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Pathways to Sustainable Food Systems

Food Systems Summit 2021: Member State Dialogues in Lao PDR

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Acronyms

ADB	Asian Development Bank
AIFS	ASEAN Integrated Food Security
ASEAN	Association of Southeast Asian Nations
CSO	Civil Society Organisation
DRM	Disaster Risk Management
FAO	Food and Agricultural Organisation of the United Nations
GAFSP	Global Agriculture and Food Security Program
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
ITC	International Trade Centre
LNOB	Leaving No One Behind
MAF	Ministry of Agriculture and Forestry
MLSW	Ministry of Labour and Social Welfare
MoF	Ministry of Finance
MoH	Ministry of Health
MoI	Ministry of Industry and Commerce
MoNRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MSD	Member State Dialogues
NCCI	Lao PDR National Chamber of Commerce and Industry
NGO	Non-governmental Organisation
NIER	National Institute of Economic Research
NSEDP	National Socio-Economic Development Plan
NTFP	Non-timber forest products
PPP	Public–private partnership
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goal(s)
SPA-FS	Framework and Strategic Plan of Action on Food Security in the ASEAN Region
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRR	UN Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UN-Habitat	UN Human Settlements Programme
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organisation
VRA	Vulnerability and Risk Assessment
WFP	World Food Programme
WHO	World Health Organisation

Introduction

As part of the Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030, the Secretary-General of the United Nations will convene a Food Systems Summit in 2021 to help establish the future direction for food systems in our world and inspire action to get there. The Summit will bring together key players from the worlds of science, business, policy, healthcare and academia, as well as farmers, indigenous people, youth organisations, consumer groups, environmental activists, and other key stakeholders. Participants will explore how the transformation of food systems can be better aligned with the principles and goals of the 2030 Agenda and identify pathways to leverage these transformations to accelerate overall progress.

Member states were invited to hold a national-level, multi-stakeholder Food System Summit Dialogue (Member State Dialogues or MSD) in preparation for the Global Summit in September 2021. Based on the action tracks proposed by the Secretary-General, the technical groups of the MSD in Lao PDR identified four key thematic areas:

- i) ensuring safe and nutritious food for all,
- ii) boosting nature-positive food production at sufficient scales;
- iii) advancing equitable livelihoods and value distribution; and
- iv) building resilience to vulnerabilities, shocks and stresses.

This paper is a collaborative effort, involving the Government of Lao PDR, the UN country team in Lao PDR and stakeholders found at every level of the food systems in the country. Encapsulating the extensive consultation between relevant parties leading into the Member State dialogues, this paper explores the food systems as a whole, identifying country-specific opportunities and challenges, discusses synergies and trade-offs between different thematic areas and elements of food systems and aims to delineate a pathway toward more sustainable food systems in Lao PDR.

Please note that this is a synthesised paper, more in-depth and theme-specific background papers can be found in the annex.



Sustainable Food Systems in Lao PDR: Challenges and Opportunities

Laos PDR is at a critical juncture in its development process as it embarks on the implementation of the 9th National Socio-Economic Development Plan (NSEDP). As one of the fastest growing economies, it has been successful in reducing poverty and improving living conditions. However, the growth model has neither been environmentally sustainable – often drawing extensively on natural resources without ensuring necessary safeguards, nor inclusive – with foreign capital driven growth displaying limited linkages to domestic business and creating too few job opportunities. Identifying the key challenges and opportunities to creating more sustainable food systems in Lao PDR will aid the overall development process of the country – ensuring a more inclusive and sustainable growth model for the future and helping to achieving the targets of both the 9th NSEDP and the Sustainable Development Goals.

As one of the main developmental challenges in Lao PDR, theme one of the MSD is **'ensuring access to safe and nutritious food for all'** which aims to improve food security, safety and nutrition, particularly of children, adolescents, and women – who are nutritionally most vulnerable. A crucial aspect of this theme is ending hunger and all forms of malnutrition as widespread food insecurity and high levels of acute and chronic malnutrition impede social, human and economic development. It is estimated that malnutrition results in an annual loss of 2.4% of GDP in Lao PDR (NIPN 2020). In 2017, in children under 5 years of age, the prevalence rate of stunting was 33%, wasting 9%, underweight 21%, and anaemia 44% (LSIS 2017), with wide disparities across provinces and socio-economic status. Lao PDR furthermore faces a “triple burden” of persistent malnutrition, with high rates of under-nutrition, micronutrient deficiencies (“hidden hunger”) and an emerging trend of overweight and obesity.

Poverty, inequality and locational disadvantage are key influential factors in the malnutrition situation, quality of diet and nutritional status of the population. For instance, though many households still engage in subsistence agriculture, the reliance on bought food is increasing. Informal markets remain a key source of food in Laos which often provide mostly nutritious

foods including fruits and vegetables. However, informal markets are increasingly supplying more ultra-processed foods high in fat, sugar and sodium. Consequently, there is increased consumption of cheap, highly processed foods, such as instant noodles, instant rice porridge, and sugar sweetened beverages, which are harmful for nutrition (World Vision 2020).

There are still many locations in Lao PDR where a “traditional” food system is practiced. In some remote villages, households source their food seasonally through a combination of agricultural production, foraging, wild food sources and local marketplaces. With the disappearance of forest coverage and an increasing population, these traditional food system choices and diets are changing as access to wild foods decline, often being replaced by less nutritious foods products. Securing these traditional food systems that primarily provide for the most vulnerable communities in Lao PDR should be a key consideration in transitioning to a nutrition-centred approach to food, with a particular focus on the nexus between accessing food and the increasing risks in zoonotic diseases.

More needs to be done to ensure affordability and equitable access to nutritious foods, but consumption patterns and personal food environments also play an important role in shaping the nutritional outcome of the population. Social norms and practices are key. For instance, social beliefs about certain foods including nutritious foods might limit their provision to young children (e.g., eggs, liver) while also knowledge, skills, experience, income, and time of caregivers limit what food is procured, prepared, and provided to children. Creation of demand for healthy foods especially among children and adolescents is necessary, as this is the key period in which values are shaped about food. Nutrition education, sensitisation, training, social media campaigns, marketing techniques, as well as economic incentives and disincentives can help to shift demand.

“Lao PDR can strengthen its reputation of being a biodiversity hotspot where local populations consume a highly diverse diet of environmentally sustainable agriculture products and emphasising Lao PDR’s niche in this sector.”

While there is ongoing collaborative and multi-sectoral work to address challenges related to malnutrition and food insecurity, to date there has been little consideration of the role of the food system in driving these issues. This presents a great opportunity for the MSD to build on existing initiatives, while emphasising a broader, more comprehensive assessment of the food system’s impact on safe and nutritious food for all. Some of the opportunities to support and increase food security, considering the impact of COVID-19, include, targeted education of farmers on production of nutritious foods; provision of in-kind or cash support to specific districts, villages and households with acute insufficient access to food; selectively allowing agricultural traders greater movement; and continued focus on households’ awareness about nutritious foods (WFP 2020).

The key challenges and opportunities facing the second theme of the MSD, **‘boosting nature positive production’**, revolve around balancing sustainable agricultural practices, people’s livelihoods and economic competition from neighbouring China, Thailand and Vietnam in the agriculture sector. Agriculture production comprises 16.6% of Lao PDR’s GDP, but accounts for nearly 70% of total employment and over 60% of earnings and expenditure by low-income groups.

For the near future, agriculture will continue to be the primary source of income and livelihood for most of the population. Large agribusinesses are key players in the agricultural sector and while they can contribute to greater income and create more employment opportunities, they also present several disadvantages

including: (i) granting land use rights to cultivate large areas of land in monocrops; (ii) loss of flexibility in the agriculture sector; and (iii) loss of control of land management.

For instance, the commercialisation of agroforestry and the expansion of hydropower, land concessions have been agreed with investors for large scale development projects such as the construction of hydro-power dams. As a result, reports have emerged of relocation of communities with no proper consultation and provision of adequate compensation. The poor and the marginalised are among those most often negatively affected by development projects and those with customary land rights but without legal titles are the most vulnerable. This has numerous negative consequences, including the displacement of populations, contributing to the creation of internal migrants. With no access to land, one option for many displaced persons is to take up work on large commercial farms, where they face insecure living and working conditions which are highly vulnerable to shocks and stresses, including low and irregular payment, informal or unclear contracts, limited access to healthcare and exposure to unsafe levels of pesticide.

Moreover, the environmental and public health impacts of mega-projects need to be considered, often resulting in increased emissions related to use of natural resources, deforestation¹ and increased and unsafe use of pesticides and chemical fertilisers. The increased use of pesticides and herbicides that has been driven by commercialisation poses a threat to agricultural workers, to consumers and has negative environmental impacts.

For instance, in a study conducted in 2018 by Laos Upland Rural Advisory Service, 52.4% of the samples of fresh fruit and vegetable screened over a period of two years tested positive for residues of organophosphate and carbamate pesticides, a common class of insecticide that is linked to nervous system and neurodevelopmental disorders in children². In addition, Aflatoxins – hazardous fungi – can contaminate food as a result of poor drying and storage practices and this can affect the quality, safety

¹ Deforestation is taking place at an alarming rate, leading to the acceleration of periods of drought. Overall forest cover declined from 70% in 1940 to 40% in 2018 (or 58% if revised definition is followed which includes agroforestry and cultivated forest land). UN-Habitat, *National Climate Change Vulnerability Assessment for Disaster Risk Management in Lao PDR: Preliminary Results* (2020)

² Blood tests conducted of nearly 1000 school children, farmers and consumers showed that only 4% showed no sign of contamination whatsoever – with 35% having ‘risky’ or ‘unsafe’ levels of pesticide in their blood.

and marketability of food, but farmers are generally unaware of their existence. These challenges present a clear opportunity to embrace the ethos of the 2030 Agenda for Sustainable Development and the principle of leaving no one behind as well as to work across thematic areas, particularly Topics 1, 2 and 3.

Sustainable agricultural practices typically require more efforts, labour and skill than chemical-intensive industrial farming, which besides additional costs, is difficult for a country with low population density, weak infrastructure and a weak technical education system. Though large agribusiness can provide employment opportunities and economic benefits, balancing their impact is also integral to boosting nature positive production and advancing equitable livelihoods, particularly regarding the ecological use of forest areas and tenure security, as alluded to above. Other challenges in this thematic area relate to natural disasters, climate change, sustainable management of natural resources, plant pests and animal diseases, food safety, low productivity, poor post-harvesting practice and storage, and inadequate marketing and distribution systems.

Nonetheless, boosting nature positive production is at a promising stage in Lao PDR, particularly with the recognition that increasing the value of agricultural products via innovation could improve food security and safety, nutrition, employment and reduced reliance of imported products. The MSD could help Lao PDR strengthen its reputation of being a biodiversity hotspot where local populations consume a highly diverse diet of environmentally sustainable agriculture products and emphasise Lao PDR's niche in this sector. Rising incomes have also increased demand for safe and nutritious food and should be capitalised on, highlighting further linkages across Topic 1, 2 and 3.

In terms of Topic 3 of the MSD, '**advancing equitable livelihoods and value distribution**' major opportunities and challenges exist in three different streams. The first is generating and improving opportunities for decent work, income and social safety support. In this area, there are opportunities for increasing productivity, commercialisation, entrepreneurship and agribusiness for in-demand crops, livestock and fisheries; improving expertise through skills and

capacity development. Innovation, advisory services and quality compliance building can increase the competitiveness of companies. Shifting business environments in these areas can contribute towards attracting private investment; generating jobs through sustainable rural infrastructure; and improving a business culture through labour protection laws and social welfare provisions.

In parallel, there is a challenge, and great opportunity, in ensuring universality of access to quality incomes, social support and wellbeing to all; in particular, vulnerable groups such as women, youth, ethnic groups and persons with disabilities. Specifically, there is space to improve inclusivity by: ensuring rural populations achieve higher incomes; empowering women, and ensuring their access to land tenure, finance, services and decision-making roles; targeting employment gaps and social welfare gaps for persons with disabilities and the growing youth population; and completely eradicating the worst forms of child labour.

Finally, there is the challenge of mitigating risks and opportunities to increase resilience for all livelihoods. Measures can be taken to address those impacted by COVID-19; prepare for unforeseen future shocks, preparing for natural disaster and climate related risks through resistant agricultural production techniques and infrastructure; reducing reliance on extraction sectors; and increasing reliance on renewable energy.

Theme 4 of the MSD, '**building resilience to vulnerabilities, shocks and stress**', is fundamental to improving the sustainability of food systems in Lao PDR as the country remains vulnerable to climate-related hazards, while large parts of the country are still contaminated with unexploded ordnance. Among these hazards, floods, droughts and storms have the highest impact on agricultural and food security and often trigger secondary hazards such as landslides, forest and community fires, pest and rodent infestation and outbreaks of animal disease. These disasters are exacerbated by the degradation of natural resources, biodiversity loss and climate change. Given the high dependence of the country on natural resources for farming, timber, hydropower and mining, Lao PDR is highly vulnerable to climate change.

It is important to note that climate change is a humanitarian issue *and* a development issue – not just an environmental issue. Next to conflict, climate change is one of the main drivers of global hunger. Increased temperatures are already having a devastating impact on agricultural production in Lao PDR. Food-insecure people are being hit by extreme weather such as drought and flooding, as well as by other stresses such as pest infestation and land degradation. Changes in climate are affecting the production of staple and nutritious crops. This situation is set to worsen as temperatures increase and become more extreme, and rainfall becomes more unpredictable.

Moreover, the food production system is at subsistence level in Lao PDR, and thus remains vulnerable to extreme weather events and degradation of land. Fisheries, aquaculture, and livestock are also impacted by shocks and stress, which has serious economic and social consequences³. Social impacts of shocks and stresses to the food system include household food security, negative coping strategies that affect nutrition and access to services, increased household debt and negative impacts on community cohesion.

The COVID-19 pandemic has disrupted supply chains resulting in localised food price increases, has contributed to rising unemployment and is estimated to push more than 200,000 people into poverty. In addition, a large number of returning migrant workers have led to falling remittances. Though the pandemic has pointed again to the importance of local production and in-country food systems is also vital that disruptions in international trade are minimised.

“Climate change is a humanitarian issue and a development issue – not just an environmental issue.”

