

Submission to Parliamentary Committee on Agriculture, Lands and Natural
Resource

Subsidies and the FISP Program

Introduction

Following the invitations made to individual organizations to make submissions towards the Review of the Implementation of the Farmer Input Support Programme (FISP), a Consortium of CSOs however, collectively put up this submission following the commonality of issues raised among them in the recent past regarding FISP. The CSOs have welcomed the approach by the Committee on Agriculture, Lands and Natural Resources in undertaking a detailed study on the review of FISP by engaging many players among them CSOs. We the Consortium of CSOs is preview to the terms of reference that include;

- i). To appreciate the adequacy of the policy and legal framework governing the FISP;
- ii). To ascertain the impact of FISP on the small-scale farmers;
- iii). To appreciate measures that have been put in place to ensure that only deserving farmers benefited from the programme, if any;
- iv). To appreciate the private sector involvement in the FISP;
- v). To appreciate budgetary allocations for FISP year by year for the last five years;
- vi). To appreciate the strategies put in place by Government for the improvement of FISP;
- vii). To ascertain the challenges that have been faced in the implementation of FISP; and
- viii). Make recommendations on the way forward.

It is with the above terms of reference that we make this submission but also considering the other important aspects that could transform the FISP to make it move towards Abundance, Productive and Resilient.

This submission is presented in the following outline; brief background on FISP, the context to which this submission is being made, Key issues on FISP and the recommendations.

A. Brief Background of Farmer Input Support Programme (FISP)

Zambia is one of the countries to re-institute the Agricultural subsidies under Fertilizer Support Programme a one of the strategies to address the poverty. With the rising concerns of food insecurity, the government reintroduced the agricultural input subsidies under the Fertilizer Support Programme (FSP) in 2002. The smallholder farmers' supplies 80% of food consumed in the country and due to their lack of cash incomes, appropriate technological packages and irregular supply of inputs among small-scale farmers, the Zambian government saw it as big setback in achieving food security and improving agricultural production of the country. The FSP, now called FISP, was therefore an alternative to address this. FISP is a nation-wide programme that aims at improving access to resources by poor smallholder farmers through sustainable private sector participation at subsidized cost, in order to increase household food security and incomes. The programme started with 240,000 beneficiaries and increased to 898,500 beneficiaries in 2011/12 before dropping to 659,000 in 2013/14 (MAL, 2013, p.6). The 2014/15 agricultural season marked 13 years of the programme's existence which has been characterized by continuous challenge-based adjustments on the implementation methods. FISP provides both basal and urea fertilizers, as well as hybrid maize seeds at a subsidized price to small-scale farmers. Initially a subsidy level of 50% on both inputs were provided, and while the level of subsidy for seeds practically remained the same throughout the years, fertilizer levels vacillated a number of times increasing to as much as 79% in 2011/12 crop season. Since the 2013/14 season, fertilizer subsidy level has been at 50% while maize seeds are provided at no cost. Recently, other crops (rice, cotton, sorghum and groundnuts) have been included in the programme (ibid.). Another notable adjustment within the 13 years of the programme was in 2008 when beneficiary eligibility based on minimal land size set for maize cultivation changed from a hectare to half a hectare. This reduced pack size from 8 x 50 kg bags of fertilizer and 20 kg of seed to 4 x 50 kg bags of fertilizer and 10 kg of seed. Despite a number of adjustments in the programme implementation, its initial objectives have been maintained.

B. Context to which this Submission is being made

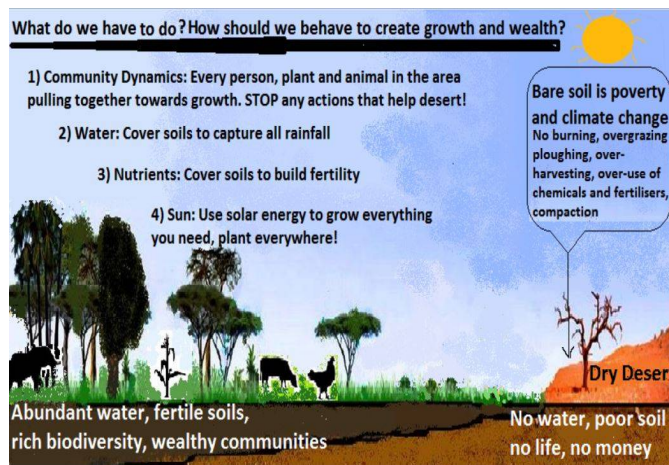
Background

Inorganic fertilisers for maize were introduced to small scale farmers in Zambia under the modernisation program in the 1960's. Farmers abandoned traditional mixed cropping and integrated livestock for high- input monocultures because Government provided an easy market for only maize. Yields increased immediately; the average across our grain belt was just under 5 Tonnes/ha in the late 60's.

