower operators, the input supplier and Yapasa oversight of the total loan value sitting with individual farmers and aggregated responsibility lying with the outgrower operators. However the credit management module that CASU had hoped we would test had become redundant as distribution of cards and swiping for inputs received did not happen until very late in the season and it was impractical to retrospectively try to capture all deposits or other payments made from the partner's offline records. At the learning workshop soya outgrower operators generally agreed that the rigours of the FIVMS system had been in some ways beneficial to their businesses in spite of not having achieved the full traceability of all cash flows.

Seed, feed and crop protection inputs were supplied to all partners on varying models of input credit. The main input supplier initially negotiated 50% risk share with partners (50% deposit and 50% payment after crop sale – except for Makombe Farms 25% deposit and 75% payment after crop sale) the input supplier expected all partners to secure forward contracts for their produce and even offered to help in brokering these agreements. Two outgrower operators were promoting soya growing with slightly different input regimes which necessitated other inputs: fertilizers to Makombe and Wamis only on 100% credit default guarantee from Yapasa and some other crop protection inputs to Wamis only on 75% credit default guarantee but all were distributed through the FIVMS for proper verification.

Aqua inputs - Feed

Early in the year Yapasa forged a partnership with Olympic Milling Ltd one of the leading producers of quality livestock feed in Zambia based in Ndola, Copperbelt. Olympic had been producing and distributing other stock feed until 2016 when it had ventured into fish feed production. While most feed companies were targeting their product at commercial producers, Olympic had its eye on serving the smallholder segment of the market. The main constraint identified was limited perception of the benefits of using quality feed among those smallholders and although Olympic believed there could be latent demand out there this had not yet translated into much in the way of sales. Yapasa agreed to support Olympic to promote and publicise its feed through running in-pond demonstrations and to do this also teamed up with companies who had proven networks in the districts in areas with high potential numbers of smallholder fish farmers and who could identify experienced smallholder fish farmers who could host the demonstrations in their existing ponds. ADSEK Enterprises, an Agrodealer based in Mansa town and Mbowe Fisheries Ltd, a fish producer and aggregator/trader based in Nchelenge town were engaged to cover Luapula province and the Department of Fisheries was engaged in NorthWestern. A total of 14 sites were initially identified and since the demonstrations would also showcase the benefits of using quality reverse-sex fingerlings all 14 lead farmers were to be established fish farmers with at least four ponds, two to test performance of quality feed on sex-reversed and mixed-sex fingerlings and the other two being used as control under farmers' normal feed management practices.

Since it was clearly in Olympic's business interests the company readily agreed to provide feed for the demonstrations (except for those run by Mbowe Fisheries who already had a preference for Farm Feed on their own commercial ponds – although the company later switched over to Olympic feed as it became easier to source through a local Olympic outlet). The supply of fingerlings for these demonstrations was more problematic and Yapasa had to agree to pay for them as it was not a business advantage to Olympic, nor any of the other businesses. The fingerlings were sourced mainly from DoF hatcheries in Solwezi, Mwekera and Mansa with some others being sourced from Rivendell in Kitwe (for Solwezi demos) and Great Lakes Products in Mpulungu (for Mbala).

The results of these demonstrations were shared at a [workshop in Kitwe](#) in December 2017 and whilst there were mixed results across and within the three geographies, the overall results showed an encouraging increase in growth rates under quality feed, both in reverse-sexed and mixed sex fingerlings.

Olympic, encouraged by the results being seen, determined to expand and do more demonstrations by engaging an agrodealer in North Western, Sparrow General Dealers, who would have more of a commercial interest than the department of Fisheries and thus be more likely to put effort into promoting the use of the feed rather than treating the demonstrations as a field experiment. By late November 2017 Olympic and the agrodealers had seen a growing interest in or at least queries about quality feed but this had in few cases resulted in actual sales. Feedback from potential fish farmer customers was that the 25kg bags on offer were too large and too expensive and were likely to expire before they were used up. Olympic responded by introducing packaging in 5kg and 10kg bags to be released in the market in early 2018 and Yapasa agreed to also support roll out of more demonstrations to other areas.

Aqua inputs - Fingerlings

By the end of 2016 Yapasa had realised that insufficient attention had been paid to development of the supply of fingerlings of native species. This was critical if young entrepreneurs were to take up improved pond production methods in the geographical areas where the commercially popular and available *Oreochromis Niloticus* was banned – ie in Northwestern, Luapula and Northern Provinces. To try and address this Yapasa needed to encourage hatcheries to produce more of the native species. At that time Rivendell farm in Kitwe was the only private hatchery producing *O. Andersonii* in relatively small quantities and unfortunately was not convinced by Yapasa's arguments that there was latent demand that would respond to increased production. The government Citizens Economic Empowerment Commission (CEEC), that was also mandated to promote small-scale aquaculture in Zambia, was at that time calling for business proposals to establish private hatcheries across the country but was getting virtually no applicants. In the absence of any other private hatcheries and yet with Vyazala Crops pond model and many feed demonstrations needing fingerlings, Yapasa turned to the Government research stations at Mwekera, Fyngoli and Solwezi to ramp up production and awarded a grant to improve production capacity up to 400,000 *Andersonii* and *Macrochir* fingerlings per month at peak season. There was an ambitious aim of turning these three units into commercially driven hatcheries, with assurances from within the Department of Fisheries that new systems allowed them to revolve funds from fingerling sales back into further inputs and overheads costs rather than having to submit to central treasury and then apply for subventions. A grant awarded in June 2017 was based on the seed capital required to increase numbers of brood stock and all other inputs, including casual staff to manage the production up to 2,000,000 with break-even calculations and cash flow projections. By September it was clear that the project was well behind schedule and would be unlikely to achieve the ambitious growth target and that the project had been over hopeful that the research stations could transition to a commercial orientation. Still the supply of native fingerlings was inadequate to meet demand.

Meanwhile Yapasa had opened up conversations with a number of potential producers about an improved last mile distribution model. The project's experiences of Palabana Fisheries in Chongwe delivering fingerlings to Vyazala Crops ponds in Solwezi with many challenges over such a large distance led the project to believe that there was a business opportunity in hatcheries supplying fry (which are easier to transport with fewer casualties) to small local nursery ponds where enterprising young fish farmers could raise them to fingerling size and sell on to other small farmers in their locality. However, to do this it was necessary to identify private hatcheries who were interested in such a model, which emerged from findings from a training at the Asian Institute of Technology in Bangkok where the project had sent 11 private and government hatchery staff for training in December 2016.

All participants had agreed to act as resource persons on their return and were tasked with [developing a manual](#). As the identification of potential hatchery and nursery operators proceeded 25 of them were brought together at NARDC in Mwekera in September for a [training](#) using the manual.

As stated above Rivendell had not shown interest, but the project identified Chiwila Farms, also in Kitwe, which had a newly built hatchery set to start production of fry/fingerlings of native species *O. Andersonii*. The company intended to produce 600,000 to 800,000 sex reversed fingerlings in the breeding season, having seen an opportunity to supply in the Copperbelt province in light of growing demand of *O. Andersonii* species among small holder fish farmers in several districts where small holder fish farmers depended entirely on the overstretched capacity of Mwekera Research Station (or just buying low quality fingerlings from their neighbours) and Yapasa agreed to assist in building their capacity to service this potential market. Due to transport costs it is uneconomic to transport less than 500-800 fingerlings for a long distance and so the proposed nursery model appealed and Chiwila farms agreed in September to work with Yapasa to establish three nurseries as a pilot. Unfortunately, by the end of the year progress at Chiwila farms had been slow and no nurseries had been supplied.