Despite the challenges in this thematic area, there are ample opportunities to reduce the impact of shocks and stress to the Lao food system. The MSD is an opportunity to establish the importance of resilient, shock responsive, equitable, inclusive, nutritious and well-functioning food-systems as critical to the ability of communities in Lao PDR to withstand and recover from the challenges of climate, pandemics, and economic crises, all of which are driving hunger.

Furthermore, the Government has already taken a proactive approach, integrating disaster risk management (DRM) and climate change adaptation (CCA), emphasising risk reduction measures linked to poverty reduction, food and nutrition security and sustainable management of natural resources. The country is increasingly focusing on investing in risk reduction measures including mainstreaming anticipatory action and climate information services, as well as insurance and loan products for farmers.

Lao PDR is also the co-chair of the Association of Southeast Asian Nations (ASEAN) Disaster Management Committee working group on prevention and mitigation and an active member of the ASEAN Climate Resilient Agriculture network. Building on these efforts will be crucial to increase resilience to vulnerabilities, shocks and stress and ensuring more sustainable food systems in Lao PDR.

³ The flooding in 2018 saw losses in fisheries associated with washed-away fingerlings and seedlings and lost income from the reduced sale of fish valued at some 38.3 billion Lao kip. A calculation based on an estimated increased mortality of some 2 percent of the flood-affected livestock population predicted an estimated 16 billion Lao kip in losses. <https://www.gfdr.org/en/publication/post-disaster-needs-assessment-2018-floods-lao-pdr>



Sustainable Food Systems in Lao PDR: Synergies and Trade-offs

This section analyses the synergies and trade-offs between thematic areas and other elements of the food systems in Lao PDR to avoid the siloed sector approach and to ensure a more collaborative construction of a national pathway for more sustainable food systems in the country. As well as identifying synergies between work streams, it is important to examine the trade-offs so that competing priorities can be balanced.

Ensuring safe and nutritious food for all presents opportunities to collaborate across all thematic areas and numerous elements of the food system. In terms of food supply chains, there are clear linkages with agricultural production, post-harvest processing and distribution, natural resources management, and agricultural research and development. Regarding external food environments, emphasis should be placed on cooperation with markets and schools, improving and maintaining food safety and improving availability of and incentivising nutritious food choices. The consumption elements of the food system are focused on personal food environments and behaviours, including food preparation and eating habits. Post-consumption waste management affects local environments and resilience at the local level.

It will be important for Lao PDR to balance the benefits of economic development with impacts on public health, the environment, and social equity. Particular attention should be paid to maternal, children's and adolescents' health, and to vulnerable groups, including remote, rural, and ethnic groups. A strong emphasis should also be placed on gender – women are an integral part of the agricultural sector comprising over half of the agricultural workforce yet face significant and persistent barriers to participating fully in food systems related institutions in terms of access to information and resources as well as leadership positions.

One key trade-off related to gender and safe and nutritious food is related to childcare. Women provide the bulk of childcare but when faced with choices between producing food for the household and providing care for infants and young children, they are

more likely to produce food. Therefore, not only health services, but also agricultural extension services, should be tailored to families' needs. Families with young children need advice on home gardens and small livestock (chickens, ducks), so that women can produce food and at the same time continue to provide care. Further, both health and agricultural services should engage men to promote more equitable labour in food production and childcare.

In this vein, underpinning all thematic areas is the commitment to '**leave no one behind**' (LNOB) by ensuring representation for the most vulnerable groups in the food system and aiming for all members of society to have equitable access to resources, information, food and livelihood opportunities. LNOB priorities do not automatically chime with greater market development or increased agricultural development, but measures can be taken for these two priorities to complement each other and that contribute to a more sustainable food system.

For instance, the increase in cash-crop production for national and regional markets can contribute to higher levels of income at village and household levels but this does not necessarily increase 'safe and nutritious food for all'. As more rural households become dependent on food purchased in markets, the poor may face greater food insecurity and nutrition deficiencies – and even families who can afford to buy food products may choose less nutritious food. Therefore, a sustainable and effective food system that leaves no one behind should go beyond supply level interventions, also targeting the changing consumption behaviours of families, driving demand for healthy food choices.

Nonetheless, rising incomes of consumers, especially in the growing middle class in the region and in the country, are creating increased demand for clean and safe products. Regional and national markets for high quality and safe sub-tropical fruits, vegetables and herbs offer good commercial prospects for farmers to achieve better livelihoods. Despite more expensive practices of 'green' agricultural production, this emphasises the opportunity that Laos could benefit in

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terms of regional trade by taking advantage of its rich biodiversity in a sustainable manner, highlighting a key synergy between ensuring safe and nutritious food for all and advancing equitable livelihoods. In order to benefit from this, Lao PDR must strive to **boost nature positive production at sufficient scales**, and attempt to reconcile an export-orientated strategy with the promotion of agroecology.

Nature positive production techniques could generate added value through the creation and expansion of functional markets that are inclusive and accessible to small producers to ensure increased income opportunities and move beyond subsistence-based production. As already emphasised, markets and associated value chains at the local, national, and regional level increasingly demand quality, safe and clean products and this will, in part, drive the shift to more sustainable production systems – though more should be done to incentivise this, such as firmer regulation of non-organic products and unsafe pesticide use. Topic 4 on ‘building resilience to vulnerabilities, shocks and stress’ also overlaps in this area given that the health of natural systems and agriculture production are interdependent and best maintained in a circular, complementary manner.

Additionally, the MSD can raise awareness of the benefits of diversified foods, clean and safe food products, and efficient production practices that are adapted to the varying environmental and socio-economic conditions across Lao PDR. This presents clear linkages across all thematic areas. For instance, and in particular reference to Topics 1, 3 and 4, climate smart interventions can increase household food and

nutrition security; build resilience to market fluctuations; and safeguard ecosystems by protecting biodiversity, reducing soil erosion, and increasing soil carbon sequestration.

To surmise, it is critical that a balance be struck between the competing interests of an economic model based on extraction and export of natural resources dominated by large-scale agribusinesses and the sustainability of the food system. There is a clear opportunity for Topics 1, 2 and 3 to collaboratively promote a sustainable vision of agricultural production that; 1) ensures safe and nutritious food for all by, for instance, limiting the use of unsafe pesticides and incentivising nutritious food choices among the population, 2) ensures that agricultural production doesn’t irreparably damage biodiversity and the ecology of the country while capitalising on the regional demand for safe, nutritious and sustainable sourced food and 3) that the benefits of ‘development’ are distributed evenly amongst the population, by for instance, ensuring the equitable distribution of land and promoting smaller-scale and cooperative businesses. Topic 4 is also integral as building resilience to already existent climate change, and reducing vulnerabilities to future shocks and stress, can support these initiatives and ensure the sustainability of food systems in the country as-a-whole.

To expand on Topic 4, **‘building resilience to vulnerabilities shocks and stress’** is a crucial complementary and integrated feature of sustainable food systems. Shocks, large-scale but also small and recurrent, can impact many elements of food systems, causing productivity loss, disruptions in markets, increased price volatility, degradation of natural resources and overall system instability which tend to affect the most vulnerable, food-insecure and under-nourished people in greater measure.

Therefore, policies, technologies, practices and partnerships that increase the capacity of food systems to anticipate, prevent, reduce and effectively manage the multiple risks and build back better from shocks are necessary to foster more sustainable food systems and support all other thematic areas. Steps to build resilience can be deployed at multiple levels and require integrated measures involving risk assessment, governance, ecosystem-based DRR and

CCA, inclusive and gender sensitive approaches, nutrition-sensitive and shock-responsive social protection and others⁴.

Building resilience is required across food system elements (environment, people, inputs, processes, infrastructures and institutions) and activities (from production, processing, distribution to preparation and consumption of food and waste management) with due recognition of their interlinkages. Together they will achieve the socio-economic and environmental outcomes such as poverty reduction, food security and improved nutrition.

Finally, smallholder agricultural activities are part of the strategic orientation for young farmers or producers to continue their careers in agri-food production. Work with young farmers to maximise the use of digital platforms and social media will help to promote and create consumer awareness on nature-positive food productions. This can include introducing mechanism and practical steps to promote and focus on youth entrepreneurs/farmers by creating market and income generation opportunities.

Building resilience in food systems requires consideration of synergies as well as potential trade-offs between the economic impacts (e.g., incomes, profits, taxes and food supply), social impacts (e.g., gender equality, nutrition, and animal welfare), and environmental impacts (e.g., the conservation of ecosystems, biodiversity, soil and water). For example, some value chain development projects may deliver economic benefits, such as improved profits and job creation for certain food system stakeholders, but have negative environmental impacts, such as changes in land use associated with the conversion of forest land to agriculture. Some interventions - if they rely on a monoculture cropping systems - may have a positive economic impact for certain stakeholders but erode genetic diversity and increase the system's vulnerability to climate change.

Other interventions may have negative social impacts, such as decreased nutrition, if they promote calorie-rich but nutrient-poor, ultra-processed foods over fresh produce or perishable goods. Equally, food value chain interventions that only prioritise environmental

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elements, such as the reduction of carbon emissions through reduced fertiliser use or the introduction of a new technology, may lead to negative economic impacts in terms of reduced profits and potential job losses if not managed appropriately or effectively. An inherent feature among all these actions is that while promoting short term gain, they undermine longer term productivity which erodes sustainability and jeopardises the prospects for future generations.

When considering Topic 3, **‘advancing equitable livelihoods and value distribution’** the main trade-offs are largely related to economic and financial issues. For example, the augmenting of productive agriculture techniques, expertise, innovations and services to increase competitiveness of enterprises, sustainable rural infrastructure, and social safety protections will require public and private investments, particularly in the short term. This is also the case for investment in expertise, productive inputs, finance that is accessible for vulnerable groups, and the responding and early prevention of shocks like COVID-19 and natural disasters.

The benefits and pay-outs of these investments range in the short, medium, and long term, however. Specifically, this could reduce income gaps for rural populations and vulnerable groups, increase the labour force, reduce the unemployment rate to below the target of less than 5%, drive commercialisation of domestic and international markets, increase local and national economic productivity rates, reduce burdens on health and welfare systems, and

⁴ <http://www.fao.org/3/nb842en/nb842en.pdf>

especially, drive down costs of responding to impacts caused by climate change and natural disasters.

There are potential impacts and risks of social and environmental trade-offs, though these can be minimised. The generation of livelihoods can increase environmental degradation such as alterations of lands for agricultural and forestry purposes, the increase of unsustainable practices in processing or transporting, and improper disposal practices that generate harmful emissions.

Additionally, there can be risks associated with empowering certain groups, which can contribute to

grievances or issues with social cohesion if some groups are left out of the generation of increased incomes and improved livelihoods. This could be the case in a scenario where market saturation leads to the deterioration of the market driving power of current stakeholders, for example. These are only potential trade-offs, however, that can be mitigated through careful systematic approaches to social and environmental considerations under the principle of do no harm, especially with the themes of boosting nature positive production and increasing resilience to vulnerabilities and shocks.



Sustainable Food Systems in Lao PDR: Pathways and Stakeholder Commitments

'Ensuring Safe and Nutritious Food for all'⁵

The definitive pathway for Lao PDR to ensure 'safe and nutritious food for all' will require broad consultation. There has been long-standing interest in the international development community to link agriculture to nutrition, and to develop a pathway for countries such as Lao PDR to improve the food system to 'ensure safe and nutritious food for all.' However, the direct path in Lao PDR is still to be discussed. The following are suggested for consultation and prioritisation.

Key elements of the pathway should include (informed by Hawkes et al. 2020):

- Better understanding of nutritional issues, food behaviours including the perspective of the consumers and how this interacts with the food and social environment to influence behaviours and taste preferences (cost/marketing, availability etc.) and setting of clear research priorities;
- Development of evidence-based national dietary guidelines which nuance the multiple burdens of malnutrition across different contexts;
- Development of nutrition standards for school feeding and social protection programmes;
- Improvements in food environments that promote nutrition and food security, including strengthening of local supply chains;
- Incentivise innovation by the private sector to make nutrient-rich foods affordable, accessible and safe for consumers, while at the same time supporting the livelihoods of producers e.g., product reformulation or innovative technologies that improve the productivity and safety of healthy, affordable foods by smallholders. Identification of incentives and disincentives, and support for nutrition-sensitive innovations, along both domestic and international supply chains;
- Greater nutrition focus in financing and other public policies, particularly in agriculture. Small and medium-sized enterprises need access to financing

and capacity-building resources to support improved production of safe and nutritious foods;

- Greater investment in infrastructure and the agricultural value chain, prioritising areas that are food and nutrition insecure, i.e., roads from farm to market in remote areas;
- Creation of demand for healthy foods especially among children and adolescents as this is the key period in which values are shaped about food. Nutrition education, sensitisation, training, social media campaigns, marketing techniques, as well as economic incentives and disincentives can help to shift demand.

Further elements of the pathway linking agriculture to nutrition, which are potential areas for intervention, are likely to include (Hoberg et al. 2013):

- Higher incomes - these improve household wellbeing and enable more and better choices for households, although it is important to note that higher incomes may lead only to a modest effect on nutritional outcomes;
- Provide support to specific vulnerable groups who are food insecure and cannot afford nutritious food through the rollout of a nutrition sensitive social safety net;
- Increasing access to and consumption of nutritious foods through higher agricultural production and lower food prices;
- Increasing income and economic empowerment of women;
- Safeguarding caregivers' capacity and practices, i.e., even as women are more involved in agricultural production, food processing and marketing, to continue to support women in care and feeding of infants and young children;
- Improving the health and nutrition of women.

Institutional elements of the pathway are likely to include:

⁵ Co-led by MPI, MoH, WFP and UNICEF with contributions from FAO and the WHO

- Creation of an enabling policy environment that protects the food and nutrition needs of all individuals, especially vulnerable populations. This should include interventions that address cross-cutting issues such as environmental protection, climate adaptation and resilience, social protection, and gender equity;
- Creation of a multisectoral mechanism, such as a technical working group that is mandated to advance the Member State Dialogue, to plan and coordinate action in developing balanced and inclusive food systems in Lao PDR. This working group should at a minimum involve key stakeholders and Ministries concerned with advancing food and nutrition security;
- Identifying and enacting fiscal policies to shape elements of the food system that maximise the opportunity to provide 'safe and nutritious food for all';
- Increasing the voice and visibility of rural people who are increasingly vulnerable to shocks and regional economic shifts impacting food systems, so that they can participate in national, provincial, and district planning and programmes. One way to do this is by conducting more applied research to document and analyse the lived experience of people facing the impacts of food system change, further documenting examples of local adaptation and indigenous solutions through effective two-way communication streams and shared learning;
- Continued investment in districts and villages to develop and implement sound agricultural plans which include considerations of food security, food safety, and nutrition;
- The creation of an enabling environment should include the involvement of the National Assembly, which can engage in representation, legislation, budget allocation, and oversight (IPU and FAO 2021).