The unintended consequences of adopting high-input maize monocultures are many, including:

1. Fertility decline - as organic matter reduced and soil biology starved, natural nutrient flows reduced and yields began a steady decline to under 1.5 t/ha today. Despite improved seed and knowledge farmers are having to use more and more fertiliser to achieve the same yields.
2. Pests and disease - declining soil and plant health increased pests and disease further driving up the cost of production and reducing profit as farmers resort to herbicides and pesticides to treat the symptoms.
3. Broken water cycle. Lower yields have forced farmers to clear more forest to feed their families which means less transpiration. Less biodiversity means more bare, hard ground that is unable to accept rainfall forcing more and more rainwater to quickly run off instead of getting onto the soil to grow plants, replenish ground water and slowly filter through to feed wetlands, streams and rivers. Runoff has increased flooding, erosion and damage to infrastructure and left lands where rain falls dry and drought prone.
4. Consumers have less access to nutritious, diverse food resulting in declining health and rising cost of health care

The situation is now untenable, farmers struggle to make profit, environmental resilience is low and millions have migrated to cities or followed rains north with inevitable social, economic and environmental disruptions.



Environmental Malfunction: Biodiversity loss due to our reductionist management is causing desert and climate change resulting in poverty and social disruption. Our species must repair our relationship with nature or the future is bleak.

What kind of lives do we want? What is the ideal world should we managing towards ?

This will vary among individuals and communities but most people would aspire to a future like this:

*"We want to live in peace and harmony with ourselves and neighbouring countries. We want prosperity, physical and financial security. Good education for our children at all levels. Freedom to pursue our own cultural, religious and spiritual beliefs. Good housing and amenities in our towns and cities. Stable families with adequate food security, safe nutritious and healthy food and abundant clean water. To live in balance with our resources with balance between urban and rural populations so that all can live in peace and prosperity. Fair and equitable access to resources. Freedom from racial, tribal, sexual or any other bigotry with justice available and affordable by all. Pride in ourselves our country and its achievements. International respect. Playing our part as a nation in international affairs as respected equals."*¹

Fundamental direction changes for agriculture

Considering the context holistically including all the social, economic and environmental factors both short and long term, some patterns and trends emerge to guide us on the general direction agriculture must take in order for :

1. Farmers must increase production, diversity of production of food, fibre and energy while reducing costs.
2. Farmers must steadily reduce dependence on fossil-fuel based external inputs and re-embrace nature
3. Production must be managed so that ecosystems regenerate fast enough to provide for increasing demand


Identifying and addressing the root cause of declining productivity, profitability and environmental degradation

Maize 1 ha High input	Av. Costs for 2019/20 season from 10 meetings with Zambian farmers		
Land Prep	Plough 375 Labour 150 Harrow 200	725	
Seed		500	
Fertiliser	8x 550	4400	
Weeds	Roundup 300 Systemic 160 Broadleaf 100	560	
Harvest	Labour 250 Shelling 180 Transport 900 60x bags 300	1630	
Total	Kwacha	7815	
40 bags/ha	110	4400	Loss 3415
60 bags/ha	110 Average	6600	Loss 1215
80 bags/ha	110	8800	Profit 985
100 bags/ha	110	11000	Profit 3185

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- Soil is less fertile each year
- Water is less each year
- Inputs are increasing
- Profits are getting less

We must reduce cost and increase yield or find new land!



Low-cost Maize – manure & no burning residues- Choma 2019 after severe drought

¹ Allan Savory of Holistic Management suggested this generic Holistic Context as a start to forming one's own


- Regeneration of biodiversity both in the soil and above ground is our best chance at reversing desertification and climate change, improving profitability and sovereignty of production.
- Only healthy soil can set us free. Improved soil can produce our food fibre and energy needs without need for expensive inputs
- Healthy soil significantly increases infiltration of rainfall raising groundwater levels and providing the basis for increased growth.
- Healthy soil can only be achieved with increased diversity of plants and integration of animals.