Yapasa wanted to take a similar approach in Luapula province but there were no private hatcheries there and the government research station at Fyngoli was also failing to produce sufficient fingerlings to trigger much demand. Having failed to identify any potential private hatchery investors an alternative approach was to identify and directly support an existing and experienced farmer in Sindazi Wiza Enterprises to establish a nursery. Sindazi Wiza was farming nearly 1.5 Ha of ponds and, due to the shortage of quality fingerlings, was using fingerlings from their existing ponds but aspired to set up a hatchery in due course. In the meantime Sindazi Wiza agreed in September to set up a nursery within its farm in Kawambwa to service demand from farmers in neighbouring districts if Yapasa could link them backwards to another hatchery in Copperbelt – in this case Calm Sky Group in Mufulira was identified. In addition the project identified Pakeyeloba General Dealers in Solwezi who had just established a hatchery facility with capacity to produce 2.3 million *O. Andersonii* fingerlings in a single breeding season and was interested in the nursery model to improve its outreach. Yapasa agreed to support this process and by the end of December Pakeyeloba was almost set to supply fry to three nurseries in North Western.

Output 2.2: Increased supply of non-financial business development services to support youth enterprises and Output 2.3: Technical skills of young entrepreneurs to use production and processing technologies improved

In the 2016/17 season Yapasa agreed service contracts with 9 companies to develop and implement soya outgrower operations on a youth-inclusive business model with embedded services of provision of quality inputs

on credit (described above); provision of agribusiness and technical training in GAP and post-harvest handling; and provision of aggregation services for a formal market. There were also the two companies piloting similar models with young fish farmers (the first of their kind in Zambia) as described in the 2016 report and discussed in more detail below.

The companies Yapasa signed up for the soya schemes were a variety of different types of business: Adoka General Dealers (agro-dealer); Regitech Enterprises Ltd (Soya processor); Wind of Change Enterprises (NGO/Social enterprise); Jedo Commodities Ltd (Aggregator); Makombe Farms Ltd (Commercial Soya farm); Wamis Agro (seed multiplication company); Solwezi District Farmers Association (membership body); Mpongwe Bulima Organic Growers Cooperative Society (Co-op); Manyika Development Ltd (Local trader).

Such a range of companies having very different profiles would provide the opportunity of testing the basic concepts of what makes a good outgrower scheme as a vehicle for the provision of the embedded services in several different settings although the same basic model was being used from the previous season. Each of the companies was free to choose their operational districts, preferred numbers and profiles of outgrowers (although Yapasa strongly encouraged a youth and female focus), methods of grouping under “lead farmers” or “community agro dealers” and to develop the contracts with their recruited farmers and Yapasa staff were on hand to advise on the clauses such that they would be fair and transparent, especially around how prices for produce would be set as the marketing season got underway, and also on the amount of training and technical support each farmer could expect. The businesses were supported to do basic soil testing so that farmers would be able to make an informed decision on which combinations of inputs to choose to get on credit through the FIVMS. Yapasa was to provide training for the businesses, their loan officers and lead farmers on the use of FIVMS and to support in the registration of farmers within the system. Yapasa supported the technical and business training of lead farmers (either contracted out to local BDS providers if they could be found or provided in-house by the company staff themselves) and also study tours for lead farmers to expose them to commercial scale soya production on larger farms and in some instances supported farmer exchange visits between districts under the same operator.

Demonstration plots were set up under the lead farmers or CADS and these were the venues of technical training by the input companies. At a minimum there were visits from these technical staff at the three key stages of growing the soya crop, at field preparation and planting, at flowering or podding and finally approaching harvest. These were done in conjunction with or in addition to 2 field days, at key crop development stages, open to the public and targeting young farmers. At the end of the season the outgrower operators supported the harvest of the crop, provided threshing and aggregation services and transported the crop to the final market for which they had been strongly encouraged to sign forward contracts with appropriate grain traders.

The Soya [impact assessment report](#) shows that 55% of the soybean farmers within the Yapasa supported schemes reported some measure of profitability from their soybean farming activities. However, none reported profitability sufficient to generate a financial return above the minimum wage for agricultural labourers. This is not surprising given the crash in the soya price in 2017 and although the record high prices witnessed the previous year were extraordinary it is realistic to expect that had the market performed at the average level seen over the last few years a more reasonable outcome would have been seen.

At company level results were also mixed. Two of the out-grower operators, Regitech and Mpongwe Bulima Cooperative, reported making a profit from the enterprise whereas WAMIS Agro for example reported a great improvement in the business and some smaller partners like Wind of Change and Adoka reported a serious loss from the business. It is no surprise that those companies whose business models were more aligned to their core operations seem to have performed best and are the ones most likely to continue operations in future.

The business model at Makombe Farms deserves some extra attention. The model was aimed primarily at promoting apprenticeship in mechanized agricultural activities whereby the large commercial farm growing 200Ha of its own soya crop was both anchor and mentor to 10 emerging farmers (growing 10Ha each) which in turn were each to provide mentoring support to 10 small scale farmers starting at 1 Ha each. Time and effort was invested in establishing an on-farm training unit and an apprentice manual/workbook during the end of 2016. The initial plan was that the apprentice farmers would purchase farm equipment including tractors and boom sprayers etc. on hire purchase agreements with a commercial bank, and these would be used on their own fields and also to provide mechanized services to the smaller farmers all under the mentorship of the commercial farm. It had genuinely been expected that the commercial farm could draw on their credit record with the bank to enable this, but ultimately the bank remained unconvinced and the mechanisation idea had to be abandoned other than Makombe Farm itself providing some services directly to the emergent apprentice farmers and also bringing it its own harvest and threshing equipment at the end of the season to try and gather most of the crop sales.

The offline record keeping by the Makombe farmers was not fully shared with Yapasa staff and since the credit management module in FIVMS was not being used, and thus was not generating all the crop harvest and sales data, the project was unable to determine the average productivity among these farmers. However through

anecdotal evidence and eyewitness inspections of several fields during the course of the year it can be assumed that the majority of the farmers had very good yields with a few exceptions who faced adverse weather events (and their inputs losses were partially covered by the weather indexed inputs insurance taken out by FAO).

WAMIS is another interesting partnership where the outgrower operation model was applied to community based seed multiplication of soybeans. Although it was done at small scale the company has now well established themselves into this business and is aiming to expand the operation in coming years. Given that the market price for seed is substantially higher than that for grain this makes for a more profitable business all round.

In the aquaculture subsector one partner, Palabana Fisheries, moved the centre of its operations from Chongwe, just east of Lusaka, to Chirundu on the Lower Zambezi where water availability and ambient temperatures were more conducive to operation of a hatchery. In the process Palabana more or less abandoned its interest in and support to the young pond farmers it had mobilised in Kanakantapa and they were left to harvest and market their fish on their own in their immediate locality. However a small group of three young farmers within the area have set themselves up to provide support services of pond construction and maintenance. The partnership, which had encountered numerous setbacks, was formally closed after final delivery of inputs that had already been credited to the young farmers. Meanwhile up in Solwezi Vyazala Crops Ltd expanded its pond outgrower scheme with a further 46 young farmers and despite the challenges of having been let down several times by Palabana on the delivery of fingerlings had eventually managed to stock all ponds (with permissible species from Rivendell Enterprises near Kitwe), source sufficient feed and work with the young farmers to produce some significant results. Although production schedules were quite delayed after the difficulties in sourcing sufficient fingerlings, the farmers were able to begin harvesting in December and Vyazala Crops Ltd was concluding an agreement for supply of fresh fish to All Terrain Services, a company contracted to supply and run canteens in some of the mines around Solwezi

Overall, Yapasa was able to directly reach 1,899 farm enterprises in soya and aquaculture in the 2016/17 season plus an additional 1138 indirectly in aquaculture (1030 attending ABOS and 108 buying fingerlings from Yapasa supported hatcheries and nurseries). Out of the total number of soya and aqua farm enterprises directly reached, 48% were under the age of 35 (27% women).