In addition to sectoral ministries such as the Ministry of Agriculture and Forestry (MAF) and the Ministry of Health (MoH), ministries such as the Ministry of Planning and Investment (MPI), Ministry of Labour and Social Welfare (MLSW) and the Ministry of Finance (MoF) have crucial roles.

Statements of intentions and commitments from involved groups of actors

All stakeholders have identified the need for further convergence in planning and implementation of the food system and nutrition programming. Food is fundamental to the improvement of the nutrition status in Lao PDR and the sustainability of the investments made thus far.

There is also strong acknowledgement that food production and value chain improvements are insufficient in delivering on nutrition outcomes and ensuring that the food produced in Lao PDR reaches the bodies of the Lao community, particularly children and adolescents. Of equal importance is a commitment to education and establishing a food system and non-food environment that incentivises consumption patterns and behaviour that has a positive impact on healthy nutrition choices. This requires a multi-sectoral and multi-stakeholder commitment to disrupt the current economically prioritised food model in Lao PDR.

The initial consultations also identified that in reshaping the food system to deliver 'safe and nutritious food for all', each action must be built on the principles of leaving no one behind. This will ensure that policy decisions consider the impacts on smallholder farmers, vulnerable groups, including women, children, people with disabilities, ethnic groups and poor households in both urban and rural communities. Where policy interventions may affect the livelihoods and resilience of vulnerable groups, complementary programmes should be undertaken in parallel to maximise the food and nutrition security for all.

Boosting Nature-Positive Food Production at Sufficient Scales⁶

With reference to the Green and Sustainable Agriculture Framework developed by MAF, the Nature-Positive Food Production approach focuses on Organic agriculture, Agroforestry, Agroecology, Low-input, Pesticide free. These includes crops (irrigated and rainfed), livestock, fisheries, agroforestry, and non-timber forest products (NTFPs) sub-sectors. Agroforestry and NTFPs represent areas of transitional linkage between commercialised agricultural crops, livestock rearing, fisheries, and forests and rangelands. These five sub-sectors make

⁶ Co-led by MAF and FAO with contributions from MoIC, MPI, NIER, MoNRE, ITC, UNDP, UNEP, SDC, and UNIDO

significant contributions to food and nutrition security as well as poverty eradication in Lao PDR.

Consistent with international trends, Lao PDR is pursuing the implementation of Good Agricultural Practices (GAP) as a minimum standard across all production systems to be adhered to by small producers and private enterprises. Whether producing industrial crops or unique regional specialty products, GAP standards are seen as the modern foundation for the commercial production of commodities with the potential of expanding further into more stringent sustainable production systems that promote the concepts of reduced external inputs, recycling of materials and energy (circular economy), and organic agriculture.

The government has ambitions for GAP to be implemented throughout the country and is identifying opportunities for pilots in selected areas for future roll-out. Other voluntary certification methods may also be promoted such as Participatory Guarantee Systems, Geographical Indications and Specialty Rice/Coffee.

Creation of an enabling environment requires an overall improvement of knowledge and understanding of concepts, processes, opportunities and challenges by all actors of food production system. To do this, both demand and supply sides needs to be taken into great consideration. Developing capacities of producers to intensify efforts and good practices, and improving the policy environment (e.g., access to credit, applying effective and efficient incentives) will contribute to boosting nature-positive production and drive the transformation of food production systems.

In order to accelerate food system transformation toward nature-positive food production, three investment areas that need partners' attention: (1) green agricultural innovation, research and technologies; (2) green extension; (3) green markets and value chains. While efforts should be made to increase investment or funding in research and development and extension to underpin agricultural innovation, farmers and producers need to be upskilled in various forms of implementation of regulations, standards, safe handling of inputs, mechanisation, modern irrigation techniques and technologies, post-harvest processing and packaging, logistics, transport and marketing. Upskilling could be

done through a green extension approach and guidance on agricultural innovation.

Statements of intentions and commitments from involved groups of actors

There is huge potential to boost Nature-Positive Food Production in Lao PDR. Working together among strategic partners can drive green and sustainable food production systems with a transformative agenda in cooperation with key actors including all levels of government, development partners, private enterprise, producers, civil society, and consumers in order to ensure a nutritious diet, inclusive society, and resilient environment. The aim is to promote public-private partnership to enhance local capacity and expertise, encourage increased competition, and create opportunities to boost economic growth. This includes building links with the private sector to ensure market access.

Creating a space for different stakeholders and actors in the Agriculture Innovation System to exchange, learn and share is very crucial in boosting nature-positive production. Such as an establishment of a platform on transforming food production system with convergence among two or three ministries at the beginning and then expand coordination and collaboration. At the same time, utilising existing platform such Round Table Meeting, Sector Working Group on Agriculture and Rural Development and its sub-sector working groups, and Lao farmer network will help to address common issues and follow up the progress of intentions and commitments on green and sustainable food production that might lead to policy improvement. These existing platforms should be utilised for monitoring and evaluation of policy implementation and enforcement as well as identifying issues and recommendations.

The government and development partners commit to support and promote nature-positive food production and will push it forward for discussion at national level and support adequate efforts at the regional and international level.

'Advancing Equitable Livelihoods and Value Distribution'⁷

The pathway for Lao PDR to advance equitable livelihoods and value distribution will be to tackle the

⁷ Co-led by MAF and IFAD with contributions from FAO, UNDP, ITC, WFP and ADB

three different streams of challenges and opportunities systematically. This means that there will need to be a coordinated effort for the generation and improvement of opportunities for decent work, incomes and social safety support with the focus on ensuring universality of access to quality incomes, social support and wellbeing, and finally, with a forward-looking intention of mitigating risks and opportunity to increase resilience for all livelihoods.

In practice, this means the unification of efforts by Government, development actors, academics, civil society, the private sector, and others, relying on feedback from stakeholders, and in particular vulnerable groups such as women, youth, and persons with dis-abilities. This requires a coordinated understanding and stocktaking among stakeholders to avoid duplication of efforts – geo-graphically, thematically and financially – and that there is sharing of knowledge or building of synergies across these activities.

This will ensure that livelihood generation, resilience building and acceptable social welfare provisions are

targeting the places that need it most, but in a fair, strategic and more accessible manner. Relevant considerations in this pathway will include how public and private investments can work together, what actors have a comparative advantage in an intervention, and how cross-cutting areas can supplement other actions. Finally, crucial to this will be stakeholder feedback and course correction when necessary. As this track is people focused, it requires an understanding of changes for people and is crucial towards Lao PDR's country development outcomes.

The pathway of advancing equitable livelihoods and value distribution can specifically lead to unique impact towards the achievement of Lao PDR's targets towards the actualisation of the Sustainable Development Goals. Specifically, towards Lao PDR's pathway for progress for people-driven goals such as SDG 1 (no poverty), SDG 5 (Gender equality), SDG 8 (decent work and economic growth), and SDG 10 (reduced inequalities), as well as for other goals cutting across all actions of the food systems like SDG 2 (zero hunger) and SDG 13 (climate action).



Statements of intentions and commitments from involved groups of actors

Lao PDR has the potential to offer even more opportunities and address certain vulnerabilities for people working throughout the sustainable food systems chain to ensure ‘advancing equitable livelihoods & value distribution’. These can be achieved through working together among strategic partners with a transformative agenda in cooperation with all stakeholders at national and sub-national levels including all levels of government, development partners, private enterprises, producers, farmers, civil society, and consumers. With these central roles in mind, below action areas can be mapped:

Form coherent and coordinated multi-sectoral approach at national and sub-national levels and anchor food systems transformation in small-scale production.

- IFAD commits to this through the planning of its projects during IFAD12, including for potential grant resourcing from the Global Agriculture and Food Security Program (GAFSP) through a proposal to be developed in collaboration with WFP, for a second phase for its Strategic Support for Food Security and Nutrition Project.

Support the development, capacity building, innovation/infrastructure and partnership building of agribusiness and micro and small enterprises.

- Asian Development Bank (ADB) will continue committing to the transformation of food systems in Lao PDR. They will also support efforts to improve the business environment, including for micro, small and medium sized agricultural enterprises.

Strengthen the private sector and create a business environment that is conducive to attracting private investment.

- The Lao PDR National Chamber of Commerce and Industry (NCCI) will help to address the knowledge and knowhow for business and support enterprises to grow their agri-business.

- NCCI would like to build public private partnerships and establish of cooperatives for this and focus on domestic productivity then merge in-to markets.

Address specific barriers to inclusive, equitable livelihood development.

- IFAD through its ongoing and pipeline projects will review the access to extension services for smallholders and mapping of relevant public-private partnerships (PPP) opportunities for smallholders.

Strengthen policies and practices to explicitly recognise and respond to close the gender gap by addressing the specific constraints faced by rural women.

- IFAD, FAO, and the Ministry of Agriculture and Forestry commit to this as they continue to mainstream gender, by ensuring equity and/or empowering women in their interventions to address these gaps. They also commit to seeking feedback from women on behalf of themselves and households and advocating to give them a seat at the table for decision making.

Address the legal, institutional and market constraints to the realisation of equity within food systems and inclusion of pro-poor nature-based solutions and climate change policies to improve the capacity of poor communities to manage climate risks on livelihoods.

‘Building Resilience to Vulnerabilities, Shocks and Stress’⁸

A multitude of actions are pertinent in order to achieve food systems which are resilience to vulnerabilities, shocks and stress. The MSD identified the need to scale up sustainable and climate smart agriculture including through measures outlined below:

- Prepare a new **National Plan of Action for Disaster Risk Management and Climate Change Adaptation in Agriculture**, building on the experience of the last plan which ran from 2014-2018.
- Undertake a comprehensive Vulnerability and Risk Assessment (VRA) of agriculture (encompassing crop, livestock, fisheries and forestry) and

⁸ Co-led by MAF, MoLSW, UNEP and FAO with contributions from MoNRE, MoH, WFP, IFAD, UNDRR, UNDP, and UNHABITAT

dependent livelihoods to guide planning of resilience building in food system elements and activities.

- Advocate for the **role of agriculture sector and resilient food system approach in national DRM and Climate Change agenda** of Lao PDR, emphasising inter-sectoral integrated measures and a paradigm shift from disaster response to preventive, risk management approach.
- Advocate within ASEAN for a new **ASEAN Integrated Food Security (AIFS) Framework and Strategic Plan of Action on Food Security in ASEAN Region (SPA-FS) in line with ASEAN Vision 2025 and the SDGs.**
- Advocate for building resilient food system and cross-sectoral collaborative actions in the **ASEAN Agreement on Disaster Management and Emergency Work Programme and other relevant frameworks such as the ASEAN Declaration on Drought Adaptation.**
- Lao PDR may consider joining the Sustainable Rice Platform via the Ministry of Agriculture and Forestry and / or Ministry of Natural Resources and Environment (MoNRE) as a governmental member, joining a global network of over 100 institutional members across the stakeholder spectrum. The Sustainable Rice Platform is a global multi-stakeholder alliance to promote resource-use efficiency and climate change resilience in rice systems – both on-farm and throughout value chains. Goals are to a) improve smallholder livelihoods in developing countries; b) reduce the freshwater & carbon footprint of rice production; and c) offer responsibly cultivated rice in the global market.
- Mainstream risk reduction methods including climate information and services, anticipatory action and innovative financing mechanisms such as insurance/loans.
- Strengthen local supply chains by incentivising value chain investment through stable markets.
- Support to smallholder farmers: strengthen farmers' associations, linking farmers to markets, addressing inequities in access to resources and knowledge, linking to complementary interventions

(social protection, nutrition and school feeding) and prioritising the most vulnerable.

- There is a need to improve the understanding of vulnerabilities and risks in relation to food systems and their use in policy making. This could be done by (a) enhancing risk-related information management, including conducting research to identify enabling and inhibiting factors affecting the food systems as a result of natural disasters or human-made activities/development projects, as well as factors affecting the most vulnerable groups; (b) integrating identified risks and mitigations in the policies and strategies that could be then transacted into programmes and projects; (c) building capacity of local communities on risks and vulnerability associated with their livelihoods and food systems so that they are better prepared in coping with risks events, shocks and stress.
- To help Lao farmers coping with risks, shocks and stress, it is necessary to enhance both the 'Weather Forest System' and 'Early Warning Systems' providing them with useful information.
- There is also a need to focus on research and development on seeds and breeds that are resilient to the climate in a certain context.
- Ensuring sustainable food systems requires involvement of several stakeholders/institutions. Thus, all sectors – public, private, civil society organisations (CSOs) and communities – should come together and collaborate.
- Promotion of small and medium sized enterprises in the agriculture sector, and where possible establish a PPP model.
- In the Lao PDR, to make value chain more resilient we need not only policies that focus on the value chain but also side measures or policy that could support the change in food environments, like supporting local and organic food markets.

Statements of intentions and commitments from involved groups of actors

- UNEP, as a co-convenor of the Sustainable Rice Platform, commits to providing briefings to Government and other stakeholders on the Platform and facilitating Lao PDR's membership and engagement with the Platform.

- FAO as a lead agency for food system transformation and SDG2 will 1) promote the shift toward sustainable and resilient food system in Lao PDR in line with FAO priorities globally and in Asia and the Pacific region; 2) support the development of the new National Plan of Action for Disaster Risk Management and Climate Change Adaptation in Agriculture; 3) build capacity for VRA, climate change impact assessment and foresight planning for adaptive agriculture and 4) strengthen national capacities to design, access climate and implement resilient food system initiatives
- WFP as a partner agency aims to provide assistance⁹ and technical support to target communities and government entities to build their

resilience to climate and other shocks through strengthened capacities in disaster and climate risk management and social protection.

- The Lao academia can also play a critical role in the building capacity of human resources to promote sustainable food systems in the country. Their research, innovation and services could help shape policy development.
- CSOs and private companies can play a significant role to help building resilience and improving the food systems in the country through training, working and supporting farmers, providing them with technical advice and know-how, and engaging them in the local and regional markets through value chain.

