

STUDY REPORT ON CONTRIBUTORY CAPACITY OF SMALL-SCALE FARMERS TO NATIONAL SOCIAL SECURITY FUND

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LIST OF ACRONYMS

ADB	Asian Development Bank
AMS	Australian Marist Solidarity
CCFC	Coalition of Cambodian Farmer Community
CFRS	Cambodia Food Reserve System
COVID	Coronavirus Disease
CSO	Civil Society Organization
EJF	Environmental Justice Foundation
FAO	Food and Agricultural Organization
FIES	Food Insecurity Experience Score
GDP	Gross Domestic Product
HEF	Health Equity Fund
IDPoor	Identification of Poor Households
IFAD	International Fund for Agricultural Development
ILO	International Labor Organization
KI	Key Informant
KIIs	Key Informant Interviews
MAFF	Ministry of Agriculture, Forestry and Fisheries
MoEYS	Ministry of Education, Youth and Sport
MoH	Ministry of Health
MoSVY	Ministry of Social Affairs, Veterans and Youth Rehabilitation
MoP	Ministry of Planning
NCDM	National Committee for Disaster Management
NGO	Non-Government Organization
NIS	National Institute of Statistics
NSPC	National Social Protection Council
SPPF	Social Protection Policy Framework
NSSF	National Social Security Fund
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
RGC	Royal Government of Cambodia
SHG	Self-Help Groups
UN	United Nations
UNICEF	United Nations Children's Fund
WFP	World Food Programme

EXECUTIVE SUMMARY



This report provides an overview of the key findings on the contributory capacity of small-scale farmers to the National Social Security Fund (NSSF). OXFAM in Cambodia and the Coalition of Cambodian Farmer Community (CCFC) commissioned this study to assess the social protection needs and contributory capacity of small-scale farmers in Cambodia. With this purpose in mind, the study seeks to answer vital issues such as the risks and vulnerabilities faced by small-scale farmers, the needs and social protection priorities of small-scale farmers in Cambodia, and the currently available NSSF schemes that suit the needs and priorities of small-scale farmers. Further, the study explores the ability of small-scale farmers to contribute to healthcare and pension schemes under the NSSF regularly and the amount small-scale farmers would be willing to contribute to the NSSF schemes. In addition, the study identifies key challenges that might hinder small-scale farmers from making contributions, including how debt and household expenditure might impair their capacity to contribute to the schemes and external barriers that might impede the expansion of the NSSF coverage for small-scale farmers. The study is intended to support the development of policy options and specific action plans for expanding social security to small-scale farmers in Cambodia.

This study was conducted in five provinces: Kampong Cham, Kampong Chhnang, Kampong Speu, Kampot, and Prey Veng (45 communes) from December 2022 to March 2023. The survey targeted female and male small-scale farmers (**female: 267**; **male: 117**) and **15 key** informants (KIs) to acquire primary data. The survey focused on the following areas:

- Risks and vulnerabilities being faced by small-scale farmers
- Understanding of small-scale farmers about NSSF and accessibility to social protection schemes
- Needs and social protection priorities of small-scale farmers
- Contribution of small-scale farmers to the social security schemes

SUMMARY OF KEYFINDINGS

- The self-assessed risks and vulnerabilities of small-scale farmers show that pest and disease outbreaks,high volatility in market prices of agricultural products, low yields/crop failures, falling crop prices,and highlivestock mortality have moderateto significant levels ofpotentialimpact on their farm income and well-being.
- The surveyed small-scale farmers had significantly limited knowledge about membership registration to the NSSF, available social security schemes, contribution amount for each schemeby members, process of contributing to the NSSF, and procedure to claim benefits (mean score:1.6). Above 94.0 percent of the respondents felt that acquiring information about the NSSF and current schemes is essential for them (modal value = 5), and 80.7 percent of the respondents preferred local level meetings by the village authorities to gain information about the NSSF.
- 79.3 percent of the respondents agreed on the presence of risks at work and felt that the exposure to wastage and chemicals was the most significant.
  With several potential risks and vulnerabilities, mostsmall-scale farmers (60.2 percent; female: 62.5 percent) have viewed the healthcare scheme as their preferred one, followed by the pension scheme.
- To respond to the loss of farm income due to several adverse conditions, 46.4 percent of the sample small-scale farmers have mentioned using their savings. In comparison, 41.2 percent of them consider borrowing from others. Against 33.3 percent of male small-scale farmers, 44.6 percent of female small-scale farmers preferred to borrow money from others in the future to meet their long-term sickness/injury or disability, including natural disasters.
- Although making a plan to secure the old age livelihood is a concern for small-scale farmers, most of them would like to choose more than one source, such as savings,borrowings, and others. While 61.5 percent of small-scale farmers (male: 63.3 percent; female: 60.7 percent) have thought of using their savings, 37.8 percent considered taking support from their family/ children.
- To meet the maternity, hospitalization, and post-delivery expenses, 53.6 percent of the female small-scale farmers have considered using their savings, while 41.6 percent thought of using the income of their spouse/family.
- To manage household expenses above income, 48.7 percent of the surveyed respondents took up additional work, whereas 37.4 percent of them ate fewer times a day and/or ate smaller meals, followed by 31.6 percent of them borrowed money.

- Based on the current income and expense, 84.9 percent of the surveyed small-scale farmers (female: 84.6 percent) preferred to contribute up to USD 2 per month. Further, concerning the timing of the contribution to the NSSF, more than three-quarters of the surveyed small-scale farmers (84.4 percent; male: 84.6 percent; female: 84.3 percent) preferred to contribute monthly.

- The top three barriers to participating in the NSSF as perceived by the surveyed small-scale farmers include lack of access to accurate information about the NSSF (70.8 percent; female: 76.4 percent), lack of understanding of the administrative process regarding membership registration (60.2 percent; female: 64.4 percent), and lack of knowledge about the benefits of schemes (47.4 percent; female: 46.8 percent).

- The key challenges as perceived by small-scale farmers that might hinder regular contributions to the NSSF include low income (40.1 percent), unstable income (31.3 percent), and rising household expenses (18.8 percent).

- In light of the challenges, 68.5 percent of the respondents have recommended that the government enact laws exempting small-scale farmers from contributing membership fees. Additionally, 64.1 percent of respondents have expressed the need for legislation that allows small-scale farmers to access and contribute to the NSSF. Other suggestions include amending the law to include their family members to avail of healthcare benefits (36.5 percent) and sharing a part of the contribution amount by the government (20.6 percent).

KEY RECOMMENDATIONS

On the basis of the key findings, and in the light of the recent government plans to extend voluntary social insurance to informal workers, this comprehensive contributory study considers the following recommendations as crucial for an inclusive extension of coverage to small scale farmers:

FOR THE ROYAL GOVERNMENT OF CAMBODIA (RGC)

- **Amendments to the law on Social Security Schemes 2019 to include small-scale farmers to access the NSSF:** To effectively cover small-scale farmers into the current social protection system and facilitate their access to the NSSF, the government needs to enact provisions and amendments in the existing law on Social Security Schemes 2019. Although the scope of the law covers the self-employed, it does not specifically mention the case of small-scale farmers. To include small-scale farmers under the purview of the law, their economic activities, including income levels, should be considered. In addition, necessary provisions that enable family members of small-scale farmers to benefit from healthcare benefits should be made.
- **Adopt appropriate funding mechanisms/ and contributory payments to tackle affordability challenges:** Considering small-scale farmers' unstable and low-income levels, at the entry level, the government should consider subsidizing a part of their contribution and enable gradual scale-up of contributions. Further, from a humanitarian point of view, during adverse shocks and extreme weather events, to overcome the vulnerabilities, the government should consider fully subsidizing the contributions to the NSSF to enable small-scale farmers to maintain their livelihoods.
- **Adopt flexible contributory payments:** To respond to the adverse challenges that small-scale farmers face in agricultural operations and encourage adherence to the NSSF, the government should consider adopting adjustable levels and timing of contributions to the NSSF.
- **Adequacy of the benefits:** To ensure attractiveness and adherence, the government must consider adopting life cycle benefits and incentives for small-scale farmers, starting with health and maternity benefits and occupational risks and gradually introducing new benefits and services. In addition, public transportation facilities should be made available to ensure that needy small-scale farmers living in remote areas avail timely healthcare services. Without public transport provision, the government should reimburse the transportation costs the service seekers bear to visit hospitals/healthcare centres.

- **Incorporate specific gender-responsive dimensions into the NSSF extension mechanisms:** Considering the additional risks that female small-scale farmers bear during reproductive age, including maternity, post-delivery, childcare, and reproductive health, the NSSF laws and extension provisions for farmers must strive to be gender-responsive. The government should consider different approaches, such as subsidizing the contribution, providing maternity protection benefits, adopting flexible payment modalities, and ensuring flexible administrative requirements by collecting gender-disaggregated data.

- **Harness digital and mobile technology to facilitate access to social protection:** Using mobile technology will significantly enhance social security delivery to support small-scale farmers. The government should consider using digital means to promote the CSOs to extend social security coverage in terms of membership registration, contribution payment, benefits claims, and others for the efficient and effective delivery of services.

- **Ensure easier and more accessible registration:** Considering the widespread presence of small-scale farmers in the country, their registration process to the NSSF should be made at the commune level. This provision would make their registration more accessible and hassle-free. In addition, adequate provision should be made at the commune level so that small-scale farmers can get updated information, including lodge complaints and/or provide feedback.

- **Conduct a nationwide larger-scale study:** TheNSSF should consider conducting a national survey of the contributory capacity of small-scale farmers, considering the level of risks and vulnerabilities they face in different regions.

- **Monitor and evaluate the performance of service providers:** Ensuring quality service requires monitoring and periodic evaluation of the NSSF partners' performance, such as the service providers, like hospitals, healthcare centres, and others. This would also build trust among small-scale farmers of the service deliveries.

FOR RGC, CSOS AND NGOS

- **Disseminate information to build stronger awareness, understanding, and knowledge among small-scale farmers about several provisions of the NSSF:** Information on social security provisions, regulations, schemes, benefits, eligibility conditions, membership contribution, administrative procedures, as well as members' rights and obligations should be widely disseminated among small-scale farmers even though they are currently not able to access the NSSF. This should be done through local-level meetings with the village authorities. In addition, the other ways to disseminate the information effectively among small-scale farmers are through village-level organizations, such as agricultural cooperatives/associations, including self-help groups (SHGs).

- **Capitalize the services of agricultural cooperatives and self-help groups:** Several physical and economic risks and vulnerabilities faced by small-scale farmers can be addressed jointly by utilizing agricultural cooperatives/associations and self-help groups at the village level. In addition, these village-level organizations can help build awareness among the farmers about the need and membership benefits of social protection, including shock-responsive social protection. As an intermediary between the farmers and the government, they can support the farmers' collective registration to the NSSF by facilitating enrolment.



01 INTRODUCTION

1.1. BACKGROUND

Agriculture is the backbone of the Cambodian economy, contributing 22.8 percent to the nation's Gross Domestic Product (GDP) in 2021 and providing 38.9 percent of total employment (World Bank, 2023). Considering the importance of agriculture to the national economy in terms of poverty reduction and export earnings, the government's primary strategy in agriculture is to focus primarily on productivity enhancement and competition (RGC, 2022). Although agriculture, particularly rice production, is vital to Cambodian food security and society, the sector faces several challenges. Farmers in Cambodia are exposed to several risks and vulnerabilities, including climate changes and environmental exposures, physical vulnerability, social vulnerability, and economic vulnerability. These risks and vulnerabilities, to a large extent, adversely affect their

farm income and well-being. The Asian Development Bank (ADB) predicts that due to adverse weather events and surging temperatures, by 2050, Cambodia will lose at least 10 percent of its GDP. Even though efforts were made to enhance the country's climate resilience, the ADB ranked Cambodia 149th out of 182 countries in 2022 (Sarath & Sreydeth, 2023). In this context, supporting small-scale farmers with improved access to social protection benefits is paramount to expanding NSSF coverage to enhance their income security and economic viability.

Social security is a human right and an economic and social necessity (Nguyen & da Cunha, 2019). The exclusion from social protection violates the right to social security enshrined in the Universal Declaration of Human Rights (articles 22 and 23). Social protection systems encompass a range of programs, including social assistance, social insurance, and public employment programs. While social assistance-related programs are non-contributory and mostly tax-financed, social insurance programs are contributory. Contributory social protection schemes, most commonly social insurance, are essential elements of the social security system because these schemes are based on the payment of contributions by the protected persons or their employers. Social insurance has a vital role in financing the social security system and can reduce the fiscal burden on the government budget by offering reliable and stable financing mechanisms (ILO, 2021). For non-contributory schemes, there are no required contributions from protected persons as they are primarily financed directly by the government budget, such as general taxation, other state revenues, or, in some cases, external grants or loans. Non-contributory schemes play a crucial role in ensuring a basic level of protection within the social protection system for poor and vulnerable groups without access to other mechanisms (ILO, 2021).

The RGC regards social protection as a critical tool in reducing poverty and vulnerability, improving living standards, and providing a better future for the country. To achieve these goals, the RGC adopted the Law on Social Security Schemes for Persons Defined by the Provision of the Labor Law in 2002 to organize the private sector's social security schemes, pension, and occupational risks. Further, the Royal Government adopted the Law on Social Security Schemes (2019) to establish social security schemes to ensure equity and social solidarity and promote the welfare and livelihood of all citizens. This law covers persons under the public sector, persons Defined by the Provisions of the Labor Law, including personnel serving in air and maritime transportation as well as domestic workers, and self-employed. The approval of the National Social Protection Policy Framework 2016-2025 (NSPPF) was a milestone that signified the importance placed on social protection by the RGC.

