Legumes are an important component of the agriculture sector in the Sub-Saharan Africa (SSA), Malawi inclusive and South Asia (SA). Legumes play an important and diverse role in the farming systems and in the diets of households in Malawi and are crucial for simultaneously achieving three developmental goals of reducing poverty, improving human health and nutrition, and enhancing ecosystem resilience. Worth noting are also the following:

1. In Malawi, legume crops are especially important because of their potential to both improve soil fertility (by fixing nitrogen and reducing erosion) and help to overcome nutritional deficiencies (supplying protein, oils and vitamin A);

2. The sector players are particularly inclined towards the promotion of four of the most important legumes, namely Beans, Soya, Pigeon peas and groundnuts;

3. In Malawi, the sector players using the value chain approach come under the banner of the Legumes Development Trust (LDT) whose main role is to coordinate and consolidate efforts of the legume value chain players for an efficient and viable legume sector; and

4. The importance of the legumes sector to Malawi’s economy cannot be overemphasized; the dwindling importance of the tobacco sector has magnified the need to promote legume value chains and this is echoed in important policy documents such as the National Export strategy and the National Agriculture Policy.

However due to the Covid-19 pandemic, the sector is not as stable as it used to be. This paper intends to highlight the impact of Covid-19 on legume value chain with specific focus on post-production processes namely post-harvest management, marketing, processing, logistics and supply.

2.0 The Covid-19 Pandemic

The novel coronavirus which was started in China near the end of 2019 has now spread to 199 countries with the number of new cases increasing hourly. As of March 31, more than 770,000 people had tested positive for the virus and more than 37,000 have died, while more than 160,000 have recovered, (World Health meter). In Malawi, the first confirmed cases of COVID_19 were announced on 2nd April 2020 following the confirmation of cases in all neighboring countries. As at the time this report was being developed, there have been 4231 total confirmed cases of COVID_19 out of which 2189 are active cases, 1919 recovered and 123 confirmed deaths, with the number continuing to rise (Public Health Institute of Malawi). Modeled data suggests that the impact of the Virus in Malawi is likely to be substantial to the agriculture sector. As of now, disruptions are minimal as food supply has been adequate and markets have been stable.
3.0 Impact of Covid-19 on the legumes Sector

Globally, COVID-19 has affected the economy in three main ways, firstly, it has directly affected production and demand, secondly, COVID-19 has created supply chain and market disruption, and thirdly it has greatly impacted on its finances of firms and financial markets. Regarding legumes, the effects have been quite noticeable on the first two elements, and the effects therein will likely affect the preceding season right from production. Worldgrain.com reports that the effect of Covid-19 on the grain market is hugely due to the minimized movement of the commodity across closed borders.

With the prevalence of Covid-19, the grain markets in Malawi have experienced reduced demand for all commodities thereby pushing the prices down. This is to the most extent due to reduced processing activities as a result of staff lay-off and reduced consumption among other factors. It is expected that the impact of COVID-19 on the Markets may take another 6 months (Already some buyers who expressed interest to buy from farmers have pulled out citing Covid-19 related reasons). Reduced marketing contacts and activities will mean reduced and varying incomes for small-holder farmers. In the event that the trend persists for the next 3 months, two challenges and negative effects will occur. Firstly, there will be reduced incomes and temporary loss of livelihoods. Secondly, the recovery of livelihood sources will be slow culminating into a prolonged poverty period. While marketing activities can easily be resuscitated post-pandemic, there is still a need for back up plans in this peak period. The government has directed ADMARC (the state grain marketing company) to buy commodities form the farmers. However, ADMARC needs $140 Million to effectively undertake this role. As of 5th April, only $6 Million had been advanced to ADMARC from a commitment of 12 Million Dollars. ADMARC is yet to source $118 Million from commercial banks and development funders. Legume prices have generally been lower than the government set minimum prices for most of the commodities except groundnuts. Currently, the prices are ranging between Mk200 and MK400 for Soy, Pigeon peas and Common beans against the government set range of MK240 and MK450. Groundnuts prices have gone way above the government-set price of MK480 with some areas receiving prices as far as MK700.00.

3.1 Impact on Commodity Post-Harvest Management

In Malawi, the first Covid-19 cases were recorded at a time when legume harvesting was at its peak. This put considerable pressure on post-harvest handling prospects, especially for small scale producers. The lack of adequate training on recommended harvesting and post-harvest commodity handling and management to the small scale farmers by relevant institutions has resulted in poor quality produce making way to the market, a situation that has made bottom-line products fetch lower prices. Sadly, commodity post-harvest management has usually been a hassle for small scale farmers due to lack of proper storage facilities and income pressures; the minimized commodity movement from their temporary holding facilities has/will make the situation worse. The small scale producers are likely to be faced with two unattractive options given the scenario; to sell at low prices or risk losing commodity in storage. For medium and large scale producers, the picture is more gruesome; their post-harvest handling storage containers are overloaded due to minimized commodity movement making commodity protection a misery and expensive. Furthermore, their business forecasts have greatly been disrupted. According to IFPRI the average grain post-harvest loss averages 5 and 12 percent annually of producer’s total harvest in Malawi. In the year 2019, the Legumes Development Trust reported a post-harvest loss reduction loss of 4.2% among legume farmers. The current scenario may see the relapse of the situation as a post-harvest loss is likely going to increase. The trust anticipates a 5% increase in post-harvest loss among legume producers and traders.