⁹ From the draft WFP CSP 2022-2026



Concluding Remarks

The Synthesis Report encapsulates the extensive consultations between stakeholders leading up to, and including, the Member State Dialogues in Lao PDR which took place on 2 June 2021. It will form the basis of Lao PDR's contribution at the Food Systems Summit in September 2021. The Member State Dialogues and the extensive consultations held in its preparation, offered valuable insights from a wide range of perspectives, including from development partners, civil society organisations, non-governmental organisations, private sector representatives, UN agencies as well as several Ministries of the Government of Laos.

The objective of this paper was to integrate the four technical groups' background papers into one synthesised report, highlighting the interlinked nature of the topics; i) ensuring safe and nutritious food for all, ii) boosting nature-positive food production at sufficient scales; iii) advancing equitable livelihoods and value distribution; and iv) building resilience to vulnerabilities, shocks and stresses. Please note that the four background papers are presented in full in the Annexes.

This report focused on identifying key challenges and opportunities facing Lao PDR regarding fulfilling these objectives, as well as analysing synergies across the four thematic areas and other elements of the food system. In many ways, the four thematic areas complement each other, but it was also important to identify inconsistencies and trade-offs between them, so as to find the best possible way towards creating a more sustainable food system in Lao PDR.

One of the key overarching objectives of the 9th NSEDP of Government of Lao PDR is to move toward a more inclusive, sustainable, and equitable growth model. A more sustainable food system, that ensures no one is left behind, is integral to achieving these goals and accelerating progress towards the SDGs.



Annex 1: Ensure Safe and Nutritious Food for All

Leads: Ministry of Health (**MoH**), Ministry of Planning and Investment (**MPI**), World Food Programme (**WFP**), United Nations Children Fund (**UNICEF**).

Supporting agencies and Departments: Food and Agricultural Organisation of the UN (**FAO**), World Health Organisation (**WHO**).

Opportunities and challenges (facing Lao PDR) related to 'safe and nutritious food for all'

The term "food system" refers to all agents and processes related to food, from farm to fork – production, processing, distribution, marketing, and consumption. According to the Food and Agriculture Organisation (FAO), traditional programmes which focus only on increasing production and the supply of food have been shown to be insufficient in reducing food and nutrition vulnerabilities, whereas a food systems approach can deliver better socio-economic and environmental outcomes as well as improved food security, food safety, and nutrition (FAO 2018). The responsibility for improved food systems lies not only with the agriculture sector, but also with health, education, as well as a range of stakeholders in addition to Government including civil society, academia, development partners, private sector and more. To 'Ensure safe and nutritious food for all' every element of the food system – production, processing, distribution, marketing and consumption – should maximise safety, health, and nutrition. Lao PDR faces serious challenges related to 'safe and nutritious food for all,' but at the same time, there are several opportunities for better planning and more effective action.

Challenges:

- Malnutrition is a continuing development challenge in Lao PDR with the country facing a "triple burden" of persistent under-nutrition, micronutrient deficiencies ("hidden hunger") and an emerging trend of overweight and obesity. Despite achievements in recent years on reducing the prevalence of chronic malnutrition, stunting, Lao PDR continues to struggle with several key nutrition indicators, posting some of the lowest statistics in the region. Further acute malnutrition, as manifested through wasting in young children, is on the rise in Lao PDR (LSIS 2017). Stunting and wasting are persistent in remote, rural areas of the country, while overweight and obesity are emerging in Vientiane Capital. It is estimated that malnutrition results in an annual loss of 2.4% of GDP (UNICEF 2013).
- Parts of Lao PDR are vulnerable to chronic and acute food insecurity, recently exacerbated by COVID-19. A survey in 2020 found reductions in agricultural activity, market sales of farmer produce, availability of food, and employment and remittances, across multiple provinces (WFP 2020). Lao PDR domestic food production is increasingly vulnerable to the impacts of climate change, including droughts and floods, which can impact market prices and rapidly impact the consumption of nutritious and safe foods in food insecure regions that rely on self-sufficient production. Often this is in addition to other stresses such as pest infestation and land degradation all impacting the production and consumption of nutritious and safe foods.
- There are still many locations in Lao PDR, where a "traditional" food system is practiced. In some remote villages' households source their food seasonally through a combination of agricultural production, foraging for wild food sources and local marketplaces. With the disappearance of forest coverage and increasing population, these traditional food system choices and diets are changing as access to wild foods decline often being replaced by less nutritious foods products. Securing these traditional food systems that primarily provide for the most

vulnerable communities in Lao PDR should be a key consideration in transitioning to a nutrition centred approach to food, with a particular focus on the nexus between accessing food and the increasing risks in zoonotic diseases.

- Most households still engage in subsistence agriculture, producing primarily for consumption. But even in rural areas, households increasingly rely on market-bought foods, and there is increased consumption of cheap, highly processed foods, such as instant noodles, instant rice porridge, and sugar sweetened beverages, which are harmful for nutrition (World Vision 2020). With this emerging shift in consumption, it is essential that Lao PDR addresses the interpersonal and socio-cultural factors that influence our food choices and behaviours. This is particularly important for children and adolescents as their diets involve interactions with other people (e.g., parents, grandparents, siblings, friends, peers, etc.), as represented by young children where caregivers often decide what they will eat. As children grow into adolescence, they become more independent, whereby the influences of school staff, peers, and other role models, as well as their broader social aspirations affect their consumption behaviours.
- Poverty is a key influencer for poor diets and nutritional status of children and adolescents. Irregular sources and patterns of income influence the types of foods that can be purchased for and by children and adolescents. Affordability of foods is key to the types of foods included in the diets. For instance, calories from eggs are 6-10 times more expensive than calories from the cheapest cereals in many low-income countries (GAIN and UNICEF, 2018). If individuals are expected to bear the cost of nutrient-dense foods, they need to be affordable, particularly for families of lower socioeconomic status.
- Inequality and locational disadvantage also influence the malnutrition situation in Lao PDR. For instance, children in rural areas without roads, those whose mothers have no education or those from ethnic groups or fall into the poorest quintile are 2-3 times more likely to suffer from stunting than children in urban settings, with educated mothers, and those from the richest quintile. Food system interventions that prioritise nutrition should incorporate vulnerability data, ensuring that nutritious, safe, affordable and sustainable diets can be consumed by all.
- While there is ongoing work to address malnutrition and food insecurity, to date there has been little consideration of the role of the food system in driving these issues. There are many needs, such as to: increase production and efficiency; promote sustainable use of natural resources and production of healthy and nutritious foods; provide continued incentives for women's participation; improve access to markets and potential sales of nutritious crops; and improve food consumption behaviours including addressing negative interpersonal and socio-cultural factors.
- There is insufficient quality data and evidence on the pathway from different elements of the food system to different impacts in terms of food and nutrition security. Without a deeper understanding of the socio-economic and food-system drivers that influence the dietary choices of households in Lao PDR, interventions are likely to be limited in reducing the triple burden of malnutrition across the country.

Opportunities:

- The draft National Plan of Action on Nutrition 2021-2025 emphasises the role of the agriculture sector in increasing the availability of and access to nutritious food. This includes increasing production of safe and nutritious crops, vegetables, fruit, small livestock, and other animals, for consumption in the home.
- Recommendations have been formulated on how to support and increase food security in Lao PDR, taking into consideration the short- and long-term impact of COVID-19. These include targeted education of farmers on production of nutritious foods; provision of in-kind or cash support to specific districts, villages and households with acute insufficient access to food; selectively allow agricultural traders greater movement; and continue to focus on households' awareness about nutritious foods (WFP 2020).

- Formative research to understand the social norms and other factors influencing feeding and eating practices of young children and pregnant women has been undertaken for multiple population groups by various development partners.
- Much of the work for nutrition and food security has been multisectoral and collaborative. The multisectoral National Nutrition Committee chaired by the Deputy Prime Minister meets twice yearly and are mirrored at the sub-national level to assist in the implementation of the national nutrition action plan at the local levels. The National Assembly, Ministries of Health, Agriculture and Forestry, Education and Sports, Labour and Social Welfare, Lao Women's Union, and provincial and district authorities, are all involved in nutrition and food security efforts. In addition, the Lao Scaling Up Nutrition Civil Society Alliance (SUN CSA) has over 70 international and local NGO member organisations. These networks of stakeholders and an already established national framework centred on nutrition could provide a suitable platform or entry point to further develop an appropriate pathway for food system transformation.
- There is increasing interest of the private sector to contribute to improved consumption of nutritious and safe foods in Lao PDR. The Scaling Up Nutrition Business Network currently has 34 members and has developed a strategy (2018-2022) which outlines opportunities for the private sector engagement and investment, including workforce nutrition programmes, fortification of targeted foods, potential public private partnership for the production of therapeutic foods, food labelling and consumer protection as well as contributing to social behaviour change efforts for improved consumption of nutritious and safe foods.
- Improving dietary habits of adolescents through interventions in the education system could be an opportunity for changing eating habits of young people at a national scale, moving towards a generation that is nutrition informed and more likely to make consumption choices that consist of healthy, nutritious foods.
- To increase the accessibility of nutritious foods to all households in Lao PDR, including the most vulnerable, there is an opportunity to develop nutrition sensitive social protection mechanisms, building off the current social protection schemes currently being piloted by the Lao Government. Social protection and social safety net programmes often target affordability of foods for families. However, there is often a disconnect between these programmes and nutritional needs. Behaviour change communication and education can be combined with social protection programmes to enhance nutrition objectives. For instance, caregivers can receive information about dietary diversity during health centre visits required for cash transfers. This can then be combined with price incentives to maximise healthy food choices at local markets that are then subsidised under the scheme.
- There is an opportunity to increase investment in diverse smallholder production, striking a balance between smallholder farming and specialised cash crop production for market, particularly at a time where international markets are disrupted by COVID-19. Related to this, there is an opportunity to protect wild foods, and possibly domesticate and manage them in their natural environment, securing safe and diverse food options for vulnerable household.

Practices and policies that have the greatest impact on the achievement of 'safe and nutritious food for all' (in Lao PDR)

Policies:

- The key policies influencing the development of the agricultural sector and the achievement of 'safe and nutritious food for all' are the 9th NSEDP 2021-2025 and the Agriculture Development Strategy (ADS) to 2025 and Vision to 2030. The 9th NSEDP 2021-2025 includes food and nutrition security as a key goal amongst others, while the ADS to 2025 emphasises agricultural production for food security and nutrition.
- ASEAN Leaders' Declaration on Ending All Forms of Malnutrition was adopted by leaders of ASEAN Member States in 2017. The Declaration embodies the highest level of political commitment towards a multisectoral

collaborative approach on food security and nutrition, among sectors such as agriculture, health, education, social welfare, and others.

- However, a policy focus on value chain improvement may need to be strengthened and balanced with attention to non-cash-crops for local and household consumption, for food security and nutrition. These policies must be translated into sector specific action plans which reflect the shared commitment and recognition for their contribution to nutrition outcomes. In other related sectors, the National Nutrition Strategy to 2025 and draft Plan of Action 2021-2025 has strategic objectives to increase availability of and access to nutritious food and to increase behaviour change communication for nutrition.
- The national Decree on Food Products and Feeding Equipment for Infants and Toddlers (No.472/GOL) contribute to the safe and adequate feeding of infants by controlling the promotion and marketing of breast-milk substitutes to ensure that caregivers are not encouraged to formula feed infants when the feasibility, affordability, sustainability and safety cannot be ensured.

Practices:

- Food consumption practices in Lao PDR remain unacceptably poor. Less than half of infants are fed optimally in the first 6 months of life, especially, in urban settings where mothers are exposed to aggressive marketing and promotion of artificial formulas by the private sector. Despite nutrition education, due to traditional beliefs and social norms, only a quarter of children aged 6-8 months are fed diverse diets and while this improves slight in older children only a third of children aged 6-24 months are fed diverse diets (LSIS 2017).
- While limited data exist on the quality of diets during adolescence a study undertaken in a district of Vientiane province found that less than a quarter of adolescents consume vegetables more than once a day, whereas nearly half consume soft drinks daily and processed snacks at least weekly (Kounnavong S 2020).
- In rural areas with roads, only one third of pregnant women achieve minimum dietary diversity, while in rural areas without roads it is only one in five women (LSIS 2017).
- In Lao PDR diets are significantly influenced by food affordability - while inexpensive nutritious foods, such as blood, offal, green leafy vegetables, seeds, various pulses and small fish are available in many local markets, these are not accessible financially or physically, especially in remote mountainous areas (WFP 2016).
- In general, for households relying on rain-fed agriculture, year-round access to food is constrained by seasonal fluctuations in rainfall, weather and climate, affecting the quantity and quality of local food and produce destined for markets. Animal-source foods, rich in nutrients, are less accessible or present in Laotian diets, and requirements for calcium, vitamin B1, folic acid, iron, and zinc, are particularly difficult to meet from the available non-animal foods (Ratsavong K 2020).
- The food and agriculture system in Lao PDR currently provide limited positive impact for healthy diets, as farmland is primarily used for rice production and the extent of crop diversification is limited with non-rice foods largely sold into neighbouring countries (WB 2017).
- Nutrition programming in Lao PDR aims towards “convergence,” which refers to simultaneous actions across sectors (such as agriculture, WASH, health, and education) in specific target districts and villages. National, provincial, and district-level multisectoral nutrition committees support planning, budgeting, implementation, and monitoring of nutrition-specific and nutrition-sensitive interventions and lessons for how to improve coordination and concerted action are being generated. However, lack of resources limits the scale of these comprehensive approaches.

What synergies does 'safe and nutritious food for all' create between different food system elements and pathways?

Efforts to promote 'safe and nutritious food for all' directly imply improving diets, particularly of children, adolescents, and women who are amongst the nutritionally most vulnerable. This includes interactions and improvements across key elements of the food system including production, processing, distribution, marketing, and demand (consumption). For instance, the food supply chain provides the foods that are available in the food environment for consumers to purchase. Different incentives and disincentives to produce certain foods in the supply chain have an impact on the quantity, quality and price of foods that are available in the external food environment.