55% of the soya farmers improved their enterprise performance with increased profit. Average income from just over 1Ha of soya crop was ZMW 872 with an average productivity of 1.2MT/Ha which is above the often quoted national smallholder average of 0.8MT/Ha.

Despite the poor average 2017 soya price of only ZMW 2.54 per kg (compared to 2016 high of ZMW 5.2/kg) 95% of the farmers have indicated that they aim to continue soya farming in future.

Yapasa has a remit to create jobs for youth. To count jobs the project uses a Full Time Equivalent (FTE) job proxy indicator, based on 236 days farming 1 Ha of main crop = 1 job. The total number of jobs created during the year 2017 was 1,709 out of which 38% were for young people (of which 20% for women). Total jobs created for women in all age groups was 338.

Having ascertained the number of jobs (FTE) created the project then used the 2012 minimum wage for general workers (ZMW 1,132 including allowances) as a proxy measure for whether they were decent jobs. Given the average incomes realised from soya in the 2017 season none of the jobs created could thus be classified.

In the previous season Yapasa had some concerns about the depth and quality of agribusiness training provided by the outgrower operators and this year worked with NUSFAZ to develop a [simplified agribusiness manual](#) and [facilitators guide](#) that could be used within the outgrower schemes. The [subsequent TOT](#) was aimed at 30 lead farmers and extension staff of Yapasa partners among others. However we do not yet have evidence of the participants going on to use the manual in their training of farmers in the schemes or outside. The soya [impact assessment report](#) indicates that 77% of the 1,853 soybean farmers participating in the soya outgrower schemes received some form of agribusiness management/economics of production training, like simple gross margins analysis. In aquaculture the figure was 77 fish farmers, including 30 who had enrolled in 2016 and continued to receive training. In addition 1030 farmers attending fish feed demonstrations and a further 108 buying fingerlings from nurseries were at least exposed to some basic economics of fish farming if not formal training.

These figures cover both technical agronomic or production training and basic agribusiness training as they were bundled together by the outgrower operators in both soya and aquaculture. Likewise the basic exposure to fish production practices through the demonstration field days was bundled with the production economics of using commercial feed.

Objective 3: Value chain development partners along the Soy Beans and Aquaculture value chains collaborate and coordinate effectively and efficiently

Yapasa continued to work in support of SOPAG and in conjunction with Food Trade East and Southern Africa (a DfID funded regional project with similar interests) supported a validation workshop for the two studies mentioned above under Output 1.1.

Coordination between the input suppliers, the soya outgrowing companies mentioned above and their contracted outgrowers remained good throughout the season, with their involvement in field days, on-site farmer training and around the marketing initiatives.

ADAZ maintains stakeholder coordination forums established in previous periods and worked well together with Yong Emerging Farmers Initiative (YEFI) to implement the ABOS described above. In addition as the year progressed Yapasa worked with a small group of agrodealers, fish feed and fingerling suppliers, together with staff of the Department of Fisheries to run the series of demonstrations described above under aquaculture inputs. The interim [monitoring report](#) for the fish feed demonstrations shows early signs of uptake among smallholder fish farmers and market response from feed companies.

Working with National Union of Smallholder Farmers in Zambia (NUSFAZ) in an effort to improve coordination of activities targeting smallholder farmers was not so much establishing a forum as strengthening an existing one. The aim was to raise the profile of NUSFAZ to become a “go-to” body for smallholder farmer support, although it is hard to say what actual change has been made in small scale farmers perceptions of their union as a result in the absence of any perception study. The very much simplified [Agribusiness Training Manual](#) and [Facilitators guide](#) developed by NUSFAZ with ILO support and for which NUSFAZ share IPR led to a [training of 30 trainers](#) towards the latter half of the year.

Yapasa supported the Department of Fisheries to hold a stakeholder coordination meeting that was supposed to help them establish an ongoing information network among the various projects and businesses but this seems to have not taken off organically and will require more effort from Yapasa.

2.2 Issues and actions

Examine the main **challenges** facing the delivery of outputs and achievement of immediate objectives.

These can be issues that have already been encountered or are foreseen.

Two key challenges affected Yapasa’s work in 2017. In the soya sector it was the immensely complicated market environment. As mentioned in the policy discussion in section 2.1 above, the soya (and other grain) market performed poorly in 2017 due to the lingering effects of a maize export ban in 2016. Although there had been no formal restriction publicly or officially imposed on soya, many traders had found it very difficult to get issued with export permits as officials delayed decisions amid the uncertainties that year. Thus most traders entered 2017 with quantities carried over from the previous season and in the midst of a global surplus of soya, even when export permits did get issued, the international market prices were so low that the traders were extremely reluctant to sign forward contracts with the companies Yapasa was working with. As it turned out even the two companies who managed to negotiate forward contracts (Makombe and Mpongwe Bulima) found that the trading companies reneged on the contracts at marketing time. Yapasa found the market limping along for many months, when, in a normal season it would have all been over by August in 2017 the companies were still aggregating in October and final crop sales reports had not been received even by December.

Smallholders were hanging on to their crop, hoping for market prices to improve, thus making it very difficult for the soya outgrowing companies to aggregate the crop or even know how much production had been. Yapasa had supplied all the partners with simple monitoring templates on Excel spreadsheets but for the partners the challenge of getting information from their farmers was simply too great. Farmers who were desperate for cash were selling to passing briefcase traders where they could be found, others who could perhaps afford to wait, began to sell to the government Food Reserve Agency, even though they knew they were unlikely to get paid for the crop delivered until well into the following year. Many more farmers decided to keep portions of their crop harvests as seed for the following year in the hopes of planting it and getting a good crop to sell at a better price in 2018. As a result many of the outgrower companies tried to focus on aggregating only sufficient crop to pay off the input credits but few managed even this and there was in effect a massive default. Without the use of the credit management module in FIVMS, Yapasa had to rely on off-line reconciliations of farmer loans for inputs redeemed and the input suppliers were getting increasingly frustrated as the year neared its end and few or no further repayments were coming in from the 9 companies.

In the Aquaculture sector the challenge of insufficient supply of fingerlings of native species continued to slow the pace of activity. Despite the best efforts of the project to work with the Department of Fisheries to ramp up production at three of its research stations the supply only increased fractionally over the year, affecting the ability of our pond outgrower partners to stock their ponds and also constraining the development of the feed demonstrations, some of which had to reduce to showcasing only the effects of quality feed on mixed sex local fingerlings.