Small scale vs Large scale

Intercropping and replacement of fire with improved management of livestock in crop fields has proved to be regenerative socially, economically and environmentally both in the short and long term. Organic farmers like Sebastian Scott and others are harvesting the highest yields in the country for the lowest cost and minimal external input and with the highest resilience to pests, disease and weather.

Repeated studies by UN/FAO recommend small scale mixed farming as the most likely to meet the Holistic Context we are facing. Large scale mechanised farming is already proving unviable in many countries and likely to get worse in the perfect storm of peak fossil fuel and environmental malfunction.


2a) Small scale low input or Large scale mechanized- Which can provide food, fiber and energy without inputs



Who will control the future soil economy?

- Today fossil fuel controls the world-tomorrow productive land-owners will control the economy!
- Today poor people control most land and resources
- Small-scale farming is universally recognised as the most sound route to address poverty, inequality and environmental malfunction simultaneously.

Suggestion: SECURE PROPERTY RIGHTS for SMALL-SCALE is the first step to a SUSTAINABLE FUTURE




High-input, large-scale farming is un-sound against a holistic context

- Creates few jobs and usually displaces local livelihoods
- High risk of profit and viability reducing with input scarcity
- Destroys biodiversity, accelerating desertification and climate change

Suggestion: MINIMISE large-scale LAND ALIENATION

Two small farms - Same rain, same soil, same climate, same day...


Low input, high yield, high profit, high resilience



Kafue, Zambia after 3 weeks no rain 15/01/2018

- Maize intercropped with pigeonpea, pumpkin, beans, rotated with soya + manure
- No machines, no burning of residues, no fertilisers or agro-chemicals for 15 years
- Farmer happy with rains (late planted soya clearly suffering)
- Minimal pest damage due to diversity

High input, low yield, low profit, low resilience



- A neighbour plants maize alone
- Burns field after harvest, ploughs with tractor, uses fertilisers and agro-chemicals.
- Late planting due to late inputs
- Farmer very disappointed with rains.
- High pest damage


Grassroots Trust: Shaping a Viable Future

Regenerative Catchment Management

Traditionally Zambians managed the whole environment for their livelihoods with over 600 forest products making up a diverse set of foods, fibres and energies. This proved to be resilient and provided for people's needs all the year round.

On a catchment scale, regeneration of ecosystem health, productivity and local empowerment is being achieved where communities plan and coordinate the management of ALL their plants and animals collectively. The starting point has been bringing livestock together to form larger communal herds and planning the grazing Holistically. In this way fire is replaced with livestock as the main management tool.

1. In Mpanshya, Rufunsa a herd of 500 cattle, sheep and goats with nearly 50 separate owners have over the past 5 years shown that the high-impact, long rest principle of Holistic Management has resulted in significant improvement of vegetation and fundamental ecosystem services, improved productivity and profitability of the animals, and a reduction in costs of management.
2. Forests are burning less and less intensively as biomass is reduced by the herd and are now providing far more mushrooms, leaf plants, tubers, fruit, medicines, insects and fibre and livelihoods are improving across the community.
3. The planned rotation also ensures that tick, worm and parasite cycles are broken thus reducing losses. Deworming is now seldom needed, and dipping has only been needed a few times of year when the herd has been forced to move backwards for water. Stream flow has improved visibly despite several years of subnormal rainfall. Wildlife has started to return to the area due to the improved vegetation.




Holistic Planned Grazing

13j) Farming Forest products

- Zambian forests are rich in indigenous plants and insects that can be collected to supplement farm production
- Wild species include over 20 mushrooms, 20 vegetables 15 tuber roots, 40 fruits, 50 medicinal plants and many edible insects
- Demand from urban populations is increasing and packaged well, high prices can be found
- Productivity of forest products can be increased significantly with control of bush fire and reinstating sensible harvesting rules
- Most people have good knowledge of forest products giving them an immediate opportunity to get involved.

25/09/2019



Handwritten notes in Shona and English listing forest products and their uses. Photos show various mushrooms and fruits.

Recommendations

1. Regenerative agriculture

Zambia's population is doubling circa every 22 years and lifestyles are demanding higher consumption rates leading to an exponential increase in demand for resources. To avoid conflict of diminishing resources, all our planning, policy and management must ensure that the biodiversity from which we derive resources for food, fibre and energy is regenerating. Considering all the social, economic and environmental factors both short and long term to avoid unintended consequences without a framework is complex.