Denying social protection to any segment of people may bring considerable challenges to individuals, families, and nations toward economic and social development. In this context, contributing toward the national dialogue on expanding the NSSF coverage for small-scale farmers in Cambodia, it is imperative to acquire knowledge through evidence-based research on the target group's social protection needs and contributory capacity. Thus, in light of the above rationale, the current research study was undertaken under the guidance of the OXFAM in Cambodia and CCFC to contribute to the national dialogue on expanding NSSF coverage for small-scale farmers in Cambodia.



1.2. OBJECTIVES OF THE STUDY

The study's overall objective is to assess the social protection needs and contributory capacity of the small-scale farmers in Cambodia. Specifically, the study intends to:

- Identify the risks being faced by small-scale farmers.
- Explore the needs and social protection priorities of small-scale farmers in Cambodia based on the types of risks they are subjected to.
- Review the national government's policies, including international policy frameworks that support small-scale farmers to access social protection.
- Assess the existing NSSF schemes that suit the needs and priorities of small-scale farmers.
- Assess the ability of small-scale farmers to contribute to health care and pension schemes under NSSF regularly.
- Find out the monetary amount small-scale farmers would be willing to contribute to the NSSF schemes.
- Explore the key challenges that might hinder small-scale farmers' capacity to contribute to the NSSF.
- Identify other external barriers that might impede the expansion of the NSSF coverage for small-scale farmers.
- Explore the policy options in light of expanding the social insurance to small-scale farmers and suggest alternative options if small-scale farmers cannot make voluntary contributions.



1.3. STUDY QUESTIONS

The contributory capacity study of the small-scale farmers to the NSSF seeks to answer the following main research questions:

- What risks are small-scale farmers facing (including climate risk and with a specific focus on women)?
- What are small-scale farmers' needs and social protection priorities based on the types of risks they are subjected to?
- What policies of national government or international policy frameworks support small-scale farmers to access social protection?
- What are the available NSSF schemes that suit the needs and priorities of small-scale farmers?
- Would small-scale farmers be able to contribute to the NSSF regularly?

- How much would the small-scale farmers be willing to contribute based on their incomes and household expenditure for which NSSF schemes?
- What key challenges might hinder small-scale farmers' capacity to contribute, including how debt and household expenditure might hinder their capacity to contribute to the schemes?
- What other external barriers might impede the expansion of the NSSF coverage for small-scale farmers?
- What policy options could be proposed based on the results for the expansions of social insurance to small-scale farmers?
- What other alternatives and options could be recommended if small-scale farmers cannot make voluntary contributions?



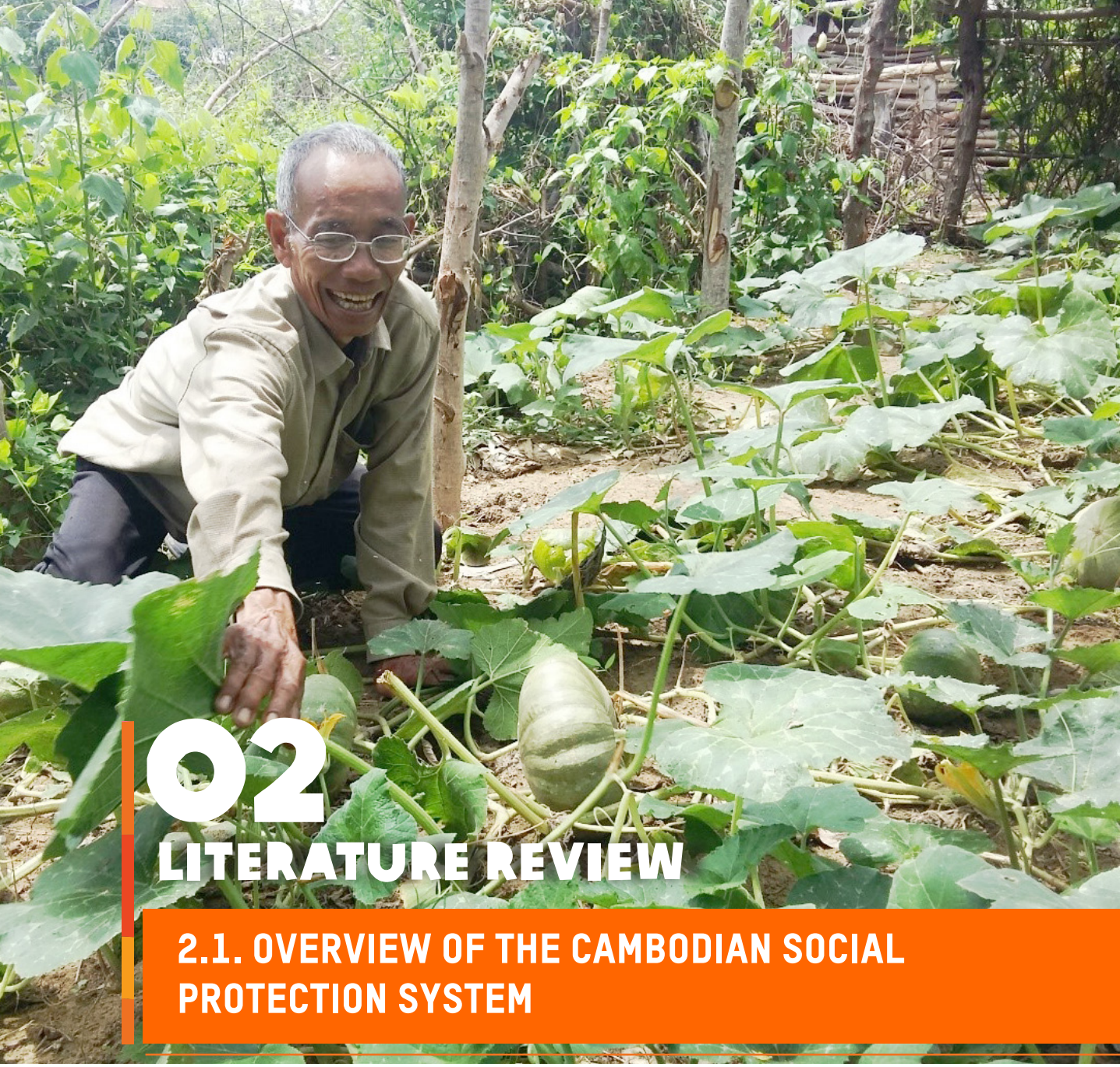
1.4. SCOPE OF THE STUDY

Within the given timeframe and budget, the scope of the contributory study involved conducting a desk review and field survey to collect primary data from 384 small-scale farmers covering all regions of the country. The small-scale farmers were selected from five provinces: Kampong Cham, Kampong Chhnang, Kampong Speu, Kampot, and Prey Veng. In addition, primary data from 15 key informants from both the sub-national and national levels was collected through in-depth interviews. Thus, this evidence-based research report has been prepared based on reviewing the relevant policies, legislations, guidelines, and social security-related documents, including primary data collected from sample respondents and key informants through interviews.



1.5. ORGANIZATION OF THE REPORT

This contributory capacity study report consists of five sections and is organized as follows: Section 2 presents an extensive review of literature both from conceptual and empirical angles; Section 3 describes the methodology used in the study; Section 4 presents the findings of the study broken out into five subsections: i) socio-demographic profile of survey respondents; ii) risks and vulnerabilities being faced by small-scale farmers; iii) understanding of small-scale farmers about the NSSF and accessibility to social protection schemes; iv) needs for social protection priorities of small-scale farmers; and v) contribution of small-scale farmers to the social security schemes; and finally, section 5 discusses the main findings of the study, and presents its conclusions and recommendations. The report is appended with a research instrument used in the study for primary data collection.



02 LITERATURE REVIEW

2.1. OVERVIEW OF THE CAMBODIAN SOCIAL PROTECTION SYSTEM

The Royal Government of Cambodia (RGC) regards social protection as a critical tool in reducing poverty and vulnerability, improving living standards, and providing a better future for the country. The right to social protection is embedded in Cambodia's Constitution. It is a part of Sustainable Development Goal 1.3: The proportion of the population covered by social protection floors/ systems, including the poor and the vulnerable (FAO, 2019).

To achieve these goals, the RGC officially adopted the Law on Social Security Schemes for Persons Defined by the Provision of the Labor Law in 2002 to organize the private sector's social

security schemes, pension, and occupational risks. However, as the scope of the Law was incomprehensive and inconsistent, the RGC established a new Law on Social Security Schemes in 2019, which covers persons under the public sector, persons defined by the provisions of the Labor Law, including personnel serving in the air and maritime transportation as well as domestic workers, and self-employed (NSSF, 2022). However, the Law on Social Security Schemes (2019) did not specifically mention the coverage of farmers. This Law has incorporated four schemes: Occupational Risk, Healthcare, Pension, and Unemployment.

Under the Social Security Law, the National Social Security Fund (NSSF) was established in 2007 as an independent and autonomous public institution to administer the schemes of Social Security protection following the law. Since its inception, NSSF has managed national social insurance schemes covering work injury (since 2008), health insurance including sickness and maternity (since 2016), and pension for private sector employees (of enterprises with one or more employees), including domestic workers (since October 2022). NSSF's health insurance (from 2019) and work injury (from 2021) also cover public sector employees.

According to the NSSF's annual report, NSSF has registered a total of 21,430 formal and informal institutions/enterprises/establishments consisting of 3,120,208 members (1,798,510 females), received contribution income of around 740,480.76 million Riels (185 million US dollars), spent around 345,900.98 million Riels (86 million US dollars) on benefits provision of Occupational Risk Scheme to 9,083 victims (4,539 females), and had a total of 3,000,040 times/persons (2,195,365 times/females) who accessed health care services as of 2022 (NSSF, 2022).

In July 2017, the RGC endorsed the National Social Protection Policy Framework 2016-2025 (SPPF), which aims to harmonize, integrate, and strengthen existing schemes to increase the effectiveness, transparency, and consistency of the entire social protection system (RGC, 2016). The SPPF is the first policy document of its kind in Cambodia to cover social assistance, social insurance, and social health protection, thus providing the basis for the systematization of various schemes and initiatives (OECD, 2017).

The framework has two pillars: social assistance and social insurance. The SPPF defines social assistance as interventions for the poor and most vulnerable groups through the government budget or Official Development Assistance (ODA). In contrast, social insurance (social security) protects people from illnesses, maternity, employment injury, unemployment, invalidity, old age, and death of the breadwinner.

Social assistance programs mainly focus on emergency response, education, and health. The RGC has implemented social assistance programs for over a decade to ensure the achievement of Cambodia's key development priorities, inclusive growth, poverty reduction, and economic diversification (RGC, 2017).

TABLE 2.1: Programs under Social Assistance and Social Insurance

Social Assistance	Social Insurance
• Human development	• Pension
• Emergency response	• Health insurance
• Social welfare for the elderly and disabled	• Employment injuries
• Social health protection	• Maternity and child benefits*
• Technical and Vocational Education and Training	

Source: Bunthoeun et al., 2019

NOTE: Recently, the government introduced maternity and child benefits (USD380 per pregnant women and mothers) for private sector employees who are members of NSSF.

Cambodia has a two-tier system of social insurance: one for private-sector employees and the other for public-sector employees. Social insurance is administered through the NSSF and Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY). While the NSSF manages social insurance for private-sector employees, the MoSVY oversees social insurance for civil servants, police, soldiers, and veterans. Social insurance programs implemented by the RGC are pensions, health insurance, and employment injury

TABLE 2.2: Current National Social Protection Schemes Implemented by Different Key Actors

Social Protection Schemes	Implementing Actors
• Health Equity Fund ▸ Health Equity Fund for Informal Workers	Ministry of Health (MoH) NSSF • NSSF
• National Social Security Fund ▸ Employment Injury Scheme ▸ Health Insurance Scheme ▸ Pension scheme (compulsory and voluntary)	• NSSF
• National cash transfer program for COVID-19 response and post lock-down social assistance/cash-transfer scheme (family package)	MoSVY/NSPC
• Pregnant Women and Young Children Cash Transfer (for children under 2 years old)	• MoH, MoSVY/overseen by NSPC

• Cambodia Food Reserve System (CFRS)	• Ministry of Agriculture, Forestry and Fisheries (MAFF), MEF and National Committee for Disaster Management (NCDM)
• School Scholarships	• World Food Programme (WFP) and Ministry of Education, Youth and Sport (MoEYS)
• School feeding program for rural schools	• MoEYS and save the Childre and WFP
• Cash allowance for pregnant women holding NSSF during baby delivery	• NSSF
• Cash-for-work program designed for developing the rural infrastructures and supporting the farmers	• Ministry of Water Resources and Meteorology
• Cash allowance for people with disability (based on different level of disability)	• MoSVY
• Cash transfer for At-Risk households who are impacted by flood	• MoSVY
• Cash transfer for At-Risk households who are impacted from inflationary pressure	• MoSVY

Source: Gally, 2021.



The COVID-19 pandemic has caused dramatic socio-economic impacts on the people; however, it has also presented an opportunity for the RGC to expand its social protection system at unprecedented speed and scale to protect people and save lives. The RGC rapidly deployed emergency social protection measures through cash transfers to mitigate the devastating socio-economic fallout and protect the poor and vulnerable. The existing IDPoor system was rapidly transformed to implement the cash transfer programme for poor and vulnerable households. The IDPoor system was also modified to add an "On-Demand IDPoor" function to register new poor households who had become poor due to the negative impacts of COVID-19 (UN, 2021.