<p>Explain corrective actions taken or to be taken regarding implementation challenges, delayed delivery, and the low probability of achieving immediate objectives.</p>	<p>Modifications to the soya inputs supply model</p> <p>By December 2016 Yapasa partners had still not finalised their farmer registers and so Yapasa had been unable to issue the smart cards for the farmers to swipe for their inputs. In addition Yapasa had had to agree with input suppliers that the project would guarantee all deposit defaults in order for them to have sufficient confidence to release the inputs just in time for the planting season. And so we entered 2017 with the partners holding their farmer registers and records of any deposits secured offline and a promise to the input suppliers to firm up MoUs detailing the deposit default mechanisms.</p> <p>Early in the year the model faced yet another challenge. Even after inputs had been distributed to farmers and seed had been planted the partners were still submitting conflicting farmer lists. There were examples of inputs having been signed for in other farmer's names, even some incidences of standing crop being transferred to other farmers. Even more frustrating for the project there were differences in the lists between loan officers/Lead farmers and the outgrower managers. Meanwhile many of the partners were experiencing internet challenges or faulty log-in credentials that prevented them from entering their farmers directly into the FIVMS platform. The Yapasa team decided to assist with data entry and tagging so that the farmers could be identified as "Yapasa farmers" in the system and one staff member was dedicated for most of the month of May to support the data entry efforts. Eventually lists were finally agreed as late as June and many farmers in the system had to be untagged or re-entered. All these delays in finalising the farmer lists delayed the production of the e-voucher cards which needed to be run in district level batches, but finally boxes of individually named and numbered cards appeared on the desks of Yapasa team and a lengthy distribution mission took off in July, even as farmers were harvesting their crops. Even during the distribution process further issues were being uncovered where farmers National Registration Card numbers did not match those printed on the cards or where there was insufficient cell network for the smartphones to activate the PIN numbers and for "swiping" to take place.</p> <p>At the beginning of the season the Yapasa team had thought it had done very well to negotiate with the input supplier a deal on input credit that was covered 50% by the outgrowing companies and their partners and left the input supplier covering the other 50%. However at a very early stage, as described below under section 7, Lessons learned, it had become apparent that many youth were being side-lined due to the deposit requirement and Yapasa had agreed to top up the partners' 50%. By the time full analysis of the inputs redemption through FIVMS (and the offline reconciliations) had been completed, Yapasa had to pay almost \$50,000 to the input supplier against that commitment made earlier in the season in order to get the inputs released. As the marketing season dragged and the final loan reconciliations spilled over into 2018 it became clear that the default was even higher than originally feared, despite the overall impression that production had been quite good and farmers were simply renegeing on their responsibilities. Seeking some closure on the matter Yapasa eventually paid the input supplier an additional \$126,000 to clear the debts left by the farmers, especially as we knew that we were not supporting outgrower schemes again in 2017/18 season and thus would not have opportunity to redress the imbalances. At least the project was able to communicate to the companies that their farmers had, in effect entered the 2017/18 season with no carried forward debt from the 2016/17 season caused by their involvement in the Yapasa supported schemes.</p> <p>Re-emphasizing private hatcheries after realising government would not deliver</p> <p>At the beginning of the year with pond fish outgrower partners struggling to get fingerlings and having failed to find private hatcheries willing to increase supplies (as they had not yet seen the market opportunity) Yapasa had reluctantly agreed to give a direct grant to the Department of Fisheries to ramp up production in their existing research station facilities. We knew this was not an ideal situation for a market systems development programme but it was a pragmatic, though last resort, approach to getting a quick supply of fingerlings while we waited for the private sector to develop. However a short while into the grant period, it became obvious that the research stations were not going to achieve the 2,000,000 fingerling production target nor were they revolving the funds from any sales as promised and thus would not be able to turn the fingerling production units into a commercially viable business. Thus as described above Yapasa turned again to identifying private hatcheries that could be supported, partnering with Chiwila Farms and Pakeyeloba during the latter part of the year. However, although it had been built into the strategy for the year it remained a challenge to identify more companies that had an interest, let alone had already invested, in hatcheries. This remains a challenge to tackle in 2018.</p>
<p>Briefly explain any reformulations of project immediate objectives or outputs, and their corresponding indicators and targets.</p>	<p>Having struggled through 2016 with supply constraints in both feed and fingerlings Yapasa had realised that the access to aquaculture inputs intervention required to be split into two – one for fingerlings and one for feed as the constraints and opportunities were substantially different in each area. Yapasa ended that year kicking off the two new interventions that carried forward into 2017, focussing on promotion of quality fingerlings and promotion of quality feed in North Western and Luapula provinces. Although there were two separate interventions there was crossover between the two through on-farm demonstrations.</p> <p>As a result of the soya market dysfunctions of the 2016/17 season and having secured an agreement from SIDA for a 1 year cost extension, Yapasa made a strategic shift for 2018 – to focus less on production and more on aggregation for end markets as the primary intervention driver in and beyond the soya sector. In addition, due to the realisation</p>

	<p>that soya was such a volatile commodity and that young farmers were even more vulnerable to the risks, there was also a conscious shift towards diversifying the modelling and focusing more on farm enterprise in general than engaging in a single crop. As a result Yapasa also broadened the access to inputs intervention to include horticultural inputs that would yield quicker gains and more regular income, thus appealing more to youths.</p> <p>In aquaculture with early signs of uptake of quality feed and some very early indication that farmers were at least beginning to appreciate quality fingerlings it was decided to continue and expand the feed demonstrations into other districts. Some of the agro dealers the project was talking to about establishing last mile distribution mechanisms through networks of community agro dealers, were also interested to start supplying fingerlings, which had recently been included in the government's Farm Input Subsidy Programme (FISP) and so it would remain important to identify potential hatcheries and nurseries for support.</p> <p>Yapasa also discovered that, toward the end of the year, Vyazala Crops Ltd had at last begun to harvest fish from its ponds and was beginning to market them. However Vyazala was struggling to meet the requirements of All Terrain Services (ATS) who are contracted to supply and run the mine canteens and was also struggling to sell them on the open market in Solwezi, even though they had expected a large unmet demand. In order to address this situation another new intervention was designed initially around the supply of fish to the mine canteens but then being opened more broadly into food supplies to the mine canteens to encompass horticultural produce as well, thus having synergy with the proposed last mile inputs distribution intervention.</p> <p>Further it was agreed to at least explore opportunities in the functioning of municipal markets as other end markets for horticultural produce (and perhaps fish too) so as to have some market pull for the young farmers entering into horticultural production as a result of the last mile inputs distribution proposals.</p>
<p>Briefly describe any evaluations, project reviews, self-assessments or undertaken, including follow-up to findings and recommendations.</p>	<p>The project continued to work on the recommendations made during the 2016 mid-term evaluation. No other evaluations, either internal or external were conducted during 2017. However a planning retreat was held in Livingstone in March 2017 and the regular Portfolio Review meetings where we examined progress against the intervention results chains were maintained.</p>

3. Summary Outputs			
OUTPUT DELIVERY ^a			
Output and Target	Percent ^b complete	Output status	Output summary (1000 characters maximum)
Immediate Objective 1: Improved enabling business environment for young entrepreneurs to start and formalize businesses in soy bean and aquaculture value chains with adequate information on business opportunities in the value chains			
Output 1.1 : Policy, legal and regulatory review conducted to promote youth enterprise development in soybean and aquaculture value chains			
1.1.1 Number of activities aimed at influencing changes in policy, legal and regulatory provisions for soya and aquaculture value chains (Target 5)	100%	On schedule	As mentioned above in section 2.1 Yapasa, through the policy level forums it supported, SoPAG and ADAZ, had not identified any specific policy areas that needed to be changed. The focus of the work was in trying to influence how the policies were implemented and regulations applied. In collaboration with the DFID-funded Foodtrade East and Southern Africa project, Yapasa supported SoPAG to undertake two studies: Impact of import and export bans in agricultural markets and its implications on smallholder farmers: a case of soybeans and Implications of the introduction of the crop tax/levy being implemented by district authorities . A Validation workshop was held in June with a range of stakeholders and this yielded some valid recommendations. Using the results from the Import/Export Ban study, SOPAG developed a media brief (advisory document) on the cost of import/export ban on soybeans with aim to reach policy makers. IAPRI used evidence from the study and elsewhere in a presentation at the 4th ReNAPRI Stakeholders conference in Cape Town at the end of November attended by the Yapasa CTA. Yapasa assisted ADAZ to finalize their strategic plan for the Association which contained several policy recommendations which the Association took up through meetings at Ministry level. The final Aquaculture Business Opportunity Seminars report showed that among the 494 participants in the ABOS the proportion of youth was at least 40.2% and can be counted as youth inclusive. 31.3% were female. The very much simplified Agribusiness Training Manual and Facilitators guide developed by NUSFAZ with ILO support and for which NUSFAZ share IPR led to a training of 30 trainers . The interim monitoring report for the fish feed demonstrations shows early signs of uptake among smallholder fish farmers and market response from feed companies.
1.1.2 # of events undertaken to promote youth entrepreneurship in soya and aquaculture activities (Target 6)	100%		
Output 1.2: Increased stakeholder exposure and knowledge on international best practice in supporting young entrepreneurs in aquaculture and soybeans value chains			
1.2.1 No. of Study tours conducted (Target: 2)	100%	On schedule	No formal study tour was conducted during the year 2017. However, each of the 9 Soya outgrower operating partners were supported to arrange exchange visits for their lead farmers to more commercially oriented soya farming operations. There were also 2 exchange visits in aquaculture, farmers from Solwezi area visited Rivendell Fish Farm in Kitwe and those from Luapula visited Miracle Farms in Kasama. Improved quality fingerling production and distribution methods that were learned by the 11 participants who attended AIT in 2016 were adopted in 3 government and 2 private hatcheries over the course of the year. The knowledge was spread through production of a hatchery and nursery management manual and follow up training for nursery managers
1.2.2 No of good practice approaches adopted/adapted (Target: 3)	50%		
Output 1.3 : Social marketing campaigns conducted to disseminate information of business opportunities in soya and aquaculture value chain			