Similarly, the demands, needs, and preferences of consumers influence and are also affected by the external food environment and the food supply chain. Product formulation often responds to the needs and preferences of consumers such as convenience, taste preferences, etc. In the other direction, the purchasing behaviours of consumers are influenced by point-of-sale advertising and promotions by food retailers. Actions in one part of the food system are not isolated - different effects in one part of the system can amplify or dampen the effects in another. For instance, regulations to reduce sugar content in manufactured foods such as sugar-sweetened snacks and beverages may result in consumer demand shifting to other substitutes that are not necessarily more nutritious e.g., beverages with other sweeteners. Given the non-static nature of food systems and constantly changing environment, it is important to continuously develop and assess the capacity of the food system to deliver nutritious, safe, affordable and sustainable diets, and the reverberating effects of actions across the food system.

Synergy 1: Food chains. In terms of food supply chains, efforts focused on 'safe and nutritious food for all' can and should work in synergy with agricultural production, post-harvest processing and distribution, natural resources management, and agricultural research and development. It should be possible to increase efficiency while preserving and supporting diverse smallholder production. One example is to support the development of small-scale egg cooperatives, which increase egg supply, lower the price of eggs, and support the inclusion of more eggs in children's diets (GAIN and UNICEF 2018).

Synergy 2: External food environments. In terms of external food environments, efforts on 'safe and nutritious food for all' should work in cooperation with, and even co-locate interventions in, markets and schools, improving and maintaining food safety and improving availability of and incentivizing nutritious food choices. Despite increasing supermarket penetration, informal markets remain a key source of food in Lao PDR which often provide mostly nutritious foods including fruits and vegetables. However, informal markets are increasingly supplying more ultra-processed foods high in fat, sugar and sodium (e.g., sodas, cookies, chips, crackers), and concerns about food safety remains to be addressed. While some regulations are in place in Lao PDR, such as regulations on the promotion of breastmilk substitutes, other regulations pursued in other countries, such as bans on sugar-sweetened beverages in or near schools, are not.

Synergy 3: Personal food environments and behaviours. 'Safe and nutritious food for all' is directly related to the consumption element of the food system, focused on personal food environments and behaviours, including food choices, food preparation, and eating habits. The social norms and practices are key, e.g., social beliefs about certain foods including nutritious foods might limit their provision to young children (e.g., eggs, liver) while also knowledge, skills, experience, income, and time of caregivers also limit what food is procured, prepared, and provided to children. In some settings, attention is needed to address the social norms and practices that marginalise certain groups (e.g., adolescent girls who are married and/or pregnant) and their ability to achieve healthy diets. Additionally, with social media, the internet, and television, in addition to marketing and advertising across these platforms, social trends and norms are increasingly more global. Older children and adolescents are heavily exposed to media and social media, and although there are no certain impacts of this exposure on dietary behaviours, it might influence their social and food-related aspirations. Personal preferences and tastes are also important factors that interact to inform what ends up on a children and adolescents' plates. Food preferences develop and are reinforced early in

life. The dynamics between parents and children, including children's request for certain foods, informs what children end up eating. Older children and adolescents often make decisions related to their preferences on their own, with their food decisions often influenced by personal likings, taste preferences, self-efficacy, and body image rather than knowledge and education about food and nutrition.

Possible trade-offs related to 'safe and nutritious food for all'

While efforts to promote 'safe and nutritious food for all' can generate synergies across all elements of the food system, these efforts can also set up trade-offs which require further context-sensitive analysis and prioritisation. It will be important for Lao PDR to balance the benefits of economic development with impacts on public health, the environment, and social equity. Particular attention should be paid to rural women and maternal, children's and adolescents' health, as well as to vulnerable groups, including ethnic-minority groups, persons with disabilities and the elderly.

Trade-off 1: Food production – childcare. Where rural women often must choose between producing food for the household and providing care for infants and young children, they are more likely to produce food. Not only health services, but also agricultural extension services, should be tailored to families' needs; families with young children need advice on home gardens and small livestock (chickens, ducks), so that women, who provide the bulk of childcare, can produce food and at the same time continue to provide care. Both health and agricultural services should engage men to promote more equitable labour in food production and childcare.

Trade-off 2: Cash crops – nutrition. Efforts that focus exclusively on increasing agricultural production may not be consistent with efforts to promote 'safe and nutritious food for all.' In recent years, sections of the agriculture sector have moved to single cash crop production for national and regional markets, including concessions and plantations (WFP 2020). While market-oriented agriculture increases income at village and household levels, it may not translate into 'safe and nutritious food' as traditional smallholder farms that are known to produce higher rates of diversified food sources for local populations decline, whilst the consumption and spending behaviours of households do not necessarily reflect nutrition positive choices. With this, it is important that interventions or commercial opportunities aimed at increasing family incomes is complemented by other behaviour change practices to maximise nutrition outcomes. A recent report recommended a review of the impact of changing land use patterns on access to nutritious food in Lao PDR (World Vision, 2020).

Trade-off 3: Markets – food safety and nutrition. In terms of external food environments, efforts to promote greater development of markets may not be consistent with efforts to promote 'safe and nutritious food for all.' As more households become increasingly dependent on purchasing food, people with a socioeconomic disadvantage, or living with less expendable cash may face greater challenges in managing their own food sovereignty as price dictates what they can and cannot consume. This is particularly apparent in peri-urban areas or in communities recovering from natural disasters as informal and self-grown food sources become scarce.

In addition, even families with greater expendable incomes, may not make nutrition positive choices simply because there is an increased availability and diversity in food options through marketplaces as the social and cultural aspirations also influence our consumption behaviours (World Vision 2020). Promoting 'safe and nutritious food for all' in external food environments may require regulating markets and food import, including the marketing of fortified food products, to maximise the incentives and accessibility of healthy food choices. Key agendas that relate to 'safe and nutritious food for all' include poverty reduction and social protection, which need to be pursued at the same time as, and balanced with, market development. Market development should be designed to enable all people access to nutritious foods and complementing policies that empower the most vulnerable to make nutrition positive choices should be considered.

The pathway for Lao PDR to 'ensure safe and nutritious food for all'

The definitive pathway for Lao PDR to ensure 'safe and nutritious food for all' will require broad consultation. There has been longstanding interest in the international development community to link agriculture to nutrition, and to

develop a pathway for countries such as Lao PDR to improve the food system across a balanced socioeconomic and environmental approach. However, the direct path in Lao PDR is still to be discussed. The following are suggested for consultation and prioritisation.

Key elements of the pathway should include (informed by Hawkes et al. 2020):

- Better understanding of nutritional issues, food behaviours including the perspective of the consumers and how this interacts with the food and social environment to influence behaviours and taste preferences (cost/marketing, availability etc.) and setting of clear research priorities;
- Development of evidence-based national dietary guidelines which nuance the multiple burdens of malnutrition across different contexts;
- Development of nutrition standards for school feeding and social protection programs;
- Improvements in food environments that promote nutrition and food security, including strengthening of local supply chains;
- Incentivise innovation by the private sector to make nutrient-rich foods affordable, accessible and safe for consumers, while at the same time supporting the livelihoods of producers e.g., product reformulation or innovative technologies that improve the productivity and safety of healthy, affordable foods by smallholders. Identification of incentives and disincentives, and support for nutrition-sensitive innovations, along both domestic and international supply chains;
- Greater nutrition focus in financing and other public policies, particularly in agriculture. Small- and medium-sized enterprises need access to financing and capacity-building resources to support improved production of safe and nutritious foods;
- Greater investment in infrastructure and the agricultural value chain, prioritising areas that are food and nutrition insecure, i.e., roads from farm to market in remote areas;
- Creation of demand for healthy foods especially among children and adolescents as this is the key periods in time in which values are shaped about food. Nutrition education, sensitisation, training, social media campaigns, marketing techniques, as well as economic incentives and disincentives can help to shift demand. However, initiatives need to reflect what matters to target populations. For instance, with adolescents, nutrition is not the motivating priority when they choose what foods to consume. Discussions about what is relevant to them are important in order to understand what levers can effectively motivate change.

Further elements of the pathway linking agriculture to nutrition, which are potential areas for intervention, are likely to include (Hoberg et al. 2013):

- Higher incomes – these improve household wellbeing and enable more and better choices for households, although it's important to note that higher incomes may lead only to a modest effect on nutritional outcomes;
- Provide support to specific vulnerable groups who are food insecure and cannot afford nutritious food through the rollout of a nutrition sensitive social safety net;
- Increasing access to and consumption of nutritious foods through higher agricultural production and lower food prices;
- Increasing income and economic empowerment of women;
- Safeguarding caregivers' capacity and practices, i.e., even as women are more involved in agricultural production, food processing and marketing, to continue to support women in care and feeding of infants and young children;
- Improving health and nutrition of women.

Institutional elements of the pathway are likely to include:

- Creation of an enabling policy environment that protects the food and nutrition needs of all individuals, especially vulnerable populations. This should include interventions that address cross-cutting issues such as environmental protection, climate adaptation and resilience, social protection, and gender equity;
- Creation of a multisectoral mechanism, such as a technical working group that is mandated to advance the Member State Dialogue, planning and coordinated action in developing a balanced and inclusive food system in Lao PDR. This working group should at a minimum involve key stakeholders and Ministries concerned with advancing food and nutrition security;
- Identifying and enacting fiscal policies to shape elements of the food system that maximise the opportunity to provide 'safe and nutritious food for all';
- Increasing the voice and visibility of rural people who are increasingly vulnerable to shocks and regional economic shifts impacting the food system, so that they can participate in national, provincial, and district planning and programmes. One way to do this is by conducting more applied research to document and analyse the lived experience of people experiencing the impacts of food system change, further documenting examples of local adaptation and indigenous solutions through effective two-way communication streams and shared learning;
- Continued investment in districts and villages to develop and implement sound agricultural plans which include consideration of food security, food safety, and nutrition.
- The creation of an enabling environment should include the involvement of the National Assembly, which can engage in representation, legislation, budget allocation, and oversight (IPU and FAO 2021).

Statements of intentions and commitments from involved groups of actors

All stakeholders have identified the need for further convergence in planning and implementation of the food system and nutrition programming. Food is fundamental to the improvement of the nutrition status in Lao PDR and the sustainability of the investments made thus far.

There is also strong acknowledgement that food production and value chain improvements are insufficient in delivering on nutrition outcomes and ensuring that the food produced in Lao PDR reaches the bodies of the Lao community, particularly children and adolescents. Of equal importance is a commitment to education and establishing a food system and non-food environment that incentivises consumption patterns and behaviour that has a positive impact on healthy nutrition choices. This requires a multi-sectoral and multi-stakeholder commitment to disrupt the current economically prioritised food model in Lao PDR.

The initial consultations also identified that in reshaping the food system to deliver on 'safe and nutritious food for all', each action must be built on the principles of leaving no one behind. This will ensure that policy decisions consider the impacts on smallholder farmers, vulnerable groups, including women, children, people with disabilities, ethnic groups and poor households in both urban and rural communities. Where policy interventions may affect the livelihoods and resilience of vulnerable groups, complementary programmes should be undertaken in parallel to maximise the food and nutrition security for all.

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Food and Agriculture
Organization of the
United Nations

Annex 2: Boost Nature-Positive Food Production at Sufficient Scales

Leads: Ministry of Agriculture and Forestry (**MAF**) and the Food and Agricultural Organisation of the UN (**FAO**)

Partnering agencies and departments: Ministry of Industry and Commerce (**MoIC**), Ministry of Planning and Investment (**MPI**) National Institute of Economic Research (**NIER**) The Ministry of Natural Resources and Environment (**MoNRE**), International Trade Centre (**ITC**), United Nations Development Programme (**UNDP**), United Nations Environment Programme (**UNEP**), Swiss Agency for Development and Cooperation (**SDC**) and United Nations Industrial Development Organisation (**UNIDO**).

Major opportunities and challenges (facing Lao PDR) related to 'Boosting Nature-Positive Food Production at Sufficient Scales

A strong and efficient agriculture sector will remain critical for meeting the country's aspirations related to poverty reduction, inclusive growth and ultimate graduation from Least Developed Country status. Agriculture production comprises 16.6 percent of national GDP, accounting for nearly 70 percent of total employment and over 60 percent of earnings and expenditure by low-income groups. For the near future, agriculture will continue to be the primary source of income and livelihood for most of the population—many of whom remain at the subsistence level. Reducing poverty and more widely sharing development benefits requires measures to help farmers and producers along the supply chain increase productivity, become more commercially oriented, and better connect to markets.

Efforts to boost Nature-Positive Food Production in Lao PDR are at a promising stage with the recognition that increasing the value of agricultural products via agriculture innovation could improve food security and safety, nutrition, employment and reduce reliance on imported products. Laos could continue to be a biodiversity hotspot where local populations consume a highly diverse diet of environmentally sustainable agriculture products and value chain. Within Lao culture, the existing appreciation of hundreds of different rice, crop and fruit varieties, non-timber forest products (NTFPs), aquatic species and insects, along with the recent arrival of more commercial forms of agriculture, provides a strong foundation for boosting nature-friendly food systems. The impact of the COVID-19 pandemic on food security demonstrates the durability and resilience of Lao food systems. Severe food shortages, predicted by UN agencies last year, never materialised.

Lao PDR faces a range of challenges in the agricultural sector including problems related to natural disasters (floods, droughts, erosion), climate change, sustainable management of natural resources, the spread of plant pests and animal diseases, concerns about food safety, low productivity, poor post harvesting practice and storage, and inadequate food marketing and distribution systems. In addition, agricultural producers are affected by poor product standards and threats to public health from unsafe use of herbicides and pesticides. The high potential and increased practice of cattle raising in upland Lao regions, while providing some environmental benefits over traditional monoculture crops such as maize and cassava, will present additional challenges as livestock operations contribute to increased GHG emissions while adding to the demand for animal feeds used in cattle production. Addressing these risks and challenges and adapting to changes associated with agricultural production will require strategic policy support and innovative approaches along the entire value chain. At the same time, efforts should be

made to enhance implementation and enforcement of existing legislations and policies as well as increasing efficiency of policies.