As a result, from May 2020 to March 2021, the IDPoor system registered an additional 195,321 new poor households. By March 2021, some 692,092 poor households comprising nearly 2.8 million people had received cash assistance from the programme. Without the cash transfer programme, which comprises a significant package of benefits following household structures and categorical vulnerabilities, the nearly 2.8 million people would have fallen deeper into poverty and other deprivations. At the same time, the pandemic shock still ravaged the economy. Beyond protecting people from

spiraling into poverty, the cash transfer programme also averted an abruptly sharper economic contraction (UN, 2021).

The UN's economic simulation showed that the social protection programmes helped save economic growth by nearly one percentage point. The study on the socioeconomic impacts of the COVID-19 cash transfer programme reveals a reduction of the unemployment rate by 0.57 percent in 2020 and 0.62 percent in 2021, including a reduction of the poverty rate by 2.7 and 3.4 percent in 2020 and 2021, respectively. Based on the Food Insecurity Experience Score (FIES), the cash transfer programme protects poor and vulnerable households from further food insecurity, ensuring they have enough rice and other food (UNDP, 2022). Thus, the swift implementation of the cash transfer programme opened a space for accelerating the development of a shock-responsive social protection framework, which is now being prepared. Therefore, the cash transfer programme has shaped the scaling up of the social protection system to cover other vulnerable groups, including workers in informal sectors, and to pave the way for universal coverage (UN, 2021).

Currently, the RGC is drafting a new version of SPPF, which covers life cycle risks, based on the review of the SPPF (2016-2025). The RGC's main aim is to extend adequate coverage of social protection to the uncovered workers in both formal and informal economies and vulnerable and poor families through both social security (contributory) and social assistance (non-contributory) (ILO, 2022).



2.2. GAPS IN THE SOCIAL PROTECTION COVERAGE FOR SMALL-SCALE FARMERS

Agriculture, one of the country's leading sectors, remains essential to secure the livelihoods of the Cambodian population. The Cambodia Inter-Censal Agriculture Survey 2019 (CIAS19) reveals that an estimated 32 percent of holders who participated in the survey reported that half of their total household income (40 to 59 percent) was accounted for by agricultural income, while 17 percent reported that most or almost all (60 to 99 percent) of their total household income was accounted by agricultural income, and 4 percent reported that all (100 percent) of their total household income was accounted for by agricultural income. In addition, the UN press release (7 February 2023) reported that three-fourths of Cambodia's 6.8 million farmers are categorized as small-scale farmers. Cambodia's small-scale farmers face multiple challenges, including the effects of climate change, health

hazards, income instability, and serious occupational safety. Despite their high percentage and vulnerability, small-scale farmers are not sufficiently and effectively covered by the Cambodian current social protection systems. Therefore, it is essential to include small-scale farmers in the social protection system as they play productive roles in society, offering food to millions of Cambodians.



2.3. RISKS AND VULNERABILITIES FACED BY SMALL-SCALE FARMERS

To effectively protect small-scale farmers, it is imperative to assess the risks and vulnerabilities that small-scale farmers face to identify appropriate social protection schemes.



Unstable livelihoods caused by climate change and environmental-related risks

One of the most significant risks that small-scale farmers face is the effect of climate change. Cambodia's agriculture sector is highly vulnerable to climate change as the country ranks 12th most vulnerable country to climate change globally based on the Global Climate Risk Index 2020 (Eckstein et al., 2019). According to a recent ADB report, Cambodia ranks 149th among 182 countries in the 2022 Notre Dame-Global Adaptation Index, indicating a need for significant improvement in climate resilience (Cambodia Investment Review, April 19, 2023).

Any disastrous climate effect (flooding, drought) or non-disastrous climate effect (changing rainfall pattern, drought) can bring about loss of income and food shortage from crop failure among Cambodian small-scale farmers. In an earlier study in 2011, of 390 households surveyed in three provinces soon after the floods that affected 18 of 24 provinces, 48 percent had to take a loan as a direct consequence. Some 60 percent of respondents subsequently had trouble in repaying their loans, with annual interest rates estimated to be as high as 65 percent (The Access to Finance Consortium, 2012). A recent study conducted in 2022 on over-indebtedness in Cambodia shows very high average loan sizes of 5,183 USD among indebted households, many of whom are very poor. Almost half of the indebted households faced repayment difficulties, and 13 percent sold their lands to repay loans. The study reveals that more than 167,000 Cambodian households have had to sell land to repay loans over the past five years (LICADHO, 2022).



Health risks and work injuries

Concerning fatalities, injuries, and work-related ill-health, agriculture is one of the three most hazardous sectors of activity, along with construction and mining (ILO, 2023). This is undoubtedly true for Cambodian small-scale farmers, who are also at significant risk of work injuries and health issues. Study shows that Cambodian farmers prefer and increasingly rely on pesticides and consider pesticides as their partner to provide higher value in pest protection and increase yields. A 2021 study by Sim et al. (2021) reveals that farmers prefer chemical pesticides over biopesticides, with the vast majority spraying only chemical pesticides. In addition, most farmers prefer mixing many pesticides in one application rather than using just one at a time as recommended. The main concerns with pesticides are the effects on human health and the environment, the lack of awareness among the public about pesticide hazards, and the unsafe use of pesticides that can have grave impacts on farmers, their family members, and consumers.

As many Cambodian farmers need to familiarize themselves with the pre-harvest period, they apply pesticides up to the day of harvest, resulting in high residues in food products and potentially causing consumer poisoning. A growing concern is the contamination of drinking water by using the same containers to mix pesticides and transport drinking water or by direct pollution of water systems. Farmers commonly mix pesticides with bare hands, walk barefoot in fields, or spray without protective masks. They might sometimes use pieces of cloth, but they usually have minimal protective effect. These can result in farmers' pesticide poisoning, which can cause severe sickness (EJF, 2002).



Age-related risks

Much of the agricultural work is, by its nature, physically demanding. Many Cambodian elderly continue to perform farming activities even if the activities are beyond their ability to carry them out safely. For some of them, after years of performing such intense physical labor, being exposed to health and occupational risks, a high incidence of disability in old age and other health problems arise. Although the Cambodian population is relatively young now, with 57 percent of the total population under 30 years old, the changes in demographics, especially the rising proportion of the older population, are inevitable (NIS, 2019). From 2020 to 2030, the older population will be increasing annually at around 4 percent, while the annual growth rate of the working-age population will be just one percent, and the population under 15 will be undergoing negative growth. Ageing-related

issues for farmers, which were non-existent or hardly significant then, have become challenging issues to grapple with (NIS, 2019).

Income insecurity and instability

Citing an earlier report of the World Bank (2015), the Australian Marist Solidarity (AMS, 2017) pointed out that the number of vulnerable people has increased in Cambodia amidst declining poverty. Although most of them have escaped poverty, they remain poor, and a loss of only USD 0.7 per day would bring poor families back into poverty (AMS, 2017). Cambodia's average economic growth of 7 percent over the last two decades (1998 - 2019) plunged the national poverty rate from 33.8 percent to 17.8 percent between 2009 and 2019-2020 (Karamba, 2023). Most small-scale farmers reside in rural areas, and people experiencing poverty in rural areas decreased by 2.1 million from 4.3 million in 2009 to 2.2 million in 2019/20 (Karamba et al., 2022). The rural poverty rate decreased significantly because rural poverty fell faster than rural population; while the number of rural poor fell annually by about 6 percent between 2009 and 2019/20, the rural population fell annually by about 2 percent (Karamba et al., 2022). As seen, the COVID-19 pandemic dealt a setback to Cambodia's poverty reduction progress, raising the poverty rate by 2.8 percentage points and pushing around 460,000 individuals into poverty (Karamba, 2023). In addition, the inability of farmers to respond to economic and/or weather shocks severely impacted their families, including livelihoods. Farmers also faced another challenge, income fluctuations, due to factors like volatile market prices, crop failures, and external shocks like natural disasters. Furthermore, lack of access to credit and financial services, including crop insurance, limits farmer's ability to invest in inputs, equipment, and technology to increase crop yield. All of these setbacks result in income insecurity and instability among farmers.

2.4. DESIGN OF SOCIAL INSURANCE SCHEMES TO COVER SMALL-SCALE FARMERS

It is vital to discuss policy choices and program designs that the government needs to make as to whether to implement an integrated or parallel social insurance scheme or whether the extension of coverage should be a contributory or non-contributory scheme if a contributory scheme – should it be mandatory or volunteering. It is to keep in mind that there is no "one-size-fits-all" solution for the extension of coverage. In many cases, a combination of approaches and measures is more effective in extending social protection effectively and equitably (Nguyen, 2019).

Integrated or parallel schemes

Global practices show two design options to introduce social insurance schemes to small-scale farmers: integrated or parallel. Integrated social insurance schemes are those in which different categories of workers and/or employment arrangements share the same fund and scheme, the same fund but different schemes, the same package of benefits but different schemes, and others. Integrating different works and income categories under a single social insurance scheme can positively impact the solidarity aspect of the contributory schemes and contribute to the financial sustainability and cross-subsidization of social insurance schemes (Winkler et al., 2017).

In contrast, the fragmentation of social insurance systems occurs when different population groups are covered by different contributory (parallel) schemes rather than one integrated national scheme. In addition to the traditional fragmentation between social insurance schemes for public and private workers and members of the military, some countries also establish further fragmentation by work sector (agriculture and construction) and employment arrangement (regular wage workers, domestic workers, self-employed, casual workers) (Jawad, 2015). When social insurance schemes are established, they generally do not cover all categories of workers. For example, agricultural and self-employed workers are usually covered under different schemes or not covered at all (Chen & Turner, 2014).

However, one of the main problems of fragmented schemes is the lack of portability and transferability of entitlement and rights between different careers. This is a considerable challenge for workers in the agriculture sector, considering high labor market mobility and movements between self-employment and dependent employment (Sato & Mohamed, 2022). Fragmentation also limits cross-subsidization and risk-pooling by segmenting the population. The health insurance schemes in Iran provide an example of these limitations. As a result of the incremental expansion of health insurance for different population groups over time, the country has created four public health insurance organizations that cover different populations, including one for rural populations. The fragmentation into these four categories prevents transfers or cross-subsidization between the schemes and population risk-pooling segments, thus limiting risk redistribution (Bazyar et al., 2016).

International practices show that integrating farmers into mainstream social insurance schemes is the best way to go but with different benefit packages adapted to their specific needs and contributory capacity. This solution would prevent governments from taking the long road to setting up heavily

subsidized and separate schemes for inefficient farmers, as they are not financially sustainable and are characterized by limited levels of solidarity.



Contributory or tax-financed schemes

International experiences reveal that combining contributory and non-contributory schemes makes achieving universal coverage and adequate benefit levels possible (ILO, 2021). Contributory social protection schemes, most commonly social insurance, are an essential element of the social security system because those schemes are based on the payment of contributions by the protected persons or their employers. Social insurance has a vital role in financing the social security system and can reduce the fiscal burden on the government budget by offering reliable and stable financing mechanisms (ILO, 2021).

For tax-financed schemes, there are no required contributions from protected persons as they are mainly financed directly from the government budget, such as general taxation, other state revenues, or, in some cases, external grants or loans from development partners. Non-contributory schemes play critical roles in ensuring a basic level of protection within the social protection system for households with financial difficulties who do not have access to any other mechanism (ILO, 2021). Combining both approaches can ensure a basic level of protection for all while providing higher levels of protection to those with some contributory capacities (ILO, 2021).



Mandatory or voluntary coverage

In addition, when establishing a social protection system for small-scale farmers, governments need to decide whether the extension of coverage should be mandatory or voluntary, meaning whether the protected person can choose to join the scheme on their own. To make that vital policy decision, governments should carefully assess the contributory capacity of small-scale farmers.

Mandatory contributions are a fundamental aspect of social insurance schemes to ensure solidarity and guarantee all workers' protection, regardless of the costs and risks they may represent for the insurance scheme (Borowski & Kingson, 2019). In the context of limited contributory capacity, the government must actively engage to finance the scheme. However, even when guaranteed by law, ensuring mandatory contributions can be very difficult for reasons such as the unaffordability of the schemes, irregularity of income, limited administrative and inspection capacity in remote areas, difficulties in tracing employers' responsibility for wage workers with high labor mobility, and a lack of formal contracts. These limitations, particularly the lack of affordability for self-employed and casual

workers who do not have regular employers to pay their co-contributions, have led countries to establish voluntary schemes for informal workers.

Voluntary schemes can be essential to expand social insurance, but steps must be taken to ensure their effectiveness and participation incentives. Poorly designed voluntary social insurance schemes have many limitations. Ensuring that workers contribute voluntarily is challenging due to time preferences for spending versus saving (Winkler et al., 2017). In Vietnam, farmers and informal-sector workers (which includes the self-employed and wage employees without a contract or with a contract that runs less than three months) have the option to enroll in the national social insurance scheme implemented by Vietnam Social Security, but few do; coverage in 2012 was around 26 percent of this group in total and was much lower among farmers (Wagstaff et al., 2014). Vietnam's social insurance system has been formed. It is gradually being completed to meet the overall objective of providing social security for the entire population and increasing in-depth coverage for employees. Nevertheless, the coverage of voluntary social insurance still has several limitations. According to the data published by Vietnam Social Security, by the end of 2020, against 35 million informal employees eligible for voluntary social insurance, only 1,031,000 people participated in the program. (Long, et al., 2021).