^a Based on the Implementation Plan

^b Figures are based on self-assessment

1.3.1 # of different types of Social Marketing campaigns conducted (target: 4)	75%	On schedule	<p>The district level ABOS each had some social marketing (radio, community grapevine etc) as did the field days for soybean farming and fish feed demonstrations, all of which were open to the public.</p> <p>The creation of the Yapasa website: www.yapasa.org, though aimed primarily at the donor and Market Systems Development community, also has messaging appropriate for MSMEs interested in inclusive business and for potential young agri/aqua-preneurs – eg the 13 part TV series made in 2016 and other success stories.</p> <p>The ABOS were purposely held in the target districts to raise awareness of local opportunities. They took the form of trade fairs with input suppliers and support service providers present as well as potential fish farmers. Aquaculture Feed and Fingerling demonstration models learning workshop held in Kitwe in December and Soya Outgrower lesson sharing workshop held in October both aimed to promote awareness of business opportunities even if not actually held in the target locations. In addition many individual meetings with MSMEs in the target locations to discuss potential youth inclusive business models continued to be held by project staff, particularly towards the end of the year as we began to develop new interventions in inputs distribution and aggregation. Although no mass media broadcasts were directly facilitated by Yapasa project a number of partner activities were publicized through radio adverts or reported on through short radio programmes – eg ABOS in Solwezi and Kasempa Districts – see above mentioned ABOS report.</p> <p>Mass media broadcast was done in the year 2016 and not envisaged during the year 2017 except for the ones undertaken by the partners on their own right</p>
1.3.2 # dialogue/workshop conducted in the targeted locations to promote the awareness on business opportunities in soya and aquaculture value chains. (target 10)	50%		
1.3.3 # of mass media broadcast on the issues/opportunities related to the soya/aqua value chains			
Immediate Objective 2: More young people respond to economic opportunities in soy beans and aquaculture market systems			
Output 2.1: Effective and efficient input supply systems for the value chains developed			
2.1.1 # of Soy Beans Value chain and support service actors serving young entrepreneurs in targeted sectors (Target 10)	100%	On schedule	<p>Yapasa achieved its target for Soya sector under this indicator with a 9 different types of businesses operating outgrow schemes in Soya and 1 input company provided service to 1853 farmers (46.6% youth and 25.5% female) to varying degrees of success – see project narrative in Section 2 above. Towards the end of the year 7 of the 9 operators had begun mobilizing farmers and distributing soya inputs for the 2017/18 season on their own, in an adapted way albeit at a smaller scale, and 2 of these, Mpongwe Co-op and Regitech, had been selected for further Yapasa support among others in 2018 through the proposed intervention on Aggregation for End markets.</p> <p>However, Yapasa has also met the target number of support service actors in aquaculture although some potential hatchery and nursery partners fell off as they were not quite ready to make the required investments. See further detail in the main narrative in Section 2 above. Two private and three government hatcheries are producing and distributing fingerlings through 4 nursery operators (so far to 108 fish farmers). In addition 1 feed company and 3 Agrodealers are promoting quality fish feed (so far to 1030 farmers) in North-Western and Luapula.</p>
2.1.2 # of Aqua Value chain and support service actors established and successfully serving young entrepreneurs in targeted sectors (Target: 10)	100%		
Output 2.2: Increased supply of non-financial business development services to support youth enterprises			
2.2.1 # of individuals trained as trainers for BDS service provision (target: 15)	100%	On schedule	<p>Yapasa worked with National Union of Smallholder Farmers in Zambia (NUSFAZ) to develop a simplified manual that could be used within the outgrower schemes. The subsequent TOT was aimed at 30 lead farmers and extension staff of Yapasa partners among others. However we do not yet have any evidence that the participants later went on to use the manual in their training of farmers in the schemes or outside. That said the impact assessment report indicates that 77% of Soybean farmers (of which 46.6% youth) received some form of agribusiness management/economics of production training, however basic, like simple gross margins, as part of their participation in the soya outgrower schemes as did 77 fish farmers (100% youth and including 30 who had enrolled in 2016 and continued to receive training) . In addition the</p>
2.2.2 # of BDS-trainers successfully servicing young entrepreneurs in the targeted sectors (Target: 10)	0		
2.2.3 # of young entrepreneurs	75%		

attending business start up and business management training (Target: 1000)			1030 farmers attending fish feed demonstrations were at least exposed to some basic economics of fish farming if not formal training.
Output 2.3: Technical skills of young entrepreneurs to use production and processing technologies improved			
2.3.1 # of young entrepreneurs receiving production skills training in soy bean and aqua value chains (Target 1,000)	75%	On schedule	For this objective the figures are the same as above because the technical agronomic or production training was bundled together with the agribusiness training by the outgrower operators in both soya and aquaculture. Likewise the basic exposure to fish production practices through the demonstration field days was bundled with the production economics of using commercial feed.
Immediate Objective 3: <i>Value chain development partners along the Soy Beans and Aquaculture value chains collaborate and coordinate effectively and efficiently</i>			
Output 3.1: Mechanisms for coordination for soybean and aquaculture value chain development established			
3.1.1 # of value chain stakeholder coordination forums established (Target: 2)	100%	Complete	The continued work in support of SOPAG (including the validation workshop for the two studies mentioned above under Output 1.1) and ADAZ maintains stakeholder coordination forums established in previous periods. Working with NUSFAZ in an effort to improve coordination of activities targeting smallholder farmers was not so much establishing a forum as strengthening an existing one. The aim being to raise the profile of NUSFAZ to support it to become a go-to body for smallholder farmer support. Supporting the Department of Fisheries to hold a stakeholder coordination meeting was supposed to help them establish an ongoing information network among the various projects and businesses but this seems to have not taken off organically and will require more effort from Yapasa.
3.1.2 # of value chain dialogue events held in each sector (Target: 3 per sector)	50%		
OUTPUT CLASSIFICATION ^c			
<input checked="" type="checkbox"/> Highly satisfactory Implementation of almost all (>80%) outputs is on schedule as envisaged in the implementation plan and almost all (>80%) indicator milestones have been met.		<input type="checkbox"/> Satisfactory Implementation of the majority (60-80%) of outputs is on schedule as envisaged in the implementation plan and the majority (60-80%) of indicator milestones have been met.	
<input type="checkbox"/> Unsatisfactory Some (40-60%) outputs are being implemented on schedule as envisaged in the implementation plan and/or only some (40-60%) indicator milestones have been met.		<input type="checkbox"/> Very unsatisfactory Few (<40%) outputs are being implemented on schedule as envisaged in the implementation plan and/or only a few (<40%) indicator milestones have been met.	
The original log frame was revised later in the year 2016. Key emphasis was put on place to reach out to the large number of enterprises and young people while still maintaining focus on the enabling environment and coordination functions. Input supply for the aquaculture and soybean sector was a key focus. The demand side stimulation activities was undertaken through the technology transfer including the training, demonstration and other associated activities. On the macro level, social marketing, stakeholder coordination and other associated activities were prioritized. The Log frame and breakdown of the outputs and objectives were categorized accordingly.			