Practices and policies that have the greatest impact on the achievement of 'Boosting Nature-Positive Food Production at Sufficient Scales' (in Lao PDR)

The aim and perspective of Nature-Positive Food Production are reflected in the 9th NSEDP for Lao PDR. Outputs set forth in the NSEDP include "robust and sustainable economic growth" as well as "green growth and climate action" which include priorities such as green agricultural practices and diversifiable and sustainable production. Therefore, "Nature-Positive Food Production" is fully aligned with the 9th NSEDP, National Green Growth Strategy, and Agriculture Development Strategy to 2025 and Vision to 2030. Investment promotion law elaborates provisions for investment incentives for investment protecting natural resources in green direction and sustainably including environmental-friendly agricultural production, processing industry, etc. In this way, the concept of Nature-Positive Food Production contributes both to processes and support mechanisms in the agriculture sector to further embed and spread sustainable food production practices.

The Agriculture Development Strategy 2021-2025 (ADS) provides direction for sector improvement and development to achieve breakthroughs in: (1) improved quality direction; (2) enhanced green direction; (3) sustainability; and, (4) resilient growth direction. An important element of the ADS is to "increase the efficiency of green and sustainable agricultural production by promoting integrated agriculture, good agricultural production, chemical-free agriculture, and organic farming". Moving toward more sustainable development will ensure sufficient production that is responsive to consumer demand, adherence to food and nutrition security standards, and production of agriculture products that are both safe and healthy, while contributing to economic growth, poverty reduction, minimizing food insecurity, ensuring good nutrition and sustainable management and conservation of the environment and natural resources. The Green and Sustainable Agriculture Framework (GSAF) provides strategic elements to direct the response and implementation of the National Green Growth Strategy (NGGS), National Nutrition Strategy and Plan of Action to 2025 and National Agrobiodiversity Programme and Action Plan 2025.

There already have been numerous very good interventions and projects in Lao PDR from which lessons can be learned and on which can be boosted nature positive production. Successful aspects of development projects can be intensified or upscaled as appropriate:

As part of the agrarian transition currently taking place in Laos, regional markets have created opportunities for small producers to capture 'quick wins' from the responsible exploitation of natural resources, including natural biodiversity and soil fertility. Different steps have been taken towards the sustainable use of these resources, particularly related to organic agriculture, diversifiable and value adding products. Practices on the ground such as Organic agriculture, Good agriculture practice, Agroforestry, Agroecology, Low-input, Pesticide free, Aquatic animal production e.g., Rice field aquatic production, Good Animal Husbandry Practices (GAHP) are proving to be win-win interventions for people and planet through applying a comprehensive systems approach, especially when working with tea and coffee farmers and, to a lesser extent, with other forest products such as cardamom and sugar palm. At the central level, national organic agriculture standards and a national labelling system for organic products have been developed. Organic farmer's markets have been promoted and a Lao Certification Body and procedures for organic certification have been established.

What synergies does 'Boosting Nature-Positive Food Production at Sufficient Scales' create between different food system elements and pathways?

Due to rapid regional economic growth and accelerated urbanisation in Lao PDR and neighbouring countries, the demand for traditional and commercial agriculture products has increased, especially from middle and high-income consumers. As a result, investment in agricultural enterprises has become strategically important and is rapidly expanding. Investors are mostly regional multinational agribusiness companies with existing agricultural and non-agricultural holdings throughout the country. This also includes small and medium-scale enterprises and private

investors promoting cash crops via contract farming arrangements or through renting agricultural land from farmers on short-term leases or long-term land concessions.

Rising incomes of consumers in the growing middle-class, in the region and within the country, are creating increased demand for clean and safe food products. Regional and national markets for high quality and safe sub-tropical fruits, vegetables and herbs offer good commercial prospects for farmers to achieve better livelihoods. Although Laos is less densely populated than most of its neighbours, it has limited arable land and depends on intensive use of upland and forest areas to ensure food security. The (slowly) rising demand for organic products is certainly important, but much more could be achieved through stricter regulation of non-organic sectors. The inherent difficulty of reconciling an export-oriented agriculture strategy with the promotion of agroecology is apparent and must be balanced, given that the health of natural systems and agriculture production are interdependent and best maintained in a circular, complementary manner. By some measures, agroecological conditions in Lao PDR are favourably compared to other countries in Asia. But the agriculture sector is constrained by limited investment of both public and private, and insufficient infrastructure. Input and output markets remain fragmented and underdeveloped with limited access to credit by farmers and producers.

Smallholder agricultural activities are part of the strategic orientation for the young farmers or producers to continue their careers in agri-food production. Work with young farmers to maximise the use of digital platforms and social media will help to promote and create consumer awareness on nature-positive food productions. This can include introducing mechanism and practical steps to promote and focus on youth agri-entrepreneurs/farmers by creating market and income generation opportunities.

Possible trade-offs related to Boosting Nature-Positive Food Production at Sufficient Scales?

The Lao agriculture sector is characterised by large areas of upland fallow, many low-volume smallholder producers, and relatively small and inexperienced agribusiness enterprises. Nevertheless, agriculture is a priority sector in terms of workforce employment and economic development. Therefore, the Government promotes investment in existing farms and enterprises, irrigation systems, and infrastructure to make them more effective and commercial-oriented as well as to attract agribusiness investors to intensify current development levels. Commercial production in the agriculture sector faces tough competition from neighbouring markets, particularly China, Thailand, and Vietnam. Lao PDR has, as a consequence, been pursuing policy objectives that will enable the country to grow as a relevant actor in a highly competitive agricultural trade environment.

To achieve the country development agenda to 2030 faces challenges along the way especially in eliminating all forms of malnutrition by ensuring that sufficient quantities of safe, nutritious and affordable food are available to all. On the other hand, it requires the country to create the growth and employment opportunities necessary for eradicating poverty, sustaining biodiversity and the natural resource environment, and adapting to the growing pressures of climate change.

While large agribusiness contributes to greater income and creates more employment opportunities, it faces with several disadvantages, including: (i) granting land use rights to cultivate large areas of land in monocrops; (ii) loss of flexibility in the agriculture sector; and, (iii) loss of control of land management. Considering the presence of a significant share of the country's farmers conducting agriculture activities on, or interfacing with the forests and forestlands, a core focus of Nature-Positive Food Production for Lao PDR would be on the balance to sustain forest landscapes for their ecosystem services while providing agriculture production functions. Challenges that underpin the sustainability of these forest and nature-friendly production models include institutional issues, with tenure security foremost among them. Examples of granting of land concessions to foreign investors for plantations: bananas, cassava, avocados, etc.; taking fallow land from smallholder farmers.

Green and sustainable agricultural practices typically require more efforts, labour and skill than chemical-intensive industrial farming. This presents a challenge in a country with low population density and a weak technical education system, especially in view that the ambition of most young people is to leave the agriculture sector with

many preferring to seek employment in manufacturing and service enterprises. Potentially, Nature-Positive Food Production could generate added value through the creation and expansion of functional markets that are inclusive and accessible to small producers to ensure increased income opportunities and move beyond subsistence-based production. Markets and associated value chains at the local, national, and regional level demand quality, safe and clean products and will, in part, drive the shift to more sustainable production systems. At the same time, the Nature-Positive Food Production initiative could intensify awareness of the benefits of diversified foods, clean and safe food products, and efficient production practices that are adapted to the varying environmental and socio-economic conditions across Lao PDR. To achieve these objectives, it will be critical to reorganise a national agricultural policy, and advisory services and better promote highly sustainable production practices to increase viable and environmentally friendly options for producers and processors.

Pathway for Lao PDR to ensure 'Boosting Nature-Positive Food Production at Sufficient Scales'.

With reference to the Green and Sustainable Agriculture Framework developed by MAF, the Nature-Positive Food Production approach focuses on Organic agriculture, Agroforestry, Agroecology, Low-input, Pesticide free. These includes crops (irrigated and rainfed), livestock, fisheries, agroforestry, and non-timber forest products (NFTPs) sub-sectors. Agroforestry and NFTPs represent areas of transitional linkage between commercialised agricultural crops, livestock rearing, fisheries, and forests and rangelands. These five sub-sectors make significant contributions to food and nutrition security as well as poverty eradication in Lao PDR.

Consistent with international trends, Lao PDR is pursuing the implementation of GAP as a minimum standard across all production systems to be adhered to by small producers and private enterprises. Whether producing industrial crops or unique regional specialty products, GAP standards are seen as the modern foundation for the commercial production of commodities with the potential of expanding further into more stringent sustainable production systems that promote the concepts of reduced external inputs, recycling of materials and energy (circular economy), and organic agriculture. The government has ambitions for GAP to be implemented throughout the country and is identifying opportunities for pilots in selected areas for future roll-out. Other voluntary certification methods may also be promoted such as Participatory Guarantee Systems, Geographical Indications and Specialty Rice/Coffee.

Creation of an enabling environment requires an overall improvement of knowledge and understanding of concepts, processes, opportunities and challenges by all actors of food production system. To do this, both demand and supply sides needs to be taken into great consideration. Developing capacities of producers to intensify efforts and good practices, and improving the policy environment (e.g., access to credit, applying effective and efficient incentives) will contribute to boosting nature-positive production and drive the transformation of food production systems.

In order to accelerate food transformation to be nature-positive food production, three investment areas that need partners' attention: (1) Green Agricultural Innovation, research and Technologies; (2) Green Extension; (3) Green Markets and Value Chains. While efforts should be made to increase investment or funding in research and development and extension to underpin agricultural innovation, farmers and producers need to be upskilled in various forms of implementation of regulations, standards, safe handling of inputs, mechanisation, modern irrigation techniques and technologies, post-harvest processing and packaging, logistic, transport and marketing. Upskilling could be done through a green extension approach and guidance on agricultural innovation.

Statements of intentions and commitments from involved groups of actors

There is huge potential to boost Nature-Positive Food Production in Lao PDR. Working together among strategic partners can drive green and sustainable food production systems with a transformative agenda in cooperation with key actors including all levels of government, development partners, private enterprise, producers, civil society, and consumers in order to ensure a nutritious diet, inclusive society, and resilient environment. Promote public-private partnership to enhance local capacity and expertise, encourage increased competition, and create opportunities to boost economic growth. This includes building links with the private sector to ensure market access.

Creating a space for different stakeholders and actors in the Agricultural Innovation System to exchange, learn and share is very crucial in boosting nature-positive production. Such as an establishment of platform on transforming food production system with convergence among 2-3 ministries at the beginning and expand coordination and collaboration. At the same time, utilizing existing platform such Round Table Meeting, Sector Working Group on Agriculture and Rural Development and its sub-sector working groups, and Lao farmer network will help to address common issues and follow up the progress of intentions and commitments on green and sustainable food production that might lead to policy improvement. These existing platforms should be utilised for monitoring and evaluation of policy implementation and enforcement as well as identifying issues and recommendations.

The government and development partners commit to support and promote nature-positive food production and will push it forward for discussion at and supports from the regional and international level.

Annex 3: Advancing Equitable Livelihoods & Value Distribution

Leads: Ministry of Agriculture and Forestry (MAF) and International Fund for Agricultural Development (IFAD)

Partnering agencies and departments: Food and Agriculture Organisation of the United Nations (FAO), United Nations Development Programme (UNDP), International Trade Centre (ITC), World Food Programme (WFP) and Asian Development Bank (ADB)

Major opportunities and challenges (facing Lao PDR), related to 'Advancing Equitable Livelihoods & Value Distribution'

With agriculture accounting for 80% of employment (and half of GDP), and as the largest contributing sector (36%) to the national unemployment rate, there are clear linkages between the challenges and opportunities of strengthening food systems and improving livelihoods. Lao PDR has paved important groundwork to further modernise, commercialise, become more sustainable, become more entrepreneurial and can bring about new opportunities and further develop existing livelihoods through production, aggregation, processing, distribution, consumption, and disposal.

Major opportunities and challenges exist in at least three different streams:

The first is generating and improving opportunities for decent work, incomes and social safety support. There are significant opportunities to generate new employment to reduce the current unemployment rate of 9.4%, promote decent work, and break down the socio-economic disparities by ensuring decent wages for employment across activities of the food system. There is also space to promote fair labour practices and develop social safety nets for all. In this area, there are opportunities for increasing productivity, increasing sustainable infrastructure, commercialisation in existing and emerging markets, entrepreneurship and agribusiness for in-demand crops, livestock and fisheries. Another important opportunity is to fill gaps of qualified personal with vocational or academic skills by improving expertise through capacity development; areas include production and relevant agribusiness sectors (such as plantation/cultivation, soil analysis, plant diseases and plant protection, veterinarian and fishery disciplines, processing methods, transport, and more sustainable disposal), among others. An additional crucial area is to increase how competitive entrepreneurs and enterprises can be in markets through innovation, technologies, infrastructure, advisory services, quality compliance building and policies. Connected to this will be the shifting of business environments in these areas in order to attract private investment and develop a more sophisticated private sector. Finally, there are opportunities to improve the labour protection laws and social welfare provisions.

In parallel, there is a challenge, and great opportunity in ensuring universality of access to productive inputs, quality incomes, social support and wellbeing to all. At the heart of this stream is how food systems can go the last mile to reach those most vulnerable, particularly to empowering women, youth, indigenous peoples, persons with disabilities, and generally those identified as most disadvantaged in job markets. Specifically, there is space to improve inclusivity in food systems by ensuring rural populations achieve higher incomes and more decent employment opportunities. Additionally, there remain relevant challenges and opportunities to address gender gaps. This includes empowering women's safety in the workplace through the elimination of violence and harassment, and ensuring their access to land tenure, inputs, finance, services and decision-making roles, all of which provide

more viable channels to improve decent livelihoods. There exist also opportunities to better target employment gaps and social welfare gaps for persons with disabilities and a growing number of youth, in order to address current and future issues. Concurrently, there is the opportunity to work towards completely eradicating the worst forms of child labour.

Finally, there is the challenge of mitigating risks and opportunity to increase resilience for all livelihoods. The final stream is to address the challenges around advancing livelihoods and value distribution in a resilient manner; as the provision of short term or fragile support to livelihoods is not enough. There are opportunities to improve resilience by putting in place approaches that promote economic confidence, offer stability and inspire calculated risks or innovation in food systems, including at individual, community, and national levels. In particular, there are opportunities to protect and advance livelihoods that have been adversely affected by the impacts of COVID-19, including around access to inputs, markets, distribution and much more. Beyond livelihoods, there are opportunities to build social safety nets and local and national levels in response to the pandemic, ensuring fall back protection when work is difficult. The pandemic has also presented lessons and further opportunities to prepare for unforeseen future shocks. This is especially true for addressing environmental impacts; specifically, there are opportunities to address and prepare for natural disaster and climate related risks through resistant agricultural production techniques, infrastructure and value chains. Finally, there exists enormous economic opportunities that are also nature positive in reducing reliance on extractive sectors as well as increasing reliance on renewable energy.