2.5. CHALLENGES AND SOLUTIONS TO THE EXTENSION OF SOCIAL PROTECTION COVERAGE TO SMALL-SCALE FARMERS

The literature review shows that efforts to extend social protection coverage to small-scale farmers are challenging, and many challenges are expected to arise. The potential barriers to social protection coverage for small-scale farmers that the RGC should expect to encounter include but are not limited to: i) exclusion from legal coverage/Labour Law; ii) low contributory capacity and affordability; iii) lack of information, awareness, and trust in the system; and iv) administrative and institutional barrier.

Challenges	Possible Solutions
Exclusion from legal coverage: The current legal framework contributes only to the participation of specific categories of informal workers in social protection schemes, and although, technically, small-scale farmers are considered informal workers, their inclusion has yet to be ensured. As such, they cannot rely on the Social Security Law for its benefits and protections.	**Extending legal coverage:** First and foremost, it is required to amend the national legal frameworks to include the participation of small-scale farmers in social insurance schemes.
Low contributory capacity: As self-employed workers, they usually have to pay employee and employer contributions, which constitutes a significant barrier unless the State takes appropriate measures to subsidize their participation. Small-scale farmers' income is generally seasonal, low, irregular, and unpredictable, which creates additional challenges. The current implementation of social insurance schemes in Cambodia is not adapted to these income characteristics because the contributions are made monthly. Therefore, monthly contributions to social insurance schemes might pose another issue for small-scale farmers in addition to affordability.	**Accessing and adapting to the contributory capacity:** To overcome the barrier of low contributory capacity, feasibility studies and surveys should be made to analyze small-scale farmers' income levels and characteristics. The studies should also investigate their willingness to contribute and how much of their income could be invested in contributory schemes. **Allowing flexible contribution:** The current social insurance schemes require a monthly contribution from workers and employers, leading to difficulty extending to small-scale farmers. To address this, the RGC should consider allowing small-scale farmers to make flexible contributions during the periods their income is contracted in the year. **Subsidized insurance:** The registration and documentation preparation and their complicated process pose barriers to deter people from enrolling or incurring high opportunity costs to their participation.
Lack of information, awareness, and trust in the system: The concept of "social protection" and its benefits is still relatively foreign to most Cambodians. As such, the lack of information and awareness about social protection schemes may discourage small-scale farmers from registering. A lack of trust in the social security institutions and the expectations of small-scale farmers about the return and quality of services may also contribute to their reluctance to join a social security scheme.	**Awareness-raising campaign:** A nationwide awareness campaign should minimize the behavioral barriers preventing small-scale farmers from enrolling in and contributing to social insurance schemes. The campaign can also address the knowledge gap on the importance of social insurance schemes, how to make contributions, and the benefits of membership.
Administrative and institutional barriers: The The registration and documentation preparation and their complicated process pose barriers to deter people from enrolling or incurring high opportunity costs to their participation.	**Removing administrative and institutional barriers:** Facilitating registration and enhancing access to administrative procedures for small-scale farmers, including facilitating physical access through mobile social security offices, would reduce the need for supporting documents and simplify the procedure.



03 RESEARCH METHODOLOGY

3.1. SAMPLE DESIGN

The sample size of small-scale farmers[1] was scientifically determined based on the Cochran (1963:75)[2] formula. With a 95% confidence level and having the desired level of precision (margin of error) at 5% (0.05), the ideal sample size was determined as follows:

[1] Internationally, a small-scale farmer is a producer who rears livestock, raises fish, or cultivates crops on a limited scale – less than two hectares of land (Knight, 2022). Discussions with the MAFF officials revealed that a small-scale farmer holds less than one hectare of farmland. Further, based on the MoP, a small-scale farmer holds 300 square meters of farmland, two heads of draught animals, three heads of pigs, and 25 heads of poultry. This research surveys small-scale farmers with less than one hectare of farmland.

[2] W. G. Cochran. 1963. Sampling Techniques, 2nd Ed., New York: John Wiley and Sons, Inc.

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where,

no = Sample size (small-scale farmers)
Z = Standard normal variate (at 95% confidence level Z value is 1.96)
e = Margin of error/desired level of precision (assumed as) 5%, i.e., 0.05
p = Percentage of picking a response (maximum variability of the population at 50%, i.e., 0.5) q = 1-p

By using the given formula, the sample size of small-scale farmers was determined as 384. Based on the "kick-off" meeting discussion inputs and inception report, the sample size was approved. The target locations of the contributory study were the rural areas covering all four regions in the country, such as Central Plain, Coastal, Plateau and Mountainous, and Tonle Sap Lake. The study has adopted Multistage Sampling to select primary respondents (small-scale farmers) from the target areas. For this purpose, the selection was based on the following three stages:

Stage 1: Selection of province from each region of the country
Stage 2: Selection of commune from the selected provinces
Stage 3: Selection of small-scale farmers from the selected communes

In the first stage, from each region, except Central Plain, one province was randomly selected (Table 3.1).

Table 3.1: Selection of Target Province from Each Region

Regions			
Central Plain	Coastal	Plateau and Mountainous	Tonle Sap Lake
Selected Provinces			
Kampong Cham Prey Veng	Kampot	Kampong Speu	Kampong Chhnang

In the second stage, 10% of the communes were randomly selected from the selected provinces for conducting the field survey (Table 3.2)

Table 3.2: Number of Selected Communes from Each Province

Region	Selected province	Total number of communes*	Number of selected communes
Central Plain	Kampong Cham	107	11
	Prey Veng	103	10
Coastal	Kampot	93	9
Plateau and Mountainous	Kampong Speu	84	8
Tonle Sap Lake	Kampong Chhnang	66	7
Total number of communes surveyed			45

Source: *National Report on Final Census Results 2019; NIS, 2020; and study calculation.

In the third stage, the number of small-scale farmers was allocated to the target areas as per the proportion of the concerned region's small holdings to the country's total holdings (Table 3.3).

Table 3.3: Number of Household Holdings as per Agricultural area at the Regional Level and Distribution of Sample

Region	Total number of holdings	Total number of small holdings	% of small holdings to total	Sample number
Central Plain	871,000	528,000	51.2	197
Coastal	141,000	97,000	9.4	36
Plateau and Mountainous	304,000	136,000	13.2	51
Tonle Sap Lake	723,000	271,000	26.2	100
Cambodia	2,038,000	1,032,000	100.0	384

Source: Cambodia Agricultural Survey 2020 (CAS, 2020) Final Report, NIS and MAFF; and study calculation.

Based on the information in Table 3.3, sample small-scale farmers were distributed among the selected provinces (Table 3.4). Finally, from the target areas, the sample of small-scale farmers was selected based on Snowball Sampling to avoid any selection bias.

Table 3.4: Distribution of Sample Small-Scale Farmers among the Selected Provinces

Region	Selected province	Sample small-scale farmers
Central Plain	Kampong Cham	99
	Prey Veng	98
Coastal	Kampot	36
Plateau and Mountainous	Kampong Speu	51
Tonle Sap Lake	Kampong Chhnang	100
Total Key Informants		15



3.2. QUESTIONNAIRE DESIGN AND PRE-TESTING

Two questionnaires were prepared for the sample of small-scale farmers and KIs to implement the study. The questionnaires were designed by identifying topics to be addressed in the study: risks and vulnerabilities of small-scale farmers, understanding of small-scale farmers about NSSF and accessibility to social protection schemes, needs and social protection priorities of small-scale farmers, available NSSF schemes suitable for small-scale farmers, the ability of small-scale farmers to contribute to NSSF regularly, key challenges to make contributions, external barriers to expanding the NSSF coverage for small-scale farmers, and others. These topics were then clustered into the contributory capacity of small-scale farmers to NSSF with open and close-ended options. Questions and answer options were discussed and adjusted per the feedback and comments from the OXFAM team. The questionnaires were translated from English to Khmer and translated back to ensure comprehension and accuracy in translation (Please see the Sample Questionnaires in Annex 1 and 2).

Before finalizing the questionnaires for field data collection through interviews, the study and OXFAM teams assessed them for language, understanding, and time requirements. The draft questionnaires were pre-tested with five samples in Kampong Speu province and approved by the OXFAM team to administer in the field.



3.3. DATA COLLECTION

Desk Review: The consultant reviewed relevant policies, legislations, guidelines, and related social security documents, including several study reports on similar and/or relevant topics, before collecting primary data. This helped broaden the current study's scope and provide further information for validation against other sources (Please see the literature review in Section 2).

Small-scale farmers Survey: The interviews with sample respondents were conducted by trained enumerators through face-to-face administration of the semi-structured questionnaire after receiving their verbal consent, and the data collection period spanned approximately two months, February - March 2023.

Key Informant Interviews (KIIs): The KI interviews were semi-structured and covered the topics mentioned earlier. The consultant and local associate

conducted these interviews face-to-face. Verbal consent was sought from the key informants before the interview was conducted. Each key informant interview took approximately one and a half hours to complete. The period of interviews spanned approximately three weeks in March – April 2023.

Field Observation: A careful field observation was conducted during the field survey. It captured the prevailing environment in the target areas per the research topic. Essential observations were made and noted to inform the research on the current working environment, including the risks and vulnerabilities faced by small-scale farmers, including their living conditions and need for social protection.



3.4. DATA ANALYSIS AND REPORTING

Data analysis in this study was both qualitative and quantitative. The primary data from the small-scale farmers through interviews were edited before being entered into MS Excel for analysis. Open-ended responses were coded to arrive at clusters. The data was analyzed primarily through frequency tables and cross-tabulations to filter the required information. A thematic approach was used to analyze the responses gathered from the KIIs. Analysis was taken separately for target categories and sub-populations (sex) before it was undertaken for the overall group.



3.5. DATA QUALITY AND AUTHENTICITY

Ensuring data quality was one of the prime concerns of the study team. To ensure data quality, the field supervisor randomly carried out authenticity checks during the survey. The interviewers were allowed to conduct up to eight interviews daily to avoid any negative impact on data quality due to limited time. Additionally, the supervisor conducted re-interviews of a randomly sampled five percent to detect cases of data falsification. Back-checks confirmed the authenticity of the data collected as the respondents confirmed the information they had given in the initial interviews. In addition, to ensure better data treatment, field and central-level editing were conducted prior to data entry.



3.6. ETHICAL CONSIDERATIONS

The study employed several ethical principles to ensure the privacy, safety, and security of the sample respondents and the KIs in all phases. Before participating in the study, potential respondents were informed that they were not obligated to participate and would face no penalty if they chose not to participate. As such, their participation in the survey was completely voluntary. Further, participants were informed that they were free to withdraw their participation at any time during the interview. They were assured that there would be no pressure on participation, and accordingly, the study team was instructed to ensure this during the interviews strictly. To ensure that the participants felt safe to answer honestly, the study team did not interview any respondents they knew previously. The information would not be shared with other organizations except the OXFAM in Cambodia team to protect the anonymity and confidentiality of the respondents. Additionally, the study team will clean the database soon after the finalization of the report. Finally, the data gathered was guaranteed to be used solely for the current study and any further follow-up action.



3.7. LIMITATIONS OF THE STUDY

The potential limitations of the study include response bias and recall bias. There are many reasons why respondents may provide socially desirable answers (less-than-truthful responses) or incorrectly recall details as events over a longer time interval are being asked about, including age, education, and socio-economic status. The study attempted to reduce this potential bias by providing respondents with clear information about the purpose of the study and why they were selected for the interview. Respondents were further assured that their responses would not affect their participation in this project and would never be identified individually or by name in the study report.

Another limitation of the analysis and interpretation is the selection of survey areas and distribution of samples in the target areas. The survey was carried out in five provinces comprising 45 communes, and the distribution of the sample of small-scale farmers was made arbitrarily among the communes in the target provinces. This should be considered while comparing the data among the target areas. In the future, region-wise studies may be taken up with more provinces.

During the data collection process, it proved challenging to find small-scale farmers as they were busy with their farm and household activities, and

many declined to participate in the survey. As such, to carry out the field survey smoothly, enumerators approached sample respondents at their convenient times to conduct the interviews.

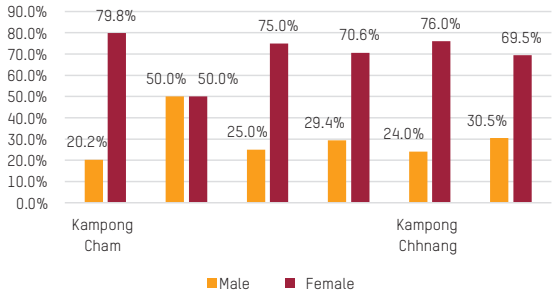
Lastly, it is essential to remember that this study does not intend to represent Cambodia's small-scale farmer population. However, as the sample size of small-scale farmers is statistically determined, we consider the sample representative of the small-scale farmers population in the target areas.

04 STUDY FINDINGS

4.1. SOCIO-DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS

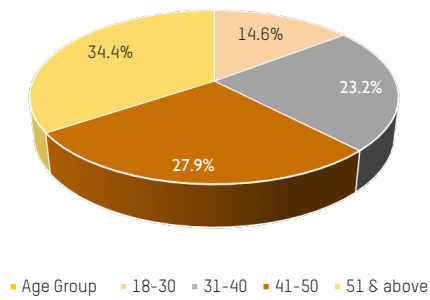
The brief profile of the survey respondents is illustrated in Table 4.1. Among 384 sample respondents, 69.5 percent were female, and 30.5 percent were male small-scale farmers. The higher percentage of female participation in the survey was due to the greater availability of female small-scale farmers in their households when approached for the survey. In Kampong

Figure 4.1: Gender Distribution of Sample Respondents



Cham province, female small-scale farmers represented 79.8 percent, followed by 76.0 percent in Kampong Chhnang and 75.0 percent in Kampot province. All of the target provinces in the study had the participation of at least 50.0 percent of the female small-scale farmers. Thus, as shown in Figure 4.1, as a whole, more than two-thirds representation of female small-scale farmers was found in the study.