^c This is a self-assessment

4. Summary Immediate Objectives**IMMEDIATE OBJECTIVE ACHIEVEMENT ^d**

Indicator	Baseline	2016/17 Indicator Milestone ^e	Target (end-of-project total)	Immediate Objective summary
Immediate Objective 1: Improved enabling business environment for young entrepreneurs to start and formalize businesses in soy bean and aquaculture value chains with adequate information on business opportunities in the value chains				
1.1 Percentage increase in no. of young people and stakeholders indicating improved ease of doing business along selected value chains	N/A	No annual target set	30%	Baseline for this indicator was not established. However, a rapid market survey done by YEFI the young Emerging Farmers Initiative for Yapasa in August 2017 reveals that initial investment in the business and availability of farming inputs in the rural areas are still seen as the most significant constraint by 63% and 69% of the youths respectively. Interestingly output market generated the least concern as an issue - 51% of the participants - followed by knowledge at 42% of participants.
1.2 % increase in number of target beneficiaries with improved attitude toward business opportunities in rural areas	N/A	No annual target set	20%	Baseline for this indicator was also not established, however the same rapid market survey shows only 52% of the interviewed group of farmers indicated good prospects of engaging in Soybean sector compared to 58% that saw a future in farming maize or other staples. This is hardly surprising given the timing of the survey when the farmers were seeing their profitability eroded by the crash in soya prices that season. Interestingly 54% of farmers indicated Aquaculture as a potential business opportunity but Livestock and Vegetable farming both came out top at 77%
Immediate Objective 2: More young people respond to economic opportunities in soy beans and aquaculture market systems				
2.1 # of young entrepreneurs starting enterprise activities within the soy and fish market systems	0	No annual target set	3,000	A total of 1853 soya enterprises (of which 46% were youth owned and 25% were female owned) were supported in 2016/17 season, bringing the cumulative total to 2,504 in soya since the project began An additional 46 aquaculture enterprises were supported -100% youth owned and 43% female owned bringing the cumulative total in aquaculture to 105. Also a total of 108 fish farmers bought fingerlings (and therefore have started enterprise activity) as a result of Yapasa support to DoF and private hatcheries so in total 2,717 individuals have started enterprise activities since the start of the project. In addition a further 1,030 potential or existing fish farming entrepreneurs gained exposure to information on business potential in aquaculture (although we do not know yet how many of these have gone on to actually begin enterprises) and thus a cumulative total of 3,747 farm level enterprises were supported in some way since the start of the project.
2.2 # of existing youth enterprises whose sales volumes increase after receiving support or linked with services providers	0	No annual target set	2,000	Under Yapasa all the above farm enterprises are assumed to be entering into commercial production of soya or fish for the first time (assuming any earlier sales were more opportunistic) and thus all have seen an increase in sales volumes regardless of actual profitability. Very few fish sales were achieved by the end of 2017 and Yapasa does not yet have records of them, although by May 2018 more than half of the 77 ponds in the Vyazala scheme were harvested and sold with average yields of

^d Based on the M&E plan^e Targets were based on the revised log frame and impact projection for 2016 and 2017 in the intervention guide (see annex)

				500kg per pond. However it should be safe to say that at least a fair proportion of the 2,404 soya farmers (551 in 2016 and 1853 in 2017 and not including the 100 in 2015 who all made a loss) made reasonable sales (to be ascertained during final impact assessment)
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Immediate Objective 3: Value chain development partners along the Soy Beans and Aquaculture sectors collaborate and coordinate effectively and efficiently (cross-cutting)

3.1	Existence of effective and functional sector development collaboration mechanisms	0	No annual target set	2	The primary mechanisms for coordinating development collaboration along the soya and aquaculture value chains supported by Yapasa are the Soya policy action group (SoPAG) and the Aquaculture Development Association of Zambia (ADAZ). That said the role of SoPAG is limited to coordination of stakeholders around policy issues rather than day to day sector player collaboration and such coordination tends to take place when there is a particular policy issue threatening the industry as was the case with the export restrictions in 2016. ADAZ, on the other hand is a membership association of industry players and concerns itself as much with business collaboration as with policy issues. The establishment of both entities was achieved earlier in the project and no formative activity was done in the reporting year.
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IMMEDIATE OBJECTIVE ACHIEVEMENT CLASSIFICATION ^f

<input checked="" type="checkbox"/>	Highly probable Almost all (>80%) reporting period milestones have been met. Based on the indicators, it is highly probable all immediate objectives will be achieved by the end of the project.	<input type="checkbox"/>	Probable The majority (60-80%) of reporting period milestones have been met. Based on the indicators, it is probable the majority of immediate objectives will be achieved.
<input type="checkbox"/>	Low probability Some (40-60%) reporting period milestones have been. Progress is being made on the immediate objectives but based on the indicators only some immediate objectives will be achieved.	<input type="checkbox"/>	Improbable Few (<40%) reporting period milestones have been met. Limited progress is being made on the immediate objectives and based on the indicators only a few immediate objectives will be achieved.

Briefly explain the major factors taken into account to justify the Immediate Objective classification and provide any other comments (2000 characters maximum):

The targets that can immediately be counted are those for enterprises started and enterprises with improved sales volumes. Since the project has already achieved 90% of the 3,000 enterprises started target and already exceeded the 2000 target for increased sales volumes it is fairly certain that with the extra enterprise figures emanating from 2018 these will comfortably be exceeded. For the perception indicators no baseline was set. In late 2018 a full retrospective perception survey will ask young farmers on how their perceptions of agribusiness have changed over the last 5 years, however in the meantime the perception figures quoted above are from a temperature taking exercise conducted in 2017 and these show relatively mid-level perceptions as would be expected at that stage of the project. Targets for the third objective are already met. With all the above in mind it is reasonable to expect that the project will meet 80% or more of the targets by December 2018.