We recommend a Holistic Management decision-making framework to ensure policy and decisions are consistent towards the Zambia's Holistic Context

HOLISTIC MANAGERS LEARN TO MAKE DECISIONS FROM A BROAD, NEW PERSPECTIVE BY DEVELOPING AND USING A HOLISTIC CONTEXT AS A "MAGNETIC NORTH" TO GUIDE DECISIONS, TYING SOCIAL VALUES AND LIVELIHOODS TO ECOLOGICAL STABILITY BECAUSE NO SOCIETY OR ECONOMY CAN EXIST WITHOUT NATURE.

UNIVERSAL HOLISTIC CONTEXT

"We want stable families, living peaceful lives in prosperity and physical security, with the freedom to pursue our own religious or spiritual beliefs.

We want access to nutritious food and clean water. We want to enjoy good education and health, living balanced lives, with time for family, friends, community and leisure for cultural and other pursuits.

All this is to be ensured and secured, for many generations to come, on a foundation of regenerating soils and biologically diverse ecosystems on earth's land and in her rivers, lakes and oceans.

This life will be brought about by our being tolerant, kind and considerate of others, showing mutual respect for people's differences and supporting each other, while we take care of our environment, securing the future for our children and for all life on earth."

CHECK TO MAKE SURE THE PROPOSED ACTIONS ARE IN LINE WITH YOUR HOLISTIC CONTEXT BY ASKING THESE QUESTIONS:

- Does this action address the root cause of the problem?
- Will this action help or harm our land, water and other natural resources?
- Will this action help or harm our relationships with others?
- Will this action help or harm our livelihoods?
- How do we FEEL about this action now?

Swahili Savory

Fire maps confirm widespread burning

Much of the potential nutrient for humans and animals is burned early each year. In national Parks and Protected Forest this is managed deliberately to prevent late fires spreading from the villages. Thus fire policy contradicts conservation farming policy from Agriculture and need to be harmonised to maximize growth

15/03/2019 Grassroots Trust 16

2. Reducing dependence on external inputs

Key finite resources responsible for the rapid expansion and growth of our species over the past 150 years, are becoming scarce and therefore more expensive. Of particular concern to agriculture production is the end of cheap fossil fuels and phosphorous essential to produce fertilisers and agro-chemicals. A bag of fertiliser in Zambia cost one bag of maize in the early 70's; it now costs about 6 bags of maize, leaving little profit margin for farmers. As cheap oil becomes scarce, cost of agro-inputs are likely to continue to increase exponentially, yielding increased control of primary production to foreign actors and threatening Zambia's sovereignty.

We recommend that government develop and adopt a policy of low input, regenerative agriculture that exploits crops, livestock, forests,

12d) Organic Matter- the heart of the soil

- Increased organic matter in soils leads to:
- Increased infiltration rates and water holding capacity
 - Increased nutrient content and holding capacity
 - Improved soil structure which leads to reduced erosion and less labour
 - Increased biological function in the soil which leads to nutrient release and disease suppression

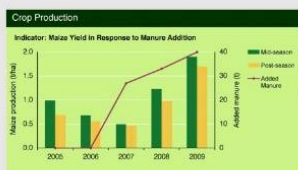


Table 1. Change in the capacity of soil to store water (litres/ha) with changes in levels of soil organic carbon (OC) to 30 cm soil depth. Bulk density 1.2 g/cm³

Change in OC level	Change in OC (kg/m ²)	Extra water (litres/m ²)	Extra water (litres/ha)	CO ₂ sequestered (t/ha)
1%	3.6 kg	14.4	144,000	132
2%	7.2 kg	28.8	288,000	264
3%	10.8 kg	43.2	432,000	396
4%	14.4 kg	57.6	576,000	528