Figure 4.2: Respondents by Age Group



The respondents in the age group of 51 and above represent more than one-third of the total sample size (Figure 4.2). Also, close to two-thirds (62.3 percent) of the small-scale farmers surveyed belonged to the age group of 41 and above age-group, which implies the presence of the senior members in the study. The higher percentage of elderly farmers who participated in the survey was due to their availability and willingness to participate when enumerators approached them. Considering gender representation in different age groups, the percentage of female respondents aged 18-30 (75.0 percent) was much above compared to all other age groups (Table 4.1). In all age groups, the percentage of female representation was either close to two-thirds (51 and above age group) or more than two-thirds (18-30, 31-40, and 41-50 age groups).

Figure 4.3: Educational levels of Sample Respondents

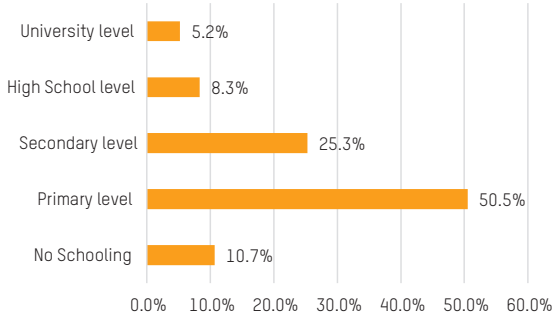


Figure 4.3 shows the educational levels of the sample small-scale farmers. As revealed, the percentage of respondents in the primary level of education was the highest (50.5 percent), followed by the secondary level (25.3 percent) and no schooling (10.7 percent). Further, in all levels of education, the percentage of female respondents was higher than that of male respondents. The highest percentage of female respondents (82.9 percent) was found in the no schooling category, followed by the primary level (72.7 percent) of education (Table 4.1).

More than three-fourths of the sample respondents (77.1 percent) who participated in the survey were married. While around 5.7 percent were single, the remaining 14.3 percent were widowed, and 2.3 percent were divorced (Figure 4.4). Both in the single and married categories, as compared to the male counterparts, the presence of female respondents was nearly two-thirds (63.6 percent in the single category; 65.5 percent in the married category) (Table 4.1).

Figure 4.4: Marital Status of Sample Respondents

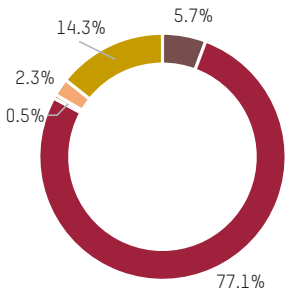


Table 4.1: Profile of the Surveyed Small-Scale Farmers

Profile	N	Percentage	Male	Female
Sex	384	100%	117 30.5%	267 69.5%
Target Provinces				
Kampong Cham	99	25.8%	20 20.2%	79 79.8%
Prey Veng	98	25.5%	49 50.0%	49 50.0%
Kampot	36	9.4%	09 25.0%	27 75.0%
Kampong Speu	51	13.3%	15 29.4%	36 70.6%
Kampong Chhnang	100	26.0%	24 24.0%	76 76.0%
Age Group				
18-30	56	14.6%	14 25.0%	42 75.0%
31-40	89	23.2%	26 29.2%	63 70.8%
41-50	107	27.9%	29 27.1%	78 72.9%
51 & above	132	34.4%	48 36.4%	84 63.6%
Level of Education				
No Schooling	41	10.7%	7 17.1%	34 82.9%
Primary level	194	50.5%	53 27.3%	141 72.7%
sSecondary level	97	25.3%	37 38.1%	60 61.9%
High School level	32	8.3%	12 37.5%	20 62.5%
University level	20	5.2%	08 40.0%	12 60.0%
Marital Status				
Single	22	5.7%	08 36.4%	14 63.6%
Married	296	77.1%	102 34.5%	194 65.5%
Separated	02	0.5%	-	02 100.0%
Divorced	09	2.3%	-	09 100.0%
Widowed	55	14.3%	07 12.7%	48 87.3%

The number of earning members in the surveyed respondent's households is shown in Table 4.2. In each target area, two earning members were found in more than 45.0 percent of households, and in total, it was half (50.0 percent) of the surveyed households. For more than two-fifths of respondents (22.7 percent), it was a single earning member, followed by three earning members in 19.0 percent of respondents' households. The lowest, only 1.3 percent, respondents had five or more earning members in their households. The remaining respondents (7.0 percent) had four earning members in their households. Taken together, the total earning members in the surveyed respondents' households were 823, and as such, the average earning members size of the surveyed households was 2.1 (Table 4.2).

Table 4.2: Earning Members in Sample Respondents Households

Target areas	Number of earning members					Total
	One	Two	Three	Four	Five and more	
Kampong Cham	20.2%	45.5%	20.2%	10.1%	4.0%	100.0%
Prey Veng	9.2%	46.9%	32.7%	11.2%	0.0%	100.0%
Kampot	27.8%	47.2%	22.2%	2.8%	0.0%	100.0%
Kampong Speu	23.5%	51.0%	15.7%	7.8%	2.0%	100.0%
Kampong Chhnang	36.0%	58.0%	5.0%	1.0%	0.0%	100.0%
All	87 22.7%	192 50.0%	73 19.0%	27 7.0%	5 1.3%	384 100.0%
Total number of earning members	87	384	219	108	25	823
Average earning members in household	**2.1**					

Table 4.3 shows the number of members working on farmland in the surveyed respondent's households. In more than two-fifths of households (43.5 percent), two members were found working on farmland (highest in Kampong Cham, 56.6 percent), followed by in more than one-third of cases (37.0 percent) only a single member of household worked on farm. Likewise, in 15.6 percent of households, three members engaged in their farmland. This is followed by the engagement of four and five members in 2.6 percent and 1.3 percent of households, respectively.

Table 4.3: Members Working on Farm in Sample Respondents Households

Target areas	Number of earning members					Total
	One	Two	Three	Four	Five and more	
Kampong Cham	32.3%	56.6%	7.1%	3.0%	1.0%	100.0%
Prey Veng	43.9%	23.5%	26.5%	6.1%	0.0%	100.0%
Kampot	33.3%	44.4%	19.4%	0.0%	2.8%	100.0%

Target areas	Number of earning members					Total
	One	Two	Three	Four	Five and more	
Kampong Speu	33.3%	45.1%	15.7%	2.0%	3.9%	100.0%
Kampong Chhnang	38.0%	49.0%	12.0%	0.0%	1.0%	100.0%
All	142 37.0%	167 43.5%	60 15.6%	10 2.6%	5 1.3%	384 100.0%
Total number of members working on farm	142	334	180	40	25	721
Average members working on farmland in household	**1.9**					

So far as the size of farmland of surveyed households is concerned, in all target areas, more than three-fourths of surveyed small-scale farmers possessed less than 0.5 hectares of farmland. While in Kampong Speu's target area, all surveyed small-scale farmers owned less than 0.5 hectares of land; this was 97.2 percent in the case of Kampot and 93.9 percent in the case of Kampong Cham. As revealed, 89.1% of surveyed households possessed less than 0.5 hectares of land, and the remaining 10.9 percent owned 0.5 – <1.0 hectares of farmland (Table 4.4).

Table 4.4: Size of Farmland of Sample Respondents Households

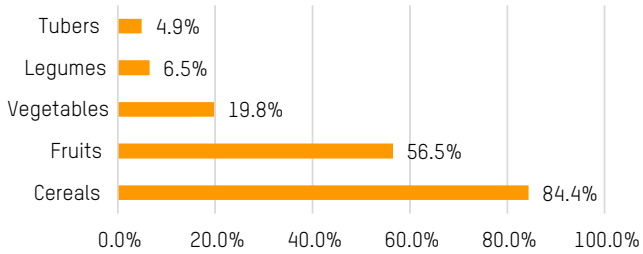
Size of farmland	Target areas					All
	Kampong Cham	Two	Three	Four	Five and more	
< 0.5 hectare	93.9%	75.5%	97.2%	100.0%	89.0%	100.0%
0.5 – <1.0 hectare	6.1%	24.5%	2.8%	0.0%	11.0%	100.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The field survey has also revealed the livestock ownership position of small-scale farmers in the target areas. Table 4.5 shows that more than 80.0 percent of surveyed farmers owned chicken/duck, and as such, the average size of chicken/duck was 13.6 units per household surveyed. Compared to chicken/duck, the average sizes of cow, buffalo, and pig per household were 3.1, 4.2, and 3.8, respectively. Thus, in the case of livestock, possessing chicken and/or duck was found to be very common among small-scale farmers.

Table 4.5: Livestock Position of Sample Respondents Households

Households/livestock	Livestock			
	Cow	Buffalo	Pig	Chicken/Duck
Number of households	250	06	16	309
Number of livestock	769	25	60	4,209
Average livestock of household	3.1	4.2	3.8	13.6

Figure 4.5: Types of Crops Cultivated by Households



In the target areas, while the majority of the small-scale farmers (84.4 percent) were engaged in cultivating cereals such as rice, millet, corn, and others, more than half of them (56.5 percent) produced fruits like banana, watermelon, lemon, pineapple, mango, and others. Also, one-fifth (19.8 percent) of the surveyed farmers cultivated vegetables on their farmland. As shown in Figure 4.5, a relatively smaller number of small-scale farmers in the target areas engaged in the cultivation of legumes: lentils, beans, soya, and peas (6.5 percent) and tubers: potatoes, sweet potatoes (4.9 percent).

4.2. RISKS AND VULNERABILITIES BEING FACED BY SMALL-SCALE FARMERS

This section presents self-assessed potential risks and vulnerabilities of small-scale farmers on their farm income. Their assessment covered four critical areas of potential risks and vulnerabilities: climate changes and environmental vulnerabilities, physical vulnerability, social vulnerability, and economic vulnerability. We present these results with supporting data from the field survey and KI interviews.

Climate changes and environmental vulnerabilities

The assessment of risks and vulnerabilities relating to climate changes and the environment covered seven vital sources: extreme weather events (cyclones), natural disasters, flooding, drought, fire, unseasonal weather, and pest and disease outbreaks. When sample respondents were asked to assess their potential risks and vulnerabilities on their farm income on a scale of 1 to 10, the average score (mean value) across all seven sources was 4.7 (Table 4.6), indicating a low to moderate level score (based on the 10-point rating scale, points less than 5.5 (<5.5) indicates low to moderate and points from 5.5 to 10 indicates moderate to significant level of risks and vulnerabilities). Amongst all sources of risks and vulnerabilities, the highest mean score was obtained against pest and disease outbreaks (6.2: moderate to significant level of risks and vulnerabilities), followed by drought (4.9), unseasonal weather (4.6), and extreme weather events (4.5). As revealed, with a mean score of 2.3, surveyed respondents considered firing the least potentially vulnerable factor on their farm income.

Table 4.6: Average Self-score by Small-Scale Farmers of the Potential Climate Changes and Environmental Vulnerabilities on Farm Income

Type of Risk and vulnerability	Sources	Average score (Scale 1-10)
Climate changes and environmental vulnerabilities	Extreme weather events (cyclones)	4.5
	Natural disaster	4.5
	Flooding	4.2
	Drought	4.9
	Fire	2.3
	Unseasonal weather	4.6
	Pest and disease outbreak	6.2
	All	4.7



Physical vulnerability

The physical vulnerability can potentially negatively affect small-scale farmers' income and well-being. The sources of physical vulnerability include lack of access to water resources, lack of electric power, poor means of communication, and lack of transportation. The survey result reveals an overall mean score of 3.9 (Table 4.7), indicating a low to moderate level of physical vulnerability on the farm income of small-scale farmers. While lack of access to water resources secured the highest mean score (4.6), the lowest mean score was seen against lack of electric power (2.8). For all sources, the average score indicates a low to moderate level of physical vulnerability on the farm income of small-scale farmers.

Table 4.7: Average Self-score by Small-Scale Farmers of the Potential Physical Vulnerability on Farm Income

Type of Risk and vulnerability	Sources	Average score (Scale 1-10)
Physical vulnerability	Lack of access to water resources	4.6
	Lack of electric power	2.8
	Poor means of communication.	3.5
	Lack of transportation	4.4
	All	3.9



Social vulnerability

Seven sources of social vulnerability were taken into account to understand their potential impact on the farm income of small-scale farmers. These include prolonged sickness of farmers, prolonged sickness of family members, maternity and post maternity period, caring for children, elderly,

sick family members and members with disabilities, domestic work and schooling, working in hazardous conditions, and work injury. The average score of all sources valued by sample small-scale farmers shows low to moderate levels of social vulnerability on their farm income. While the average score across all seven sources was 3.8 (Table 4.8), indicating a low to moderate level score, the highest score of 4.4 was seen against the source: caring for children, elderly, sick family members and members with disabilities, followed by maternity and post maternity period (4.3) and prolonged sickness of family members (3.9).

Table 4.8: Average Self-score by Small-Scale Farmers of the Potential Social Vulnerability on Farm Income

Type of Risk and vulnerability	Sources	Average score (Scale 1-10)
Social vulnerability	Prolonged sickness of farmer	3.7
	prolonged sickness of family members	3.9
	Maternity and post maternity period	4.3
	Caring for children, elderly, sick family members and members with disabilities	4.4
	Domestic work and schooling	3.8
	Working in hazardous conditions	3.4
	Work injury	3.2
	All	3.8



Economic vulnerability

The potential impact of economic vulnerability on the farm income of small-scale farmers was assessed by considering nine sources. These include lack of ability to access loans, lack of ability to repay loans, higher borrowing interest rates, increasing debt burden, rising agricultural input costs, falling crop price (procurement price), high volatility in market prices of agricultural products, poor yields/crop failures, and high livestock mortality. The survey result reveals an overall mean score of 5.0 (Table 4.9), indicating a low to moderate level of presence of economic vulnerability on the farm income of small-scale farmers. With a mean score of 6.2 (moderate to a significant level), surveyed farmers considered high volatility in market prices of agricultural products to have the highest impact on their farm income. In addition, other sources such as poor yields/crop failures (5.6), falling crop prices (5.6), and high livestock mortality (5.5) indicate moderate to significant levels of economic risk and vulnerability on their farm income.