5. Risks and Assumptions			
RISK TRACKING [§]			
Key Assumptions	Risk level		Describe current risk and any mitigation measures (1000 characters maximum)
	Start-of-project / previous reporting period	Current	
Partner market players will select youths (as out growers of soybean under out grower operation schemes or within their wider aggregation schemes)	Yellow (Medium Risk)	Green (low risk)	Because of the challenges of securing deposits from young farmers for inputs in outgrowing schemes, the project decided to focus rather on the aggregation mechanisms and market pull. Thus the aggregating partners are looking to buy crop from anybody that has produced it (without having contracted them to grow it, thus removing the need to provide inputs and avoiding any issues of side selling) and have expressly agreed to look for younger farmers. The risk is still there but the pool of farmers to select from is wider and the chances of youths being excluded is much less
Partners in aquaculture will make necessary investments to adopt practical market innovations in good time – especially in supply of fingerlings and feed.	Green (low risk)	Yellow (Medium Risk)	In spite of supportive government policy support there continues to be little investment in smallholder aquaculture especially in the project areas. The entry of Skretting as a large feed supplier in Southern Province has not necessarily added much value to smallholders as they too focus on supplying large commercial players. Yapasa partners in fingerling production and feed promotion had not, by year end, lived up to expectations and it is as if many are waiting for the AFDB funded Zambia Aquaculture Enterprise Development Programme to kick off properly in 2018.
There is a growing number of development actors working in the aquaculture value chain. Early in the project this was not the case and the assumption was that most of the changes in the sector/value chain would be attributable to the Project. Genuine attribution to Yapasa is thus now threatened.	Green (low risk)	Green (low risk)	The African Development Bank funded \$40m Zambia Aquaculture Enterprise Development Project has now begun implementation although it is not yet clear to Yapasa what level of collaboration it will make with other organizations and what will be the actual results. This will further reduce the chances of Yapasa claiming attribution for many of the outcomes and as stated last year ours will be more correctly framed as contribution.
Input companies are willing to develop fully fledged last mile delivery systems for agricultural inputs using CADs	Green (low risk)	Green (low risk)	Agro dealers seem to have more interest in building up their own networks of CADs rather than them being representatives of specific input supply companies. This of course is better for the farmers as they can access a range of inputs from several companies through the one agro dealer network. However the lack of a significant scale agent means that scale will have to be achieved by replication of the model by many small agro dealers rather than expansion of one model by any one company. The project is still trying to identify a common entity that could trigger such copying in during 2018.
Farm Input Voucher Management System Developed by FAO will be tested and adjusted by Yapasa and will be promoted to input providers	Red (High Risk)	n/a	Since the project has moved on from supporting models that depend on the large scale provision of inputs this is no longer a risk factor. The FIVMS has found an institutional home in the ministry

[§] Based on Risk Register

and out grower operators for their independent use after the project			of Agriculture as Zambia Integrated Agricultural Information Management System (ZIAMIS). It is not yet useable by private companies in the way that FIVMS was being used under Yapasa but is fully useable by government and donor funded projects for accurately recording the disbursement of inputs under the e-voucher schemes. Farmers must pay a ZMW400 deposit to activate their cards and then can redeem up to a value of ZMW2,100 (the 100 goes to weather index insurance) against inputs of their choice including legume seed and even fish fingerlings. As such agrodealers across the country have geared up to be e-voucher suppliers.
The programme will meet its impact targets within the given time frame	Red (High Risk)	Yellow (Medium Risk)	The original targets set by Yapasa have not been met at the end of 2017, the original project period. However having gained a 1 year cost extension there is now a greater chance that the current shortfalls can be made up at least on a cumulative basis. In terms of outreach the numbers of enterprises supported is progressing well and even the number of enterprises showing some improvement has grown. Where the project still falls short is on decent jobs where so much of the evidence boils down to income sufficient to lift the household sustainably above the poverty line. Yapasa, however, continues to believe that the changes in market system facilitated by the project will benefit a large number of beneficiaries in agricultural value chains in the years to come and intends to demonstrate this through success stories during the last months of the project.
Local partners have the required in house capacity to facilitate data collection in line with our stringent DCED standards	Green (low risk)	Green (low risk)	Although this is still an issue to some extent, the impact assessment strategy of the project will nullify the significance of the risk
Private sector partners ready and willing to partner with the programme to undertake interventions	Green (low risk)	Green (low risk)	The risk is insignificant in the current stage as stakeholders are well informed on the approach Yapasa is taking on and value of it to work in the market system
Local financial institutions are willing and able to offer financial products to rural youth	Green (low risk)	n/a	Yapasa moved its focus for 2018 away from production models and into market pull models, although promoting last mile delivery of inputs is still on the cards this intervention does not require finance to participate. In addition the project aims now to encourage partners to select youths from within existing savings groups thus mobilizing substantial amounts of funds currently held by such groups without the need for formal bank finance.
The UN Joint programme management arrangements enable the programme to move quickly in its procurement of required services	Green (low risk)	Green (low risk)	The required financial and administrative processes in both FAO and ILO still do not fully enable the agility and speed of response for efficient market systems development (MSD) but now that all staff are familiar with what is required the project has managed to find an appropriate balance and plan ahead accordingly. Essentially the approach has moved to one where if a long and convoluted process is likely to derail an intervention than that is most likely not an intervention appropriate to a UN

<p>The programme will find suitable partners to work with in all targeted provinces</p>	<p>Green (low risk)</p>	<p>Green (low risk)</p>	<p>implemented project or the activities are more likely to be outsourced to the private sector partners.</p> <p>Part of the risk here is that the targeted provinces (chosen because they are traditionally less well served, under the UN leave no-one behind approach) may be where markets are thinner and may not have an ideally wide variety of partners with sufficient capacity. In North Western for example there is substantial economic activity due to the mines but many partners lack capacity – Yapasa is commissioning local BDS suppliers to assess capacity of potential partners and establish business development plans for those partners. In Luapula there are very few larger scale market actors and although the market is far from thin it does not contain many suitable partners which means we are less likely to be able to fulfil competitive selection requirements but rather proactively identify appropriate and capable partners.</p>
<p>Project partners adopt the business practice changes and adapt them to suit their organizational needs whether or not to work with more young entrepreneurs going forward</p>	<p>N/A</p>	<p>Medium risk</p>	<p>One of the inherent assumptions of MSD projects is that the innovation in the market system will sustain and be replicated with a multiplier effect in the number of target beneficiaries. However, owing to the pilot nature of the intervention and time to effectively adopt it by the market players, the adaptation and replication of the initiatives is always in question. ILO and FAO through follow on programs will keep monitoring these initiatives and the project has also adopted a strategy to sustain the innovation:</p> <ul style="list-style-type: none"> • Engage government agencies to sustain innovation and house information on project achievements. This is particularly the case in aquaculture where DoF is one of the key implementing partners • Engage associations as scale agents and keepers of information on project achievements. Business membership organizations including NUSFAZ and ADAZ are engaged in this respect • Multiple layers of market actors including those of input companies, their local distributors, outgrow operators and aggregators in the case of soybean were engaged in the spreading and sustaining innovations

6. Performance issues

Check key reasons for shortfalls in Output Delivery, Output Quality and Immediate Objective Achievement:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Implementing partner (constituents or private entities) performance ^h | <input type="checkbox"/> ILO (Office and staff) performance |
| <input type="checkbox"/> Difficulties in inter-agency coordination | <input type="checkbox"/> Inadequate cost estimates |
| <input type="checkbox"/> Lack of constituent or implementing partner | <input checked="" type="checkbox"/> Inadequate project design |

^h This is described in the narrative in terms of business incentive and drive and the tensions of matching project imperative to achieve targets within short timeframes and private sector circumspection on investing in new business developments, they develop at their own pace.

- commitment/ownership
- ILO policy changes
- Budget processing (revision/disbursement etc.) delays
- Community/political opposition
- Other - please specify:
- Counterpart funding shortfall
- Unexpected change in external environment
- HR difficulties (recruitment, contracts)

7. Lessons learned

Describe any lessons, positive and negative, that have been learned during project implementation. Organise the lessons using the headings below.

Context and implementing environment

Macro-economic environment has a direct bearing on the project performance. In the specific case of the soya market the volatility of global and local soya prices had severe effects on the final outcome of the third wave of soya outgrowing models. However these in turn were affected in an uncertain policy environment, not due to the policies themselves but rather by the adhoc and inconsistent way that the policies were implemented. As pointed out by SoPAG in their research, export restrictions are often used as measures to protect food reserves and yet usually have adverse effects on the markets for other commodities, especially where they are implemented without evidence from the markets being fully taken into account. The resulting crash in soya prices had so many knock on effects as is described in detail above but it is not hard to imagine how the performance might have been very different indeed in a stable market with a consistent and coherent policy environment.