12i) Cropping systems

Test your decisions	Mono-cropping le: maize only	Standard Rotation	Mixed Cropping	Mixed Cropping + manure
Productivity, yield	Declining	Declining to Stable	Increasing Slowly	INCREASING RAPIDLY
Profitability	Declining	Declining to stable	Increasing slowly	INCREASING RAPIDLY
Complexity Difficulty	Low but high with agrochems	medium	high	HIGH
Household nutrition	Poor	Medium	High	VERY HIGH
Resilience To water and pest	Declining	Declining to stable	Increasing slowly	INCREASING RAPIDLY
Towards Holistic Context	Away	Away or stable	Towards slowly	TOWARDS RAPIDLY

fish and wildlife

3. Whole environment and Fundamental ecosystems services

The reductionist model of agriculture we have adopted focuses on reducing biodiversity; forests of 8000 plant species are cleared to plant monocultures which quickly collapse nutrient and water cycles. More and more fertiliser is needed to compensate natural nutrient flows and degraded soil can no longer accept and hold rains. As a result, rains are less and less effective with most of it running off accumulating in floods and leaving drought where it fell. Unless soil health and the water cycle are addressed soon, hydro-power generation risks running out of water and slowing mining and industry.

We recommend that the environment and the fundamental ecosystem services (Water cycle, nutrient flow, community dynamics and solar flow) be considered fully in all planning and management

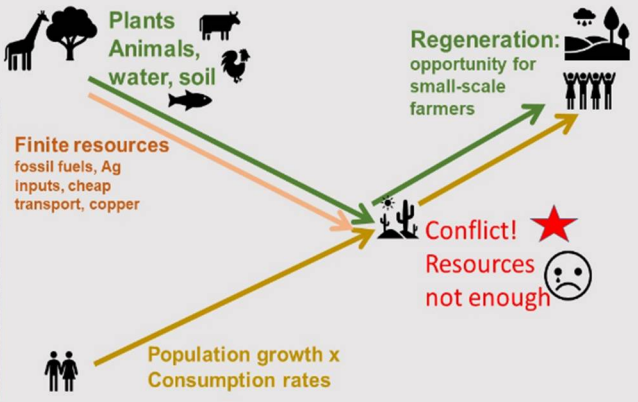

4. Decentralisation of resource management

The evidence that top-down, centralised management has failed to manage the environment and resources is overwhelming. Devolution of rights and responsibilities provides the best hope for regeneration, accountability and productivity. Capacity at local level is low and responsibilities are not clear.

We recommend that a comprehensive process is planned and implemented to ensure that every citizen participates in managing our environment responsibly and reaps the benefits equitably.

12b) Who should be involved in the planning process towards a better Holistic Context

- Involve everyone in planning and decision-making – this includes stakeholders in planning your farm business eg: family, employees, suppliers, buyers, bank managers, loan companies-
- Ensure that everyone is clear about their vested interests- Your success is their success.
- Common lands - decision- makers that may affect your resources and livelihood: neighbours, other livestock owners, local authorities traditional and GRZ, men and women even children who tend to burn a lot.
- Any stakeholder left out can become a problem



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5. Government support and services

Subsidies have often come at the expense of other fundamental services and support those farmers need such as education and health facilities, communication and roads infrastructure, aggregation points and markets, training and effective leadership structures, financial services etc. Phasing out external inputs will release significant funding to support these services essential to meeting our Holistic Context.

We recommend the process of restructuring Government support and services to farmers be participatory, accountable, responsive, efficient and integrated into the decentralisation process

C. Key Issues on FISP

1. Environmental Malfunction

a) The Agriculture system in Zambia; Industrial Agriculture, has contributed largely to environmental malfunction and distortion of Food Systems through its heavy promotion of synthetic/chemical fertilizers and pesticides and mono cropping to some extent leading to Nutrition problems. This type of agriculture has evidently depleted most of the soils and forced commercial farmers to shift to open up bigger pieces of fertile land by cutting down trees. It has in the process caused loss of biodiversity, desertation and soil degradation. The FISP is one programme that has largely contributed to this, as the focus on inputs has been synthetic fertilizers and hybrid seed that heavily depends on chemical fertilizers, herbicides and pesticides for its optimum performance. Small-scale farmers produce 80% of the food in Zambia and if the system continues to support chemical fertilizer usage, the destruction to the environment will be massive in the years to come. In as much as the Policy pronouncements are that of promoting sustainable agriculture, the reality has not been implemented as such evidenced by the FISP, which does not offer options to farmers to choose the kind of inputs they want and that which would encourage biodiversity and healthy soils. Further, with growing population, demand for FISP will increase and this will continue to cause problems for our environment and economy through more expenditures on fertilizer imports.