Table 4.9: Average Self-score by Small-Scale Farmers of the Potential Economic Vulnerability on Farm Income

Type of Risk and vulnerability	Sources	Average score (Scale 1-10)
Economic vulnerability	Lack of ability to access loans	4.2
	Lack of ability to repay loans	4.1
	Higher borrowing interest rates	3.8
	Increasing debt burden	4.2
	Rising agricultural input costs	5.4
	Falling crop price (procurement price)	5.6
	High volatility in market prices of agricultural products	6.2
	Poor yields/crop failures	5.6
	High livestock mortality	5.5
	All	5.0

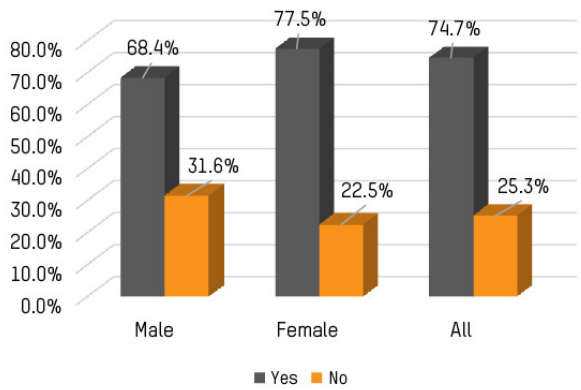
The risks and vulnerabilities assessment, thus, shows that the high volatility in market prices of agricultural products (economic vulnerability) and pest and disease outbreaks (climate changes and environmental vulnerabilities), with a mean score of 6.2 each, topped the list of sources of risks and vulnerabilities.

In line with the survey findings, the KIs expressed their understanding and assessment of possible risks and vulnerabilities affecting the livelihoods and well-being of small-scale farmers. According to them, the most significant economic vulnerabilities are unfavorable market prices for agricultural goods, rising agricultural input costs, and lack of ability of small-scale farmers to repay loans. In addition, the farm income of small-scale farmers is affected by adverse weather conditions and climate change, such as drought, flood, and other natural disasters, including pest and disease outbreaks. Some of the KIs also viewed the prolonged sickness of family members as one of the risks and vulnerabilities faced by small-scale farmers.

4.3. UNDERSTANDING ABOUT THE NSSF AND ACCESSIBILITY TO SOCIAL PROTECTION

This section explores small-scale farmers' knowledge about the NSSF and their accessibility to social protection schemes, including their preference for acquiring information about the NSSF.

Figure 4.6: Awareness of the NSSF



Awareness and knowledge of the NSSF

Concerning the awareness of small-scale farmers about the NSSF in Cambodia, just above one-fourth (25.3 percent) of the total respondents in the target areas were unaware of the NSSF, whereas close to three-fourth (74.7 percent) of them were aware of (Figure 4.6). This indicates that most surveyed small-scale farmers were aware of the NSSF in Cambodia. Comparing the awareness between the male and female farmers, as shown in Figure 4.6, a higher percentage of female farmers (77.5 percent) than male farmers (68.4 percent) were aware of the NSSF. Although most of them were aware of this, as a first step, the strategy should ensure a higher awareness among the small-scale farmers about the NSSF, which could be through wide dissemination of information.

As revealed in Table 4.10, most respondents who were aware of the NSSF were not at all knowledgeable or slightly knowledgeable about the various provisions of the NSSF. The highest, 208 surveyed small-scale farmers among 287 (72.5 percent), did not know the benefits-claiming procedure, followed by a majority of those not at all knowledgeable about the process of contributing to the NSSF (193 respondents), the contribution amount for each scheme by members to the NSSF (181 respondents), and the

membership registration process to the NSSF (165 respondents). Also, they could have been more knowledgeable, and a few of them were moderately knowledgeable or somewhat knowledgeable about the various provisions of the NSSF. The overall mean score of 1.6 clearly shows that respondents were not knowledgeable or had a very low level of knowledge about the NSSF. The findings strongly suggest putting more effort into disseminating information among the potential beneficiaries about the NSSF's provisions, starting from membership registration to claiming benefits.

Table 4.10: Level of Knowledge of Small-Scale Framers about Provisions of the NSS

Type of Risk and vulnerability	Number of respondents having different levels of knowledge (N = 287)				
	1	2	3	4	5
Available schemes in the NSSF	46	175	52	13	1
Membership registration process to the NSSF	165	98	15	9	-
Contribution amount by member to the NSSF	181	84	15	7	-
Process of making contribution to the NSSF	193	74	14	6	-
Overall mean	1.6				

Note: 1- Not at all knowledgeable, 2- Slightly knowledgeable, 3- Somewhat knowledgeable, 4- Moderately knowledgeable, 5- Very knowledgeable



Information sharing about the NSSF and Current Schemes

In light of the limited knowledge of the small-scale farmers about the various provisions of the NSSF and current social security schemes, information sharing among them is considered highly beneficial. As revealed, more than half of the respondents (51.1 percent; female: 57.0 percent) have felt that it is imperative to them to receive such information (modal value = 5), followed by more than two-fifths (43.2 percent) of them who have found this moderately important (Figure 4.7). Thus, based on this finding, it is essential to share information about the schemes and potential benefits that would generate interest among the target group to become members of the NSSF to avail of various benefits. Considering the various ways of sharing information about the NSSF among the small-scale farmers,

Figure 4.7: Importance of Sharing Information

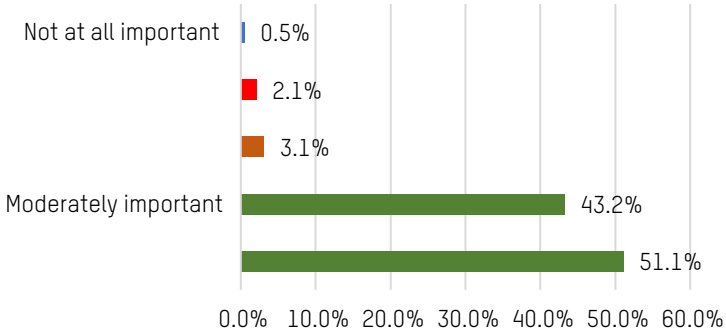
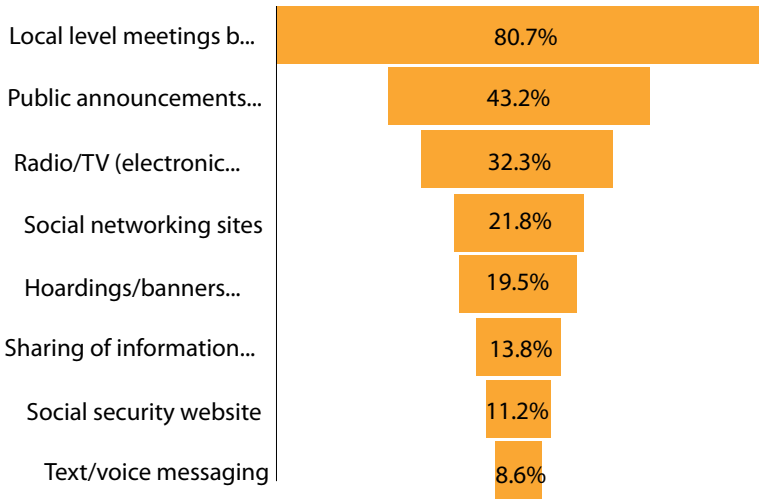


Figure 4.8: Preferred ways of receiving Information



the majority of the respondents (80.7 percent; male: 76.1 percent; female: 82.8 percent) have felt that local-level meetings by the village authorities were the most effective way followed by more than two-fifths (43.2 percent) of the respondents who have opted for public announcements through loudspeakers (Figure 4.8). The other preferable modes of delivery include radio/TV (32.3 percent), social networking sites (21.8 percent), hoardings/ banners/ posters (19.5 percent), and sharing of information by NGOs (13.8 percent). Therefore, multiple ways should be considered to share information about the NSSF among the target group. However, keeping local-level meetings by the village authorities should be at focus as the respondents mostly preferred it. The KIs at the national level have suggested using organizations such as agricultural cooperatives/associations, including self-help groups (SHGs), as these are very effective at the village level.

4.4. NEEDS AND SOCIAL PROTECTION PRIORITIES OF SMALL-SCALE FARMERS

This section presents how respondents self-assess their needs and prioritize social protection to secure the future livelihood of their families. We present these results with supporting data organized by key research areas of interest. It is also supplemented by the key informants' opinions gathered through interviews.

Social protection schemes currently aware of and accessed

Our study has revealed that most of the surveyed small-scale farmers (335 farmers; 87.2 percent) in the target areas were aware of the various social protection schemes and, accordingly, have accessed the benefits. Although the respondents were aware of several social protection schemes, the top five social protection schemes known to the respondents as shown in Table 4.11 were: 1) HEFs for family with ID card/priority cards (223 farmers; 66.6 percent; male: 66.4 percent; female: 66.7 percent), 2) Health care for formal economy workers (187 farmers; 55.8 percent; male: 47.7 percent; female: 59.7 percent), 3) Cash transfer for the near-poor vulnerable family who is impacted by flood (163 farmers; 48.7 percent; male: 40.2 percent; female: 52.6 percent), 4) Cash transfer for the near-poor family who is impacted from inflationary pressure (138 farmers; 41.2 percent; male: 22.4 percent; female: 47.4 percent), and 5) Cash transfer program for pregnant women and children under two years old (115 farmers; 34.3 percent; male: 22.4 percent; female: 39.9 percent).

As revealed from the survey, among the sample small-scale farmers with access to social protection schemes (n = 120), close to half of them (59 farmers; 49.2 percent) were currently accessing Health Equity Funds for the families with ID card/priority cards followed by just above a quarter of them (31 farmers; 25.8 percent) who availed cash transfer for the near-poor family who are impacted from inflationary pressure. Although nearly two-fifths (39.9 percent) of female respondents (91 among 228) were aware of the cash transfer program for pregnant women and children under two years old, only 9.0 percent of them (8 female farmers) accessed that scheme. Further, 10.0 percent of surveyed small-scale farmers (12 farmers) were currently accessing the cash transfer for the near-poor vulnerable families impacted by flood (Table 4.11). Thus, the results reveal that except for one scheme, HEFs for families with ID cards/priority cards, the participation of sample respondents in other schemes was not very encouraging.

Table 4.11: **Awareness and Access of Surveyed Respondents to Social Protection Schemes**

Selected social protection schemes	Aware of and currently accessing (%)	
	Aware of (N = 335)	Currently accessing (N = 120)
HEFs for family with ID card/priority cards	66.6	49.2
Health care for formal economy workers	55.8	-
Cash transfer for near poor vulnerable family who are impacted by flood	48.7	10.0

Cash transfer for near poor family who are impacted from inflationary pressure	41.2	25.8
Cash transfer program for pregnant women and children under 2 years old#	39.9	9.0
Crop distributions	**16.7**	**18.3**

Note: # Shows the response of female small-scale farmers.

Occupational risks or health-related problems, and planning for the future

Regarding occupational risks or health-related problems of the small-scale farmers' current work, more than nine among ten respondents (94.5 percent; male: 96.6 percent; female: 93.6 percent) have agreed that their farm activity involves different risks or health-related problems (Figure 4.9). Further, it was revealed by those who agreed upon the presence of risks at their work that exposure to wastage and chemicals was the most significant one (79.3 percent). The other conditions faced by the small-scale farmers during their daily work include working under adverse weather conditions (52.9 percent), working during odd hours (45.5 percent), and using hazardous hand tools (38.3 percent) (Figure 4.10). The presence of these occupational risks or health-related problems highlights the need to pay attention to the safety and health of the small-scale farmers for their livelihoods.