The high interest rates charged by formal financial institutions combined with their loan processing requirements impacted on the original vision of the project to develop effective linkage between young rural producers and financial institutions. Access to finance and the cost of that capital once accessed remains a severe constraint to all enterprises

Project strategy and design

The Market Systems Development approach adopted by the project was relatively new in the Zambian context. It was also new in the organizational context of ILO and FAO. Despite this newness and move away from the hands on and supply driven delivery approach, the project received lot of appreciation and support from the market players, government agencies, development collaborators and donor and implementing organizations. The approach taken is likely to be adopted by the different organizations and programs in Zambian context.

Project design, however, had its own shortcomings in terms of targeting the rural youths through the agribusiness promotion support. Issues included in the process of sector and portfolio selection, market analysis and also intervention visioning.

Yapasa originally spent much time researching what level of enterprise activity was necessary for a young smallholder to make a decent living out of soya or fish farming. All modelling was based on growing 1 Ha of soya under ideal conditions or managing 3 ponds of 15x20m. These are the parameters used by ministry of Agriculture and Department of Fisheries to constitute a full time equivalent job (eg 236 days spent on growing 1 Ha of soya (or other crop) constitutes a full time job. It was implicit on our intervention design that these parameters would form the basis of outgrower schemes, and all calculations for inputs required were using this measure as a default. During the Soya impact assessment it was discovered that 47% of participant farmers were growing only 1 lima (a quarter hectare) and 77% were growing less than 1 Ha with only 10% growing a full Ha. Clearly some of the partners operating the outgrowing schemes had not been targeting more enterprising smallholder farmers, although our data has not captured the extent to which they were also growing other crops (it may well be that they were taking perfectly rational decisions to spread their risk across several crops and only devoting a portion of their available land to soya). What we can surmise though is perhaps that in an effort to include more youths the businesses were recruiting farmers with smaller landholdings and this of course has a knock on effect for Yapasa not meeting jobs created targets because the multiplier effect is actually a dividing effect for any farm enterprise less than 1 Ha.





The project has realized this and taken this into account as we begin to model for recommendations for future outgrower schemes later in 2018. Much more effort will be needed in putting forward a sound business case for outgrower operators to target growth

	<p>oriented young farmers – they will benefit two fold through aggregating more crop from fewer farmers and also from having farmers who are more likely to run at a profit and remain in business through their own economies of scale. In 2017 the project made too many assumptions that the partners were seeing the same business opportunity and did not include sufficient modelling in our partnership discussions.</p> <p>The theory behind piloting the FIVMS credit management model with commercial operators did not pan out in real life. The project had vastly overestimated the capacity of the partner outgrower businesses to manage the basic farmer registration processes. Within the CASU project, for which the FIVMS platform had been designed, the model was very simple. That a target group of farmers selected against pre-defined criteria, were eligible to choose from a specified range of free inputs up to a certain fixed value. Thus under CASU the registration process was straightforward, as was the development of the catalogue of available inputs. In the Yapasa model however, the partner outgrower operator companies were at liberty to choose which farmers they would enrol into their schemes. Yapasa only asked that they try to prioritize young farmers wherever feasible. Also the operators and their farmers were free to choose which inputs they wanted to buy but the values were not fixed as the partners were able to negotiate discounts with the input supply companies, as in any normal business relationship. As the mobilization began and the partners started trying to collect deposits it soon became clear that many youths were being squeezed out or dropped because they could not raise the deposit. At this stage Yapasa gave a stronger message to the partners that they should try to include the youths and agreed to top up the deposit amount on behalf of young farmers to prevent such exclusion.</p>
<p>Advocacy, Communications and Capacity building</p>	<p>The project spent considerable time developing a communications strategy in 2017 although it is only in the early stages of implementation, especially around highlighting successful young agribusinesses as role models among rural youths. Clearly documenting and publicizing these remains a priority for 2018.</p> <p>Capacity building of the businesses, whether outgrower operators, agro-dealers and their networks, hatcheries and nurseries, or small farmer enterprises remains an area for attention. It is recognized that Zambia has few good local small business advisory services. There is also a real lack of recognition among micro and small enterprises of the value to be gained through investing in such services. Thus Yapasa has planned to invest in capacity assessments of partners in 2018, through engaging local BDS providers and supporting them to identify capacity solutions that the businesses will be prepared to pay them to address later. However the project has also learned that much more attention has to be given the identifying the right level of farm enterprises with which to work, as argued above. In this context it is as much about starting with enterprises at the right level, that already show some level of commitment to enterprise and growth.</p>
<p>Implementation and Institutional Arrangements</p>	<p>ILO/FAO partnership arrangement has worked very well in implementation and delivery of the project deliveries. Agreement in the implementation arrangement, acceptance of the Market system development approach and its requirements in terms of delivery and necessary policies coherence might help smoothen the joint program implementation relationship for the future</p> <p>Choose your partnership structures carefully</p> <p>Yapasa had entered into a partnership with the input supplier for several reasons. The input supplier had earlier indicated an interest in further developing a Community Agro-dealer (CAD) model which they had piloted initially in Eastern Province with the USAID Profit+ project. This model was also of interest to Yapasa in furthering the development of last mile inputs distribution mechanisms. The unit within the input supplier responsible for such pilots was the Business Development division and the initial project discussions around the modelling were with that department. However when it came to implementing the intervention and negotiating the levels of credit agreements etc, the responsible unit was Commercial and so the main relationship with Yapasa passed to that team and ultimately it was the commercial unit with which the project signed the MoU. Somewhere among all the challenges in establishing the recording and payment mechanisms, described in section 2.1 above, Yapasa and the input supplier realised that the discussion about development of the CAD model had been pushed onto the back burner. Although few of the models actually used what they called CADs the partners had been working through their own structures of lead farmers and “loan” or extension officers who fulfilled largely the same functions.</p>

It was later in the year however that Yapasa realised the importance of the department with which Yapasa had a partnership. When issues of financial liability were being examined after the levels of farmer default became apparent Yapasa was left in a quandary. On the one hand the partnership agreement with the input supplier was clear. The company took 50% liability and the partners bore the other 50%. Yapasa had no financial liability. Yet the project felt that it bore a moral responsibility. Besides the expediency of ensuring the crop inputs were released in time to plant the season's crop, it was this moral responsibility to protect smallholder farmers from debt as a result of their engagement in the activities promoted by the project that had led Yapasa to agree with the input supplier to top up the deposit shortfalls. Well after the end of the season when the input supplier was beginning to pursue the partners and their smallholder farmers for debts and were threatening legal action, Yapasa also felt the moral obligation to intervene financially, even if writing off farmer debts became a moral hazard. In order to prevent such an occurrence in the first place, the MoU with the input supplier should have been with the Business Development Unit, which should also have allocated business development funds to buy down their internal company risk to which the Commercial division was exposed.

8. ANNEXES

The following annexes are included

-  ABOS Finalized Report
-  Access to quality fish feed-Monitoring report 10-01-2018
-  ADAZ - Final Draft Strategic plan
-  Aquaculture Intervention learning Workshop
-  Council crop levies Study Draft1
-  DoF Hatcheries and Nurseries Management Manual
-  FIVMS MRI Business models
-  Impact assessment report
-  Impact of Import-Export Bans on Smallholder Farmers
-  Learnings from YAPASA Soybean Interventions Workshop report
-  Media advisory_Zambian farmers lose USD one million in revenue
-  Nursery operators training report -NRDC Mwekera
-  NUSFAZ Farming As A Business- User Manual
-  NUSFAZ TOT report 2017
-  NUSFAZ TRAINER'S GUIDE Final
-  Perception of youths in agriculture survey report August 2017
-  Session04_Policy-Coherence-for-Predictable-MaizeMarkets
-  SOPAG Validation Workshop Report FINAL
-  Workshop Report -Hatcheries and Nurseries Manual Development
-  Yapasa Program logframe-Revised 08-16