2. Transparency and Accountability in the Management of the programme

a) **Poor Beneficiary Targeting and Selection:** The selection of beneficiary cooperatives and farmer organizations and farmers under FSP had been by the District Agriculture Committees (DACs). However, most of the DACs are either non-existent or were in

poor shape. This led to increased cases of inaccurate targeting and selection of beneficiaries. In some cases, smallholder farmers who did not deserve subsidized inputs were benefiting from FSP. The programme found it very difficult to establish the actual number of beneficiaries under this programme.

- b) **Poor Management of the system-** The management system is porous and leaves so much room for corruption. The question is who should manage FISP?

3. Farmer Rights and Responsibilities, and Decentralization

- i) The system itself is centric which makes it have a lot of lacuna in its management. Control is done from the top and this is hindrance to addressing the real needs and also making the whole process long resulting in issues of late delivery, no variety in input supply and underserving beneficiaries.
- ii) Farmers Participation. Less consultation is made from the farmers about the FISP, which makes it more complex in addressing the real need in order to achieve the goal. The farmers are only involved at distribution stage as recipients of the service other than being involved in the planning process as well. The FISP has not provided a platform for farmer participation to express their rights or make their rights known that would make the whole system inclusive.
- iii) Farmers rights and sovereignty – access to seed and choice of what they want to grow
- iv) FISP, a very unfair market advantage on pricing for farmers who receive subsidized seeds and fertilizers against farmers who do not receive similar subsidies. At the point of selling crops all farmers sell their crops at the same price. This has created unequal benefits for farmers!
- v) FISP is largely contributing to export controls which have characterized the agriculture sector this discourage people from investing in agriculture production. Farmers have to depend on the local market to sell their crops, this result is flooding and low prices.

D. Recommendations Specific to the Transformation of FISP

Environmental Malfunction- To move towards a healthier Environment;

- The system should consider a type of agriculture that will encourage environmental health for Sustainable, Nutritious and resilient Food System. The Biology of soils is of paramount importance in order to obtain this which has not been given attention during the implementation of FISP. This will determine what inputs to promote in the system and also in each geographical area without causing further soil degradation. The proposed type of Agriculture is Agroecology. An agriculture that interacts with ecology to maintain the balance but at the same time provides the food needed.
- FISP should be aligned with this type of Agriculture that includes; all inputs and trainings. The package should not be limited to certain inputs available by the contracted suppliers but should look beyond by considering the implication that comes with that. A selection of suppliers should therefore be looked at critically.
- Invest in research into optimal approaches (including scale, location, species mix and management) to agricultural systems for programmes such as FISP for soil health and biodiversity, as a means of contributing to its healthier environment and regenerative/sustainable agriculture objectives. FISP has failed to recognize the spatial variability of soil fertility and climatic conditions in the country, hence the blanket distribution of the same inputs country wide.

Transparency and Accountability in the Management of the programme

- **Management of the system** – The system should have mechanisms of exiting the beneficiaries, Transparency in selection and management processes. This can only be attained if there is proper segregation of roles and responsibilities that are accountable for at all times. Suppliers should be well selected, reduce restriction on input selection by the farmer. The system should automatically graduate the farmers to accommodate others. This will avoid having same farmers and also the underserving people to be on the list of beneficiaries.

- Ministry of Agriculture to concentrate on more technical issues and move the distribution to other ministries e.g. Community Development. This will help Ministry of Agriculture deliver on their services effectively and timely throughout the year.
- The selection of suppliers should be done in a more transparent manner with the involvement of all stakeholders. This will reduce issues of farmers receiving inputs that they do not want, diversification issues and the ineffectiveness in input delivery.

Farmers' Rights and Responsibilities and Decentralization

- Decentralize the process to reduce irregularities- Involvement of all structures is paramount to make the whole process effective. A decentralized system will allow for collective planning, decision making, management and ultimately avoid corrupt acts. Further, this will allow district to come up with their own context and avoid dictation of what, how and who should deliver the inputs
- Make the process more participatory at all stages. The programme will only achieve its purpose with the full input from the beneficiaries who know what will help improve their farming system.
- There should be the upholding of farmers' rights to allow them make choices on preferred seeds or any other input deemed right for them and also the system should be open throughout the year without being restrictive to a particular season.
- FISP should no longer be a tool for food security but it should be reformed to address food sovereignty and malnutrition
- FISP should promote the use of indigenous and diverse seed varieties.