Figure 4.9: Presence of Occupational Risks or Health-Related Problems

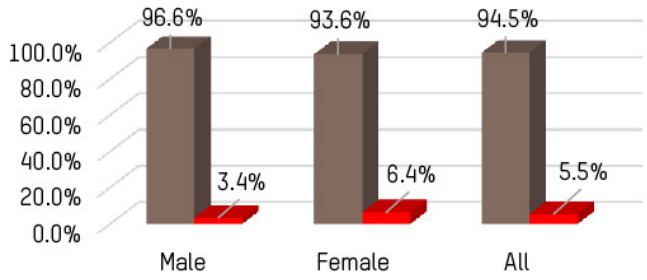
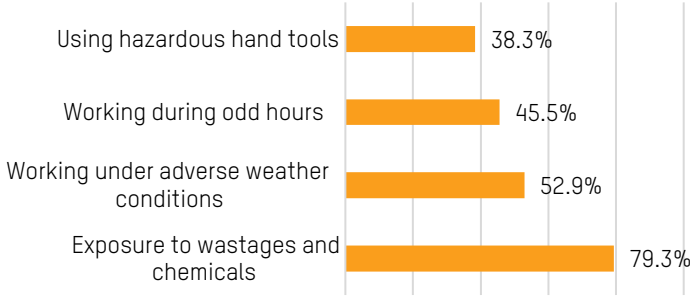


Figure 4.10: Types of Occupational Risks or Health-Related Problems



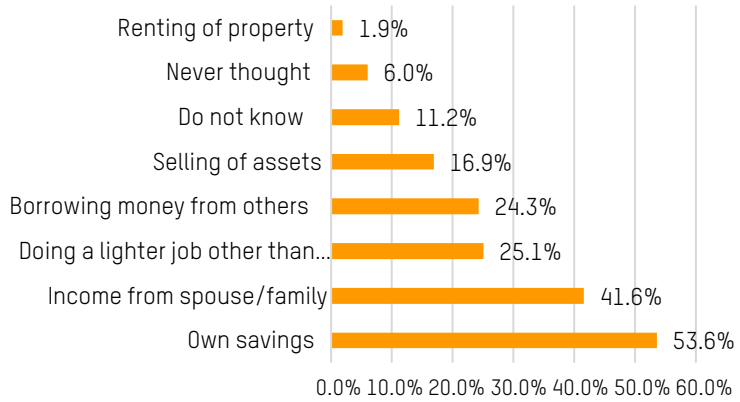
When asked about respondents' plan to meet their loss of income from the farm in case of several adverse conditions, such as long-term debt/sickness/injury or disability, including natural disasters, most of them have cited more than one financial source in order to do so. More than two-fifths of the surveyed small-scale farmers have mentioned using their savings (46.4 percent), followed by borrowing money from others (41.2 percent), and depending upon the income of their spouse/family (30.5 percent). Others would be selling assets (26.8 percent) and depending upon other sources of income (13.5 percent). More than one-tenth of respondents (12.0 percent) do not know what to do if faced with such adverse conditions. Comparing the responses between the female and male small-scale farmers reveals that a higher percentage of female respondents (44.6 percent) would like to borrow money from others in the future in order to meet their long-term sickness/injury or disability, including natural disasters. In contrast, more than half (52.1 percent) of the male farmers would like to depend upon their savings (Table 4.12). The results as a whole signify the requirement for an external support mechanism to meet the needs of the small-scale farmers, and as such, membership to the NSSF will be the right choice for them in this case.

Table 4.12: **Planning to Meet Long-term Debt/Sickness/Injury or Disability, and Natural Disasters**

Category of respondents	Different ways to meet income loss						
	Own savings	Selling of assets	Borrowing from others	Other sources of own income	Renting of property	Income from spouse/ family	Don't know
Female	43.8%	28.1%	44.6%	10.9%	0.4%	30.0%	12.4%
Male	52.1%	23.9%	33.3%	19.7%	0.0%	31.6%	11.1%
All	46.4%	26.8%	41.2%	13.5%	0.3%	30.5%	12.0%

For female small-scale farmers, meeting livelihood during maternity and making up for the hospitalization and post-delivery expenses could be challenging. As such, when asked about their plan to meet their livelihood during such conditions, more than half of them (53.6 percent) have considered using their savings for their maternity, hospitalization, and post-delivery expenses. The rest of the female respondents have thought of using the income of their spouse/family (41.6 percent), doing a lighter job other than farming (25.1 percent), and selling off assets (16.9 percent). Also, while more than one-tenth (11.2 percent) of female respondents have yet to learn how to meet their expenses, 6.0 percent of them have yet to give this a thought (Figure 4.11). Thus, membership in the NSSF will be necessary for female small-scale farmers as they can access healthcare services without having an additional economic burden.

Figure 4.11: Planning to Meet Livelihood during Maternity Period, including Hospitalization

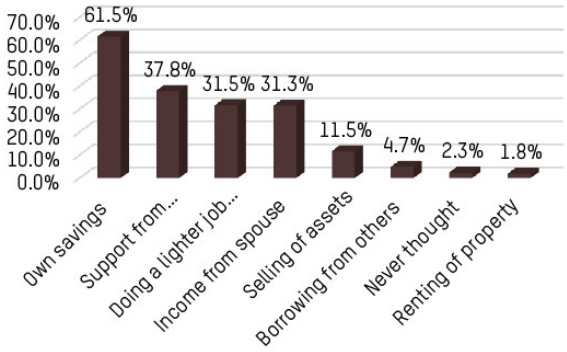


As observed by the KIs, small-scale farmers used multi-pronged strategies in the event of losing income from their farms due to several risks and vulnerabilities. These include migrating to other areas to undertake paid employment in the private sector, adopting other livelihood activities such as raising chickens and pigs, carrying out small-scale business such as street selling, borrowing money from relatives and friends, and sometimes selling family assets and properties. In addition, they found that a few of the young women farmers undertook vocational training like hairdressing and beauty care and started working in salons and make-up shops. The KIs at the national level have informed that considering the risks and vulnerabilities affecting the livelihoods of the small-scale farmers, the Royal Government has supported them by raising their level of knowledge about the agricultural farm through field-level demonstrations, distributed high-yielding varieties of seeds, including chicks, materials, and medicines.

Provision to secure old age livelihood

Small-scale farmers must make specific provisions in their lives to secure old-age livelihoods. As revealed in Figure 4.12, most respondents have chosen more than one provision to secure their old-age livelihoods. However, among several provisions, the small-scale farmers have primarily thought of planning to make savings (61.5 percent; male: 63.3 percent; female: 60.7 percent), followed by taking support from their family/children (37.8 percent), and by doing a lighter job (31.5 percent). Some respondents have also considered using the income of their spouse (31.3 percent), selling some assets (11.5 percent), and borrowing money from others (4.7 percent). A small percentage of respondents (2.3 percent) have negatively responded to having any provisions for their old-age livelihoods. Thus, small-scale farmers need a permanent source of income to secure their old-age livelihoods.

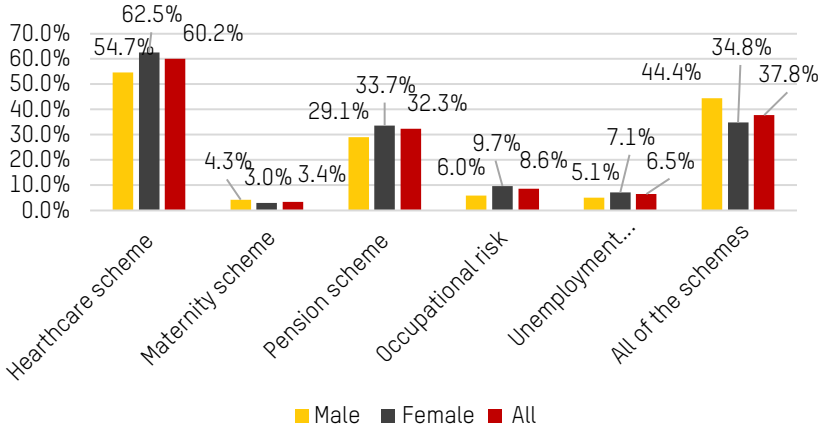
Figure 4.12: Future Plan to Secure Old Age Livelihood



Suitability of schemes for future income security

The surveyed respondents have opted for suitable schemes to secure their future incomes in light of potential risks, such as occupational, natural, and environmental risks. The choice of the schemes was based on the nature of their job, work settings, and potential risks (occupational risks), mainly linked to their farm activities. Just above three-fifths of the respondents (60.2 percent; female: 62.5 percent) have mentioned the healthcare scheme as their most preferred one, followed by nearly one-third (32.3 percent; female: 33.7 percent) of them who have chosen the pension scheme. The other schemes preferred by the surveyed small-scale farmers include the employment injury/occupational risk scheme (8.6 percent), unemployment scheme (6.5 percent), and maternity scheme (3.4 percent). Also, 37.8 percent of surveyed small-scale farmers (male: 44.4 percent; female: 34.8 percent) strongly felt about the above schemes' suitability (Figure 4.13). Thus, the findings show that healthcare remains the top and immediate concern and requirement for small-scale farmers, followed by the pension scheme.

Figure 4.13: Suitable Schemes for Future Income Security



The findings show that the three most suitable schemes are 1) healthcare, 2) pension, and 3) employment injury/occupational risk. Their importance is also ranked accordingly, as healthcare is the most important, followed by pension and employment injury. The main reason healthcare is considered the most suitable and crucial scheme by the KIs is due to the lack of universal healthcare coverage and expensive medical care/treatment. Most small-scale farmers do not have private/individual accident insurance, so if they get into an accident, they will have to use the available healthcare system, which is expensive and ineffective. According to most of the KIs, the most essential requirement is to ensure better healthcare facilities for small-scale farmers to be protected from loss of work (economic loss). Also, the poor economic conditions of small-scale farmers demand that they should be protected through occupational risk schemes as they conduct their operations under adverse working conditions and use heavy machinery. Thus, in the present context, becoming a member of the NSSF benefits small-scale farmers. This is very much required, considering the risks and vulnerabilities that affect their livelihoods.



4.5. CONTRIBUTION OF SMALL-SCALE FARMERS TO THE SOCIAL SECURITY SCHEMES

This section presents respondents' self-assessed ability to contribute to social security schemes. We present the findings organized by key research areas of interest under each area. It is also supplemented by the key informants' opinions gathered through interviews.



Income and Expense position and ability to contribute to social security fund

The comparison between the average monthly income and expense of the target small-scale farmers' households reveals that close to two-fifths of the households (37.8 percent) earn USD 100 to USD 200 monthly on average, whereas 42.7 percent of the households' monthly average spending ranges between the same amount. At a higher level of average monthly income, such as USD 301 to USD 400 and USD 401 to USD 500, the percentage of the respondents' households incurring expenses was higher than the percentage of the respondents' households earning income. At the top level, such as USD 501 and above, while 5.0 percent of the households earned an average monthly income, the average monthly expense of 2.6 percent of households falls within that range. Finally, at the bottom level, such as

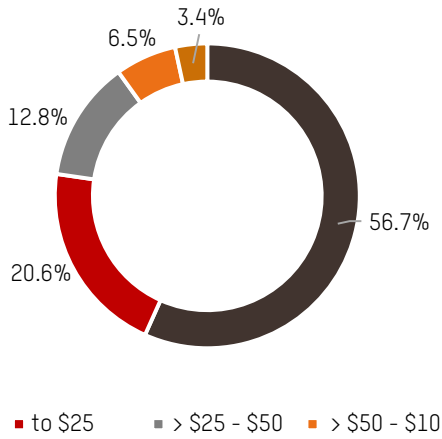
less than USD 100, the percentage of the respondents' households incurring expenses was smaller (22.1 percent) than that of the respondents' households earning income (24.2 percent). This is found to be reversed for the case of USD 100 to USD 200 (Table 4.13).

Table 4.13: Comparison of Monthly Income and Expense of Households

Households	USD					
	<100	100 - 200	201 - 300	301 - 400	401 - 500	501 & above
% of households' average monthly income	24.2%	37.8%	22.9%	7.6%	2.6%	5.0%
% of households' average monthly expense	22.1%	42.7%	18.2%	10.7%	3.7%	2.6%

Based on the average monthly income and expense, it is revealed from the survey that more than half (56.7 percent) of the sample small-scale farmers do not have monthly savings. While just above one-fifth (20.6 percent) of the households on average save up to USD 25, the average monthly savings of 12.8 percent of the respondents was more than USD 25 to USD 50. On average, a smaller percentage of households had more savings; 6.5 percent of respondents had more than USD 50 to USD 100 savings, followed by 3.4 percent saving more than USD 100 monthly (Figure 4.14). Thus, the findings show that the majority of the surveyed respondents do not have a surplus of income over their monthly expenses to save for their future security and, in another way, to contribute to the NSSF membership.

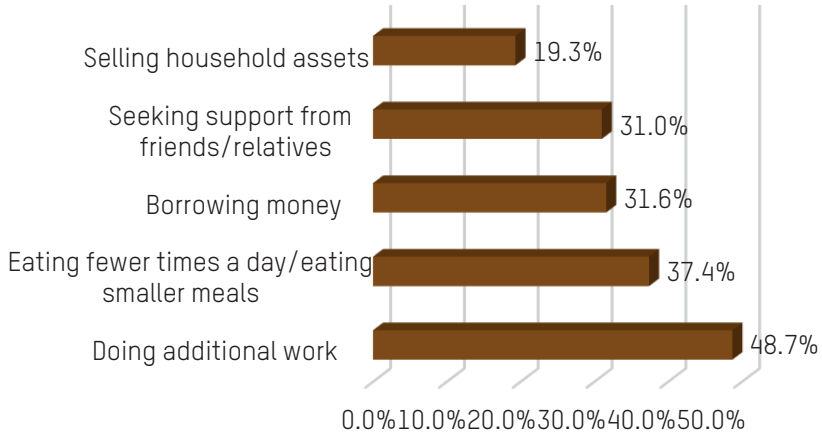
Figure 4.14: Average Monthly Savings of Households



The study also explored the strategies adopted by households having monthly expenses above the income. It was revealed that nearly half (48.7 percent) of the surveyed respondents took up additional work during their critical time. It is important to note that more than one-third (37.4 percent) of

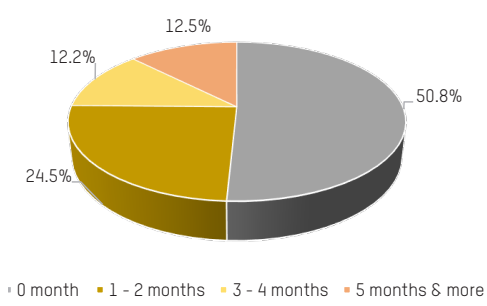
the surveyed small-scale farmers ate fewer times a day and/or ate smaller meals, followed by 31.6 percent borrowing money to manage their household expenses. Also, 31.0 percent of the surveyed small-scale farmers sought support from their friends/relatives, and the remaining around one-fifth (19.3 percent) sold their households' assets to cover the higher expenses over the income (Figure 4.15).