Practices and policies that have the greatest impact on the achievement of 'Advancing Equitable Livelihoods & Value Distribution' (in Lao PDR)

Related to policies, this track can be highly impacted by the priorities set out in Lao PDR's Agricultural Development Strategy to 2025 and Vision to 2030; where increased expertise, production, modernisation, commercialisation and sustainability around agriculture, livestock and aquaculture are key, as are actions of farmers up to levels of government. Important practices under these areas will be ensuring that climate-smart techniques are employed, which can mitigate consequences of climate change, as well as sustainable practices are used from production through aggregation, processing, distribution, consumption and disposal – in order to reduce impact on the environment and climate. Gender mainstreaming and empowerment of women and vulnerable citizens are listed as one of the key principles for the implementation of the Strategy and Vision.

There are also clear linkages with its National Plan of Action on Nutrition (2021-2025), with ambitions to improve value chains, specifically its focuses on tackling post-harvest, food processing, preservation and storage for nutrition, as well as increased domestic investment in nutrition aimed at sustainability – all which can be excellent entry points for improved livelihoods and require cross-cutting thinking. Important practices in this area include ensuring workplace nutrition and the importance of promoting a workplace that takes into consideration nutrition needs of staff and understands the implications of poor nutrition on employee productivity.

The ninth Five-Year National Socio-Economic Development Plan (2021-2025) is also highly relevant towards achieving equitable livelihoods and value distribution through its focus on incorporating public and private investment in rural infrastructure, technology, and micro and small enterprises including those across agricultural value chains, and importantly, ensuring vulnerable groups access livelihoods opportunities and social support to contribute to national socio-economic development. Important practices in this area include ensuring inclusive protections ensuring that women, youth, persons with disabilities, and other vulnerable groups equally participate in and benefit from socio-economic development; in particular the provision of decent work for a growing number of youth will be key.

What synergies does 'Advancing Equitable Livelihoods & Value Distribution' create between different food system elements and pathways?

About 80%¹⁰ of the world's extreme poor live in rural areas and most rely, at least in part, on natural resource-based livelihoods for their economic well-being and food security and nutrition. Most of the poorest are involved in food

¹⁰ https://www.un.org/sites/un2.un.org/files/at_4_discussion_starter.pdf

systems as small-scale agricultural producers, fishers, pastoralists or forest-dependent communities as well as agricultural wage workers, and those engaged in micro, small and medium enterprises promoting businesses along food value chains. Inequality in access to and ownership of land, agricultural assets and natural resources and income are complex and related concerns for poverty and food security and nutrition.

Similarly, Lao PDR faces the same issues. More than 70% of the population resides in rural areas with more than 80% engaged in the agriculture sector. Although Lao PDR is less densely populated, it has limited arable land and depends on intensive use of not only lowland, but also upland and forest areas to ensure food security. The agriculture sector is also constrained by limited investment, both public and private, insufficient infrastructures and the occurrence of natural disasters. Input and output markets remain fragmented and underdeveloped with limited access to credit by farmers and producers.

Even with the mentioned challenges to agricultural, agribusiness, livestock, aquaculture and forestry sectors, based on the potential of the natural resources and production tradition of people in each location, Lao PDR has much potential to further modernise, commercialise, and become more sustainable, and can bring about new opportunities and further develop existing livelihoods through production, aggregation, processing, distribution and consumption and disposal in these areas. Some key synergies in the food system include:

- Coordinated resilience building. Policies, technologies, practices and partnerships that increase the capacity of food systems to anticipate, prevent, reduce and effectively manage the multiple risks and build back better in recovery from shocks are necessary to foster more sustainable food systems. Steps to build resilience can be deployed at multiple levels and require integrated measures involving risk assessment, governance, ecosystem-based Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA), inclusive and gender sensitive approaches, nutrition-sensitive and shock-responsive social protection and others¹¹; This is particularly relevant to Action Track 5 of the MSD (Topic Four): Building resilience to vulnerabilities shocks and stresses;
- Systematic resilience building. Building resilience is also required across food system elements (environment, people, inputs, processes, infrastructures and institutions) and activities (from production, processing, distribution to preparation and consumption of food and waste management) with due recognition of their interlinkages and how they will achieve the socio-economic and environmental outcomes with poverty reduction, food security and improved nutrition status at the centre. This is required for agriculture, livestock, and aquaculture, as well as the agribusiness and micro- and small- enterprises focused on provision of inputs, transportation, processes, selling, buying, and cooking/serving in food systems;
- Nutrition. Developing livelihoods and food systems through agriculture, livestock, and aquaculture provides an opportunity to ensure diverse diets that support the health of populations. There can be close linkages with the Food Systems Summit Action Track 1 (Topic 1): Ensuring access to safe and nutritious food for all;
- Sustainability and nature-positive systems. Lao PDR continues to face a range of challenges in the agricultural sector including problems related to natural disasters (floods, droughts, erosion), climate change, sustainable management of natural resources, high reliance on extraction sectors (such as hydro, timber and mining); the spread of plant pests and animal diseases, concerns about food safety, and inadequate food marketing and distribution systems. There are close linkages between the assurance of Food Systems Summit Action Tracks Two: Shifting to sustainable consumption patterns as well as Action Track 3 (Topic Four) Boosting nature positive production at scale;
- Inclusion. Action to ensure “no one is left behind” by ensuring representation for the most vulnerable groups in the food system and by ensuring that all members of society have equitable access to resources, services, information, food and livelihood opportunities;
- Gender. Women play an important role and are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce. Women face significant and persistent barriers to participating fully in food systems related institutions in terms of access to information and resources and leadership

¹¹ <http://www.fao.org/3/nb842en/nb842en.pdf>

positions. Women and men must have equal access to inputs, services, markets and opportunities throughout the value chains and equal control over the resulting income and benefits.

Possible trade-offs related to 'Advancing Equitable Livelihoods & Value Distribution'

The major trade-offs of focusing on the generation of decent work, the inclusion of all including vulnerable groups in participation along value chains and working immediately to reduce risks and mitigate future impacts on livelihoods in food systems is largely economic and financial. For example, the augmenting of productive agriculture techniques, agribusiness development, expertise, innovations and services to increase competitiveness of enterprises, sustainable rural infrastructure, and social safety protections will require public and private investments, particularly in the short term. This is also the case for investment in expertise, productive inputs, finance, and insurance that is accessible for vulnerable groups, and the responding and early prevention of shocks like COVID-19 and natural disasters.

However, the benefits and pay-outs of these investments range in the short, medium, and long term. Specifically, this could reduce income gaps for rural populations and vulnerable groups, increase the labour force, reduce the unemployment rate to below the target of below 5%, drive commercialisation of domestic and international markets, increase local and national economic productivity rates, reduce burdens on health and welfare systems, and especially, drive down costs of responding to impacts caused by climate change and natural disasters.

There are potential impacts and risks of social and environmental trade-offs; though these can be minimised. Through the generation of livelihoods there can be increased impact to the environment such as alterations of lands for agricultural and forestry purposes, the increase of unsustainable practices in processing or transporting, and improper disposal practices that generate harmful emissions. Additionally, there can be risks associated with empowering certain groups and contribute to grievances or issues with social cohesion, which some groups could face as increased market saturation deteriorates domestic or foreign market driving power of present stakeholders, or as certain groups feel left out of livelihood generation or improved incomes within food systems. These are only potential trade-offs, however, that can be mitigated through careful systematic approaches to social and environmental considerations under the principle of do no harm, especially with the themes of boosting nature positive production and increasing resilience to vulnerabilities and shocks.

Pathway for Lao PDR to 'Advancing Equitable Livelihoods & Value Distribution'

The pathway for Lao PDR to advance equitable livelihoods and value distribution will be to tackle the three different streams of challenges and opportunities systematically. This means that there will need to be a coordinated effort for the generation and improvement of opportunities for decent work, incomes and social safety support with the focus on ensuring universality of access to quality incomes, social support and wellbeing, and finally, with a forward-looking intention of mitigating risks and opportunity to increase resilience for all livelihoods.

In practice, this means the unification of efforts and investments by Government, development actors, academics, civil society, the private sector, and others, relying on feedback from stakeholders, and in particular vulnerable groups such as women, youth, and persons with disabilities. This requires a coordinated understanding and stocktaking among stakeholders to avoid duplication of efforts, geographically, thematically and financially – and that there is sharing of knowledge or building of synergies across these efforts. This will ensure that livelihood generation, resilience building and acceptable social welfare provisions are targeting the places that need it most, but in a fair, strategic and more accessible manner. Relevant considerations in this pathway will include how public and private investments can work together, what actors have a comparative advantage in an intervention, and how cross-cutting areas can supplement other actions. Finally, crucial to this will be stakeholder feedback and course correction when necessary. As this track is people focused, it requires an understanding of changes for people and is crucial towards Lao PDR's country development outcomes.

The pathway of advancing equitable livelihoods and value distribution can specifically lead to unique impacts towards the achievement of Lao PDR's targets towards the actualisation of the Sustainable Development Goals. Specifically, towards Lao PDR's pathway for progress for people-driven goals such as SDG 1 (no poverty), SDG 5

(gender equality), SDG 8 (decent work and economic growth), SDG 9 (industry, innovation and infrastructure), and SDG 10 (reduced inequalities), as well as for others cutting across all actions of the food systems like SDG 2 (zero hunger) and SDG 13 (climate action).

Statements of intentions and commitments from involved groups of actors

Lao PDR has huge potential to offer even more opportunities and address certain vulnerabilities for people working throughout the sustainable food systems chain to ensure “Advancing Equitable Livelihoods & Value Distribution”. These can be achieved through working together among strategic partners with a transformative agenda in cooperation with all stakeholders at national and sub-national levels including all levels of government, development partners, private enterprises, producers, farmers, civil society, and consumers. With these central roles in mind, below action areas can be mapped:

- **Form coherent and coordinated multi-sectoral approach at national and sub-national levels.**
- **Anchor food systems transformation in small-scale production.**
 - IFAD commits to this through the planning of its projects during IFAD12, including for potential grant resourcing from GAFSP through a proposal to be developed in collaboration with WFP, for a second phase for its Strategic Support for Food Security and Nutrition Project.
- **Support the development, capacity building, innovation/infrastructure and partnership building of agribusiness and micro and small enterprises.**
 - ADB will continue committing to the transformation of food systems in Lao PDR. They will also support efforts to improve the business environment, including for micro, small and medium sized agricultural enterprises.
- **Strengthen the private sector and create a business environment that is conducive to attracting private investment**
 - NCCI will help to address the knowledge and knowhow for business and support enterprises to grow their agri-business.
 - NCCI would like to build public private partnerships and establish of cooperatives for this, and focus on domestic productivity then merge into markets.
- **Address specific barriers to inclusive, equitable livelihood development**
 - IFAD through its ongoing and pipeline projects will review the access to extension services for smallholders and mapping of relevant PPP opportunities for smallholders.
- **Strengthen policies and practices to explicitly recognise and respond to close the gender gap by addressing the specific constraints faced by rural women**
 - IFAD, FAO, and the Ministry of Agriculture and Forestry commit to this as they continue to mainstream gender, by ensuring equity and/or empowering women in their interventions to address these gaps. They also commit to seeking feedback from women on behalf of themselves and households, and advocating to give them a seat at the table for decision making.
- **Address the legal, institutional and market constraints to the realisation of equity within food systems**
- **Inclusion of pro-poor nature-based solutions and climate change policies to improve the capacity of poor communities to manage climate risks on livelihoods.**



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Annex 4: Building Resilience to Vulnerabilities, Shocks & Stress

Leads: Ministry of Agriculture and Forestry (**MAF**), Ministry of Labour and Social Welfare (**MoLSW**), Food and Agriculture Organisation of the United Nations (**FAO**) and United Nations Environment Programme (**UNEP**)

Partnering agencies and departments: Ministry of Natural Resources and Environment (**MoNRE**), Ministry of Health (**MoH**), World Food Programme (**WFP**), International Fund for Agricultural Development (**IFAD**), United Nations Office for Disaster Risk Reduction (**UNDRR**), United Nations Development Programme (**UNDP**), United Nations Human Settlement Programme (**UN-Habitat**)

Major opportunities and challenges (facing Lao PDR) related to 'Building Resilience and Ensuring Sustainable Food Systems'

- Lao PDR suffers significantly from both chronic and acute food insecurity. Widespread food insecurity coupled with high levels of acute and chronic malnutrition impedes social, human, and economic development and contributes significantly to poverty.
- Over 95 percent of the farming systems are vulnerable to weather and climate-related hazards while large parts of the countries are still contaminated with unexploded ordnance. Among these, the three most common with the highest impacts on agriculture and food security are floods, droughts and storms, which often trigger secondary hazards such as landslides, forest and community fires, pest or rodent infestations and outbreaks of animal disease. These disasters are exacerbated by the degradation of natural resources, biodiversity loss and climate change.
- **'Climate change is a humanitarian issue and a development issue** – not just an environment issue. Next to conflict, climate change is one of the main drivers of global hunger. Increased temperatures are already having a devastating impact on agricultural production in Lao PDR. Food-insecure people are being hit by extreme weather such as drought and flooding, as well as by other stresses such as pest infestation and land degradation. Changes in climate are affecting the production of staple and nutritious crops. This situation is set to worsen as temperatures increase and become more extreme, and rainfall becomes more unpredictable.'
- Use of aflatoxins as well as pesticide and fertiliser are a challenge given they are often imported with no label, or labels in other languages and thus, there is a general lack of understanding of the safe use of these products.
- Fisheries, aquaculture and livestock are also impacted although less evidence exists compared to crops. The flooding in 2018 saw losses in fisheries associated with washed-away fingerlings and seedlings and lost income from the reduced sale of fish valued at some 38.3 billion Lao kip. A calculation based on an estimated increased mortality of some 2 percent of the flood-affected livestock population predicted an estimated 16 billion Lao kip in losses¹².