3.2 Impact on Markets, Marketing and Commodity Prices

Due to the growing levels of concern, recommendations for social distancing, reduced travel, avoidance of crowds, closures, and other protective practices to slow the spread of COVID-19, consumers are making tough choices about food, eating away from home, and overall spending. This has had an impact
on markets and prices. There have also been reported bottlenecks on exportation and cross-border trading due to closed boarders. Some traders have reported their commodity getting stuck in transit a situation that has made them overspend. These concerns about the impact of the virus on the broader economy have however had the least impact on grain marketing with prices reported to be down by 15% only for corn and Soybean compared to 65% down pricing for crude oils, (worldgrain.com). For bottom line producers however the 15% drop in prices is significant. Broadly, many countries of the European Union were already hovering just above a recession prior to the viral outbreak and this event is likely to push them over the edge. China was also experiencing slower economic growth. A worldwide recession, like the one experienced in 2008-09, would push the previously expected legume price recovery off for at least another year.

In Malawi, as the country is attempting to delay the spread of the novel coronavirus by canceling large events, closing schools, and banning large gatherings, farmers who sell directly to consumers, through farmers’ markets or other channels, are concerned about how their farms will survive if those outlets temporarily shutter. A frustration scenario is the non-operation of ADMARC depots in the rural remote areas which could have saved the situation if were operational. A further downside has been the failure of the prices to pick up; quick surveys indicate that almost all legumes are being sold below the government set minimum prices. For example, soybean whose government set minimum price is MK300.00 is largely being traded at a price range of MK250 to MK290, pigeon peas are traded at between MK180.00 and MK200.00 against the set price of MK240.00. By Mid-June, 2020 about 70% (in the region of 200,000MT) each of Soybean and Groundnuts had left producers hands; however, most legume commodity is being held by large traders within the country for lack of better marketing options due to minimized cross-border trade.

### 3.3 Impact on supply chain (Processing and Consumption)

As logistics are disrupted and efforts proceed to slow the spread of the virus, multiple connected industry sectors are already impacted. With some products, “panic buying” is creating additional concern. Additionally, transportation of the products has been affected as the transporters are also exercising caution in fear of exposure. These same concerns have affected the processing sector. The lay-off of staff due to economic slowdown has impacted the volumes processed and marketed. Random chats with processing gurus indicate that the anxiety of paying for rentals at minimum production levels, at the same time the desire to maintain the usage of company machinery and company significance on the processing scenery is what has led to most of the companies laying off staff. It is anticipated that the same scenario might impact fertilizer, fuel, seed and other agricultural input movement and availability as we head toward the next growing season. If this expectation persists and proceeds close to the next growing season, serious food shortages (raw and processed) could be experienced in 2021.

### 4.0 Market Outlook for the Next 3 Months

Only time will reveal the severity of the impacts on agriculture from Covid-19. There are two conflicting ends that have to be treated with caution; one is the urge to limit the spread of the disease and two is the urge to see a farmer market their produce, traders trade, processors produce and market and consumer have access to affordable legume commodity. Holding is purported as one of the best options by many sections in the sector, but for smallholder farmers whose storage prospects are persistently pathetic, this might be a recipe for looming disaster. For traders and processors minimized movement of the produce will also exert unplanned pressure on their yearly storage scenarios hence huge storage/holding costs. The scenario could cause even greater problems for the sector in the medium term. Prices will likely keep dwindling as the country is presently over-flooded with the commodity. Exportation has also proven costly as there are undoubtedly huge costs that could be associated. It would be prudent therefore for farmers with the few resources obtained from commodity sales to make timely purchases of necessary inputs to minimize disruptions to their farming business. For those in processing, this could
be the opportunity for consistent operations and marketing of commodity in different forms in the near future. For pigeon peas whose market started a bit later, the effects have been unfortunately huge. The ADMARC market which would have otherwise offered hope to these farmers has not opened for almost all legumes leaving them in the ruthless hands of middlemen. The only hopeful route for the smallholder farmers are large scale traders and commodity trading platforms who unfortunately are also buying at prices below the government set minimum prices and in the absence of enforcement as is usually been the case, farmers are the greatest losers.

**5.0 Options for Endurance and Recovery with or Beyond Covid-19**

**5.1 Government Adequately Funding ADMARC for legume purchasing**

At the rate at which the situation is persisting, it would make much public service sense if the government could allocate resources to ADMARC for legume purchasing so that farmers in rural areas could have access to nearer, formal and profitable markets. For pigeon peas farmers, this would be their only hope as the crop seems to be the hardest hit. Another divergent option is to lobby large scale traders to establish adequate marketing depots in rural areas to provide for profitable formal marketing options for smallholder producers.

**5.2 Establish a Buffer Fund for Exporters**

For exporting firms and traders whose business has slowed down due to minimized movement of commodity across borders, the government through the Export Development Fund and the South African Investment and Trade Hub should establish a buffer fund for export facilitation and support. This would potentially resuscitate the declining motivation among exporters who for fear of overspending have halted export operations.

**5.3 Intensify Micro-Processing and Value Addition Initiatives in Cooperatives**

Over the years, the performance of Micro-Processing Cooperatives has been affected by inconsistent raw material supply. Covid-19 prevalence has caused minimized commodity movement for most of these Cooperatives making them oversupplied with raw materials. Besides, these cooperatives are struggling with storage space for their commodities. It would therefore make business sense for these Micro-Processors to capitalize on the situation and intensify their processing prospects. The longer shelf life enjoyed mostly by processed or semi-processed products will save both storage space and commodity loss in storage.

**5.4 Reduce Farm Gate Prices**

Prior and in the wake of Covid-19, there have been calls on the part of grain traders on the need to revise some legume prices downwards as the current set minimum prices are considered high for those pursuing export markets and the minimized commodity exportation has exacerbated the situation. For example, for soybean which was set at MK300, the traders are lobbying with government to revise it down to MK250. This is also true for pigeon peas which is pegged at MK240. Pigeon peas are likely not going to effectively get exported to their niche market namely India and Dubai as such revising the price downwards already will be a plausible decision to make.