¹² <https://www.gfdr.org/en/publication/post-disaster-needs-assessment-2018-floods-lao-pdr>

- Social impact of shocks and stress to food systems include household food security, negative coping strategies that affect nutrition and access to services, and increased household debt. Reduced access to land and natural resources also affects community and ethnicity cohesion.
- The present COVID-19 pandemic has caused rising unemployment and falling remittances, as well as disrupted trade and supply chains resulting in localised food price increases and is estimated to push more than 200,000 people into poverty. The pandemic has pointed again to the importance of local production and in-country food systems. It is also vital that disruptions in local and international trade are minimised.
- Food production system is at subsistence level with low productivity and remains vulnerable to extreme weather events and degradation of land.
- Uplands and mountainous regions face threat from slash-and-burn, deforestation for major projects, logging and land and forest degradation caused by climate change.
- Given the high dependence of the country on natural resources for farming, timber, hydropower and mining Lao PDR is highly vulnerable to climate change.
- High levels of diversity in the food provisioning system for rural people, including integrated farming (rice, livestock, veg) the collection of NTFPs, various aquatic species, insects etc.
- High levels of informal economic activity including season labour, micro-enterprises, petty trade, informal lending etc.
- High levels of traditional social capital associated with the extended family and ethnic group, which provide a support network.
- Approximately 75% of farmers raising livestock only for self-sufficiency and at the small scale using a mix of old and new techniques.
- Surveillance, response, control and services provided in the context of veterinary are limited, partly due to a lack of human resources.

Opportunities:

- The Government of Lao PDR and the Ministry of Agriculture and Forestry (MAF) and the Ministry of Labour and Social Welfare (MoLSW) in particular have recognised the need for reducing the underlying risks to counterbalance hazard and disaster impacts. A proactive approach, integrating DRM and CCA with a strong focus on risk reduction measures, linked to poverty reduction, food and nutrition security and sustainable management of natural resources is a recognised priority for sustainable agricultural development and resilient food system.
- The MSD is an opportunity to establish the importance of resilient, shock responsive, equitable, inclusive, nutritious and well-functioning food-systems as critical to the ability of communities in Lao PDR to withstand and recover from the challenges of climate, pandemics, and economic crises, which are driving hunger.
- Water is available in abundance in Lao PDR, feeding agriculture and hydropower, and is a major natural asset attracting foreign investment.
- The country is increasingly focusing on investing in risk reduction measures including mainstreaming anticipatory action and climate information and service as well as insurance/loans products for farmers.
- Lao PDR is the co-chair of the ASEAN Disaster Management Committee working group on prevention and mitigation and an active member of the ASEAN Climate Resilient Agriculture network.
- Livestock production is very limited compared a high demand of market in the country and outside of the country. Investors are also becoming interested in the agriculture sector, putting more of their investment on food

business. In rural areas, most villages, if not all, have the potential to raise poultry as it is easy and is a great source of food to ensure sufficient nutrition/protein.

Practices and policies that have the greatest impact on the achievement of 'Building Resilience and Ensuring Sustainable Food Systems' (in Lao PDR)

- The Agriculture Development Strategy 2025 and Vision to 2030 is the core strategy of the Ministry of Agriculture and Forestry, adopted on 20 February 2015. This strategy aims to: ensure food security; produce competitive agricultural commodities; develop clean, safe and sustainable agriculture; and gradually shift to the modernisation of a resilient and productive agriculture economy, with rural development contributing to the national economic base.
- **The 9th NSEDP** also addresses food systems including food security, sustainable agriculture, food production and processing particularly under outcome 3 on wellbeing, food and income security and under outcome 4 on disaster risk management linked with ensuring sustainable food systems.
- **The National Green Growth Strategy for Lao PDR 2030** prioritises agriculture as a key means to ensure food security in Lao PDR and includes promoting and developing: food processing and beverage industry.
- **Lao PDR National Agrobiodiversity Programme and Action Plan II (2015-2025)** identifies action for six generic farming (eco) systems in Lao PDR, each with its own unique agrobiodiversity characteristics.
- **Plan of Action for Disaster Risk Reduction and Management in Agriculture 2014-2018** identified priorities and working mechanisms for enhanced risk reduction in agriculture, livestock, forestry and fisheries as identified and prioritised by the technical departments and partners during the consultation process.
- **National Plan of Action for Disaster Risk Reduction and Management 2021-2030** also identifies key priorities and approaches to working with stakeholders to help reduce risks targeting the most vulnerable populations, building their resilience and increasing their income.
- ASEAN formulated and implemented the **AIFS Framework**, and two Strategic Plans of Action on Food Security in 2009-2013 and 2015-2020, focused on a strategic set of measures based on strong commitments and ownership among all ASEAN Member States. The goal of the AIFS Framework is to ensure long-term food security and improve the livelihoods of farmers in ASEAN. Under the **ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Work Programme** inclusive and gender sensitive DRR and CCA are emphasised to achieve the vision for a resilient ASEAN community.
- Lao PDR's **Nationally Determined Contribution** focuses on eight priority areas that includes agriculture and food security; forestry and land-use change; water resources.
- **National Biodiversity Strategy and Action Plan 2016 – 2025**. Addresses biodiversity as it underpins food security. In terms of practices, there is need to scale up sustainable and climate smart agriculture.
- There is a need of strategies and regulations - on paper and in practice - that promote more holistic approaches to rural development, which discourage monocultures and blue-print projects, that avoid further resettlement and instead improves land tenure security, which raise the voice of rural people in decision-making, and which acknowledge the important role played by migrant workers in the family economy. And importantly, we need policies which measures progress in terms of job opportunities and income generation for rural people etc., not just production and export volumes.
- Multifunctional landscapes and livelihood diversification are essential elements of the adaptive capacity that allows rural communities to cope with external shocks. As the agriculture sector develops, as it must do to improve food security and incomes, these elements should be protected as a foundation for food systems resilience. The issue is not just how to build resilience, but how to preserve the resilience that already exists.

- Rural financing is not new to Laos, but it needs further reform in order expand access to vulnerable groups. Reform may include making it easy for farmers to get access coupled with support on development of business plan and financial management, as well as access to market/trade that is fair, secured and protected.
- Most farmers are at risk dealing with uncertainty. Agriculture products sometimes surplus or are in demand due to lack of products as a result of disaster events, pests, or disease outbreaks. To help minimizing risks, it needs a policy. The Lao Government may consider having insurance policy for farmers, at least those who are most vulnerable.
- In addition, the government may enhance policy enforcement/implementation to create better impacts on farmers or investors, allowing them to bring inputs, technology, and machineries with low tax, or tax exemption.

What synergies does 'Building Resilience and Ensuring Sustainable Food Systems create between different food system elements and pathways?

Resilience is a crucial complementary and integrated feature of sustainable food systems, given the multiple risks to the systems. Shocks, large-scale but also small and recurrent, can impact many elements of food systems, causing productivity loss, disruptions in markets, increased price volatility, degradation of natural resources and overall system instability which tend to affect the most vulnerable, food-insecure and under-nourished people in greater measure. Therefore, policies, technologies, practices and partnerships that increase the capacity of food systems to anticipate, prevent, reduce and effectively manage the multiple risks and build back better in recovery from shocks are necessary to foster more sustainable food systems. Steps to build resilience can be deployed at multiple levels and require integrated measures involving risk assessment, governance, ecosystem-based DRR and CCA, inclusive and gender sensitive approaches, nutrition-sensitive and shock-responsive social protection and others¹³.

Building resilience is required across food system elements (environment, people, inputs, processes, infrastructures and institutions) and activities (from production, processing, distribution to preparation and consumption of food and waste management) with due recognition of their interlinkages and how together they will achieve the socio-economic and environmental outcomes with poverty reduction, food security and improved nutrition at the centre. Making resilience building integral to food system also provides opportunities to build synergies of its elements i.e., between production, supply chain, access to food and consumption behaviour. Key synergies as the result of increasing resilience and reducing vulnerabilities in the food system include:

- **Inclusiveness.** Action to ensure no one is left behind by ensuring representation for the most vulnerable groups in the food system and by ensuring all members of society have equitable access to resources, information, food and livelihood opportunities.
- **Gender.** Women are an integral part of the agriculture sector in Lao People's Democratic Republic, comprising over 50 percent of the agricultural workforce. Women face significant and persistent barriers to participating fully in food systems related institutions in terms of access to information and resources and leadership positions.
- **Livelihood opportunities and better environment.** Climate-smart agriculture interventions may bring additional income to value chain actors and increase their household food and nutrition security; build resilience to market fluctuations; and safeguard ecosystems by protecting biodiversity, reducing soil erosion, and increasing soil carbon sequestration.

¹³ <http://www.fao.org/3/nb842en/nb842en.pdf>

Possible trade-offs related to Building Resilience and Ensuring Sustainable Food Systems

Building resilience in food systems requires consideration of synergies as well as potential trade-offs between the economic impacts (e.g., incomes, profits, taxes and food supply), social impacts (e.g., gender equality, nutrition, and animal welfare), and environmental impacts (e.g., the conservation of ecosystems, biodiversity, soil and water).

For example, some value chain development projects may deliver economic benefits, such as improved profits and job creation for some food system stakeholders, but have negative environmental impacts, such as changes in land use associated with the conversion of forest land to agriculture. Some interventions, if they rely on a monoculture cropping systems, may have a positive economic impact for some stakeholders, but erode genetic diversity and increase the system's vulnerability to climate change. Other interventions may have negative social impacts, such as decreased nutrition, if they promote calorie-rich but nutrient-poor, ultra-processed foods over fresh produce or perishable goods. Equally, food value chain interventions that only prioritise environmental elements, such as the reduction of carbon emissions through reduced fertiliser use or the introduction of a new technology, may lead to negative economic impacts in terms of reduced profits and potential job losses if not managed appropriately or effectively. Building resilient and sustainable food systems also requires consideration of synergies and trade-offs with other sectors such as urbanisation, transportation etc. Vulnerability and Risk Assessment, which a prerequisite in resilience building enables the identification of viable and effective risk reduction and adaptation options with due consideration of these synergies and trade-offs.

Pathway for Lao PDR to ensure 'Building Resilience and Ensuring Sustainable Food Systems'

- Need to scale up sustainable and climate smart agriculture including through measures outlined below.
- Prepare a **new National Plan of Action for Disaster Risk Management and Climate Change Adaptation in Agriculture**, building on the experience of the last plan which ran from 2014-2018.
- Undertake a comprehensive VRA of agriculture (encompassing crop, livestock, fisheries and forestry) and dependent livelihoods to guide planning of resilience building in food system elements and activities.
- Advocate for the **role of agriculture sector and resilient food system approach in national DRM and Climate Change agenda** of Lao PDR, emphasizing inter-sectoral integrated measures and a paradigm shift from disaster response to preventive, risk management approach.
- Advocate within ASEAN for a new **AIFS Framework and SPA-FS in line with ASEAN Vision 2025 and the SDGs**.
- Advocate for building resilient food system and cross-sectoral collaborative actions in the **ASEAN Agreement on Disaster Management and Emergency Work Programme and other relevant frameworks such as the ASEAN Declaration on Drought Adaptation**.
- Lao PDR may consider joining the Sustainable Rice Platform via the Ministry of Agriculture and Forestry and / or Ministry of Natural Resources and Environment (MoNRE) as a governmental member, joining a global network of over 100 institutional members across the stakeholder spectrum. The Sustainable Rice Platform is a global multi-stakeholder alliance to promote resource-use efficiency and climate change resilience in rice systems – both on-farm and throughout value chains. Goals are to a) Improve smallholder livelihoods in developing countries; b) Reduce the freshwater & carbon footprint of rice production; and c) Offer responsibly cultivated rice in the global market.
- Mainstream risk reduction methods including climate information and services, anticipatory action and innovative financing mechanisms such as insurance/loans.
- Strengthen local supply chains by incentivizing value chain investment through stable markets.

- Support to smallholder farmers: strengthen farmers' associations, linking farmers to markets, addressing inequities in access to resources and knowledge, linking to complementary interventions (social protection, nutrition and school feeding) and prioritising the most vulnerable.
- There is a need to improve the understanding of vulnerabilities and risks to food system and its use in policy making. This could be done by (a) enhancing risk-related information management, including conducting research to identify enabling and inhibiting factors affecting the food systems as a result of natural disasters or human-made activities/development projects, as well as factors affecting the most vulnerable groups; (b) integrating identified risks and mitigations in the policies and strategies that could be then transacted into programmes and projects; (c) building capacity of local communities on risks and vulnerability associated with their livelihoods and food systems so that they are better prepared in coping with risks events, shocks and stress.
- To help Lao farmers coping with risks, shocks and stress, it is necessary to enhance both the 'Weather Forest System' and 'Early Warning Systems' providing them with useful information.
- There is also a need to focus on R&D on seeds and breeds that are resilient to the climate in a certain context.
- Ensuring sustainable food systems requires involvement of several stakeholders/institutions. Thus, all sectors – public, private, CSO and communities – should come together and collaborate.
- Promotion of small and medium sized enterprises in the agriculture sector, and where possible establish a PPP model.
- In the Lao PDR, to make value chain more resilient we need not only policies that focus on the value chain but also side measures or policy that could support the change in food environments, like supporting local and organic food markets.

Statements of intentions and commitments from involved groups of actors

- UNEP, as a co-convenor of the Sustainable Rice Platform, commits to providing briefings to Government and other stakeholders on the Platform and facilitating Lao PDR's membership and engagement with the Platform.
- FAO as a lead agency for food system transformation and SDG2 will 1) promote the **shift toward sustainable and resilient food system** in Lao PDR in line with FAO priorities globally and in Asia and the Pacific region; 2) support the development of the **new National Plan of Action for Disaster Risk Management and Climate Change Adaptation in Agriculture**; 3) **build capacity for VRA, climate change impact assessment and foresight planning** for adaptive agriculture and 4) strengthen national capacities to design, **access climate and implement resilient food system initiatives**.
- WFP as a partner agency aims to provide assistance¹⁴ and technical support to target communities and government entities to build their resilience to climate and other shocks through strengthened capacities in disaster and climate risk management and social protection.
- The Lao academia can also play a critical role in the building capacity of human resources to promote sustainable food systems in the country. Their research, innovation and services could help shape policy development.
- CSOs and private companies can play a significant role to help building resilience and improving the food systems in the country through training, working and supporting farmers, providing them with technical advice and know-how, and engaging them in the local and regional markets through value chain.

¹⁴ From the draft WFP CSP 2022-2026

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