Figure 4.15: Strategies of Managing Households with a Higher Expense than Income



Among small-scale farmers surveyed, nearly half (49.2 percent) experienced not having enough food during some months. While nearly a quarter (24.5 percent) of them, on average, suffered without having enough food for one to two months in a year, 12.5 percent of respondents each experienced not having sufficient food for three to four months, and five months and above in a year (Figure 4.16).

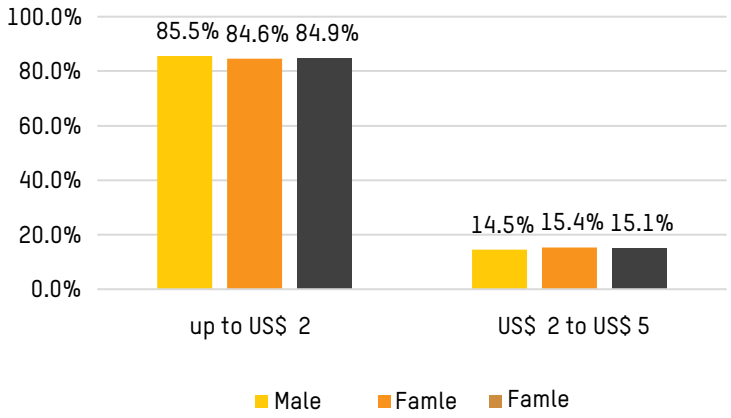
Figure 4.16: Number of months in a Year Households faced Food Shortage



Concerning the monthly contribution to the social security fund, based on the current income and expenses, Figure 4.17 reveals that most of the surveyed small-scale farmers (84.9 percent) opted to pay up to USD 2 per month. Also, a slightly higher percentage of male farmers (85.5 percent) have relatively done so as compared to their female counterparts (84.6 percent). This is followed by 15.1 percent of the respondents who have chosen to give more than USD 2 to less than USD 5. Interestingly, none of the surveyed small-scale farmers have preferred to contribute more than USD 5 per month and more.

The KIs expressed different opinions on the capacity of small-scale farmers to contribute to the social security fund. Some of the KIs felt that as the daily income of small-scale farmers could only support their basic needs, it would be difficult for them to pay the NSSF. As such, the government should contribute in favor of them. Further, there was no consensus among the KIs on the amount of contribution. According to a few KIs at the sub-national level, small-scale farmers can contribute 2,000 riels to 8,000 riels monthly (USD 0.50 to USD 2). For the national level KIs, a maximum contributing amount of 4,000 riel to 8,000 riel (USD 1 to USD 2) per month would be a better option for them. However, as during the loss of agricultural products, it would not be possible for small-scale farmers to contribute to the NSSF, regular membership fees would become a challenge for them.

Figure 4.17: Capacity of Monthly Contribution to Social Security Fund



BOX 4.1: Capacity of Small-Scale Farmers to Contribute to the NSSF

"Living in a poor economic condition, a small-scale farmer's daily income only covers the basic needs of his/her family. In addition to the poor economic condition, the volatility of his/her income flows remain as a challenge to contribute to the NSSF. Therefore, the contribution by small-scale farmers to the NSSF should be as minimal as possible. Further, in the light of the potentiality of several risks and vulnerabilities on the farm income, their contribution to the NSSF should be made flexible."

Key Informant

Further, concerning the timing of the contribution to the NSSF, more than three-quarters of the surveyed small-scale farmers (84.4 percent; male: 84.6 percent; female: 84.3 percent) have stated that they would prefer to contribute monthly, followed by less than one-tenth (7.0 percent) who choose quarterly, 3.4 percent consider half-yearly, and the remaining 5.2 percent of them opt for a yearly contribution. Also, considering gender into account, there was hardly any difference of opinions between the female and male respondents (Table 4.14). Thus, a majority of both the female and male small-scale farmers preferred monthly contributions to the NSSF in normal conditions without having the loss of income in case of several adverse conditions.

Table 4.14: **Responses on Contribution Timing to the NSSF**

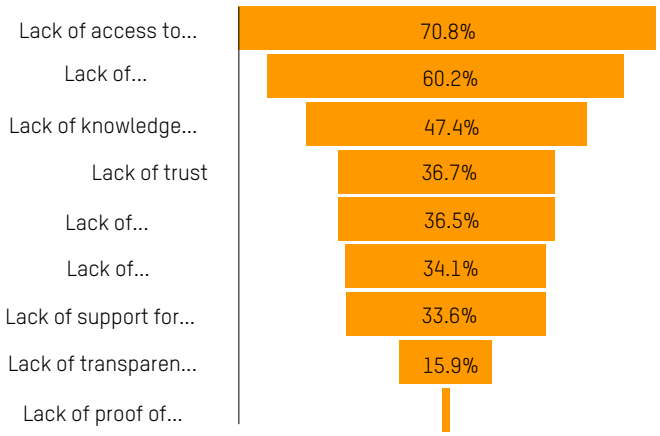
Category of respondents	Responses on contribution timing to the NSSF			
	Monthly	Quarterly	Half-yearly	Yearly
Female	84.3%	7.1%	3.8%	4.8%
Male	84.6%	6.8%	2.6%	6.0%
All	84.4%	7.0%	3.4%	5.2%



Main barriers to participate, and challenges to contribute to the NSSF

The surveyed small-scale farmers perceived the presence of several constraining factors for which it may be difficult for them to participate in the NSSF. For instance, seven among ten surveyed participants (70.8 percent; female: 76.4 percent) have said that the lack of access to accurate information about the NSSF is one of the main barriers. This is followed by more than half of the respondents who thought the barrier to be the lack of understanding of the administrative process regarding membership registration (60.2 percent; male: 50.4 percent; female: 64.4 percent), lack of knowledge about the benefits of schemes (47.4 percent; male: 48.7 percent; female: 46.8 percent), lack of trust (36.7 percent), lack of understanding about the benefits claiming procedure (36.5 percent), and lack of understanding of the administrative process regarding monetary contributions (34.1percent). As revealed in Figure 4.18, other barriers, as selected by the sample respondents, are the lack of support for registration (33.6 percent), lack of transparency and accountability in the system (15.9 percent), and lack of proof of identity (1.3 percent).

Figure 4.18: **Barriers to Participate in the NSSF**



The findings show that the top three barriers to participating in the NSSF for both male and female small-scale farmers include:

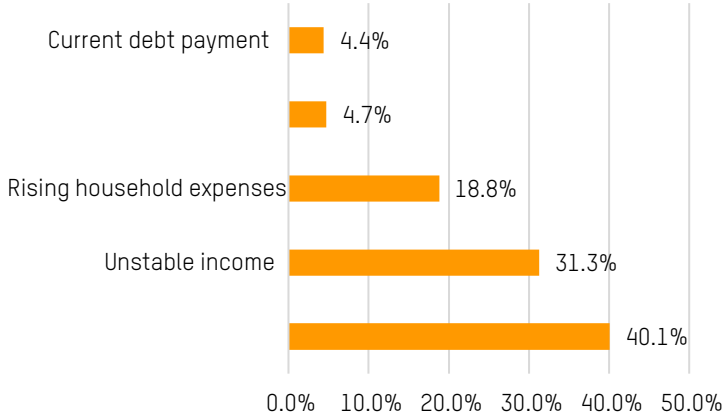
1. Lack of access to accurate information about the NSSF
2. Lack of understanding of the administrative process regarding membership registration
3. Lack of knowledge about the benefits of schemes

In light of these responses, dissemination of information relating to several provisions of the NSSF among small-scale farmers is essential.

According to most of the KIs, the barriers for small-scale farmers to participate and access the NSSF include a lack of awareness and limited knowledge about social insurance schemes and poor understanding of the membership provisions, including access and the benefits associated with schemes. To overcome these barriers, disseminating information among the target group through local authorities and agricultural cooperatives/ associations was felt necessary by the KIs.

Concerning the likely challenges about the contribution of small-scale farmers to the NSSF, as revealed in Figure 4.19, two-fifths of the surveyed respondents (40.1 percent) have said to have low income. Also, close to one-third of the total sample respondents (31.3 percent) have mentioned that their unstable income is a likely challenge, followed by rising household expenses (18.8 percent) and family financial pressure (4.7 percent), as well as current debt payment (4.4 percent).

Figure 4.19: **Key Challenges to Contribute to the NSSF**



So far, the views of KIs are concerned; the current challenges for small-scale farmers to contribute to the NSSF include unstable family incomes, existing debts, limited opportunities for earnings, and a rising trend of family expenses. Also, the challenge could be if the payment of membership fees is beyond their capacity to contribute. Contributing to the NSSF regularly and timely, especially during the lean season and/or at the time of loss of agricultural products, is challenging for small-scale farmers. To overcome these challenges, the KIs suggested that the government provide adequate support by initially sharing a part of their membership contribution fee.

Support in accessing the NSSF, and enabling factors motivating the small-scale farmers to participate in the NSSF

Based on the likely challenges to contributing to the NSSF by small-scale farmers; first, more than two-thirds (68.5 percent) of the respondents have suggested the government make a provision in law to exempt small-scale farmers from contributing membership fees, followed by 64.1 percent of them have opted to make provision in law to include small-scale farmers to access the NSSF. In addition, more than one-third (36.5 percent) of the respondents suggested changing the law to include their family members to avail of healthcare benefits, and just above one-fifth (20.6 percent) of them opted to share a part of the contribution amount by the government.

Concerning the support from the government to small-scale farmers in terms of their contributions to the NSSF, the KIs at the sub-national level suggested that the government should amend the law to include small-scale farmers and their family members to access the NSSF, make at least 50 percent of contribution to their membership fees to the NSSF, and delay their contributory payment to the NSSF in difficult/critical times, such as natural disasters and similar other conditions of economic distress such as the COVID-19 pandemic.

Regarding the significant gaps in the existing policies and legal frameworks of the NSSF concerning small-scale farmers, most of the KIs expressed that so far as their knowledge goes, there is limited/no coverage of the small-scale farmers in the Law on Social Security Schemes. Thus, the current policies and legal frameworks need specific provisions for small-scale farmers to access the NSSF. As such, the provision in law should include small-scale farmers who access the NSSF, including their family members, to avail themselves of healthcare benefits.

About the enabling factors that motivate small-scale farmers to participate in the NSSF, awareness-raising campaigns should be conducted to disseminate information about the schemes, their importance, the registration process, and others. It is believed that small-scale farmers would access quality medical services and fair treatment through professionalism in service delivery. Enhancing public health services would motivate small-scale farmers to join the NSSF. In this regard, an effective complaint mechanism should be developed to ensure the quality of the services. In addition, creating an environment for small-scale farmers to work closely with local authorities, building a network among farmers, and realizing the benefits of the schemes on time would be other supporting factors to encourage small-scale farmers to participate in the NSSF.



05 CONCLUSIONS AND RECOMMENDATIONS

The present study covers the broad spectrum of contributory capacity of small-scale farmers to the NSSF through the lens of research questions in the areas of the target groups' assessment of the potential risks and vulnerabilities being faced by them impacting their farm income, their understanding of NSSF and accessibility to social protection schemes, needs and social protection priorities of small-scale farmers and their contribution to the social security schemes. This section presents the main findings of the study along with its conclusions and recommendations.

5.1. CONCLUSIONS

The findings of this comprehensive study show the self-assessed potential risks and vulnerabilities of small-scale farmers on their farm income. In all cases, such as the climate change and environmental vulnerabilities, physical vulnerability, social vulnerability, and economic vulnerability, the average score (mean value) of each of them was less than 5.5, indicating a low to moderate level of their potential impact on the farm income of small-scale farmers. Assessment of each factor under the risks and vulnerabilities source shows that the pest and disease outbreaks (climate changes and environmental vulnerabilities; mean score 6.2), high volatility in market prices of agricultural products (economic vulnerability; mean score 6.2), low yields/crop failures (economic vulnerability; mean score 5.6), falling crop price (economic vulnerability; mean score 5.6), and high livestock mortality (economic vulnerability; mean score 5.5) have moderate to significant level of potential impact on the farm income and wellbeing of small-scale farmers.

Although around 75.0 percent of the surveyed small-scale farmers were aware of the NSSF in Cambodia, they were not at all knowledgeable or slightly knowledgeable about the various provisions of the NSSF. The highest, 208 surveyed small-scale farmers among 287, did not know the benefits-claiming procedure, followed by a majority of those who needed to be more knowledgeable about contributing to the NSSF (193 respondents). The overall mean score of 1.6 clearly shows that respondents were not knowledgeable or had deficient knowledge about the NSSF. Above 94.0 percent of the respondents felt that acquiring information about the NSSF and current schemes is essential for them. Among the various ways of sharing information about the NSSF, 80.7 percent of the respondents (male: 76.1 percent; female: 82.8 percent) preferred local-level meetings by the village authorities.

Most of the surveyed small-scale farmers (335 farmers) in the target areas were more or less aware of several social protection schemes and had accessed the benefits (120 farmers). Two-thirds (66.6 percent) of them (223 farmers) were aware of HEFs for families with ID cards/priority cards, and 49.2 percent (59 farmers) were currently accessing them. In addition, 25.8 percent of them (31 farmers) also availed the cash transfer for near-poor families impacted by inflationary pressure. It was revealed that 79.3 percent of the respondents agreed on the presence of risks at work and felt that exposure to wastage and chemicals was the most significant. In order to respond to the loss of farm income due to several adverse conditions, more than two-fifths of the sample small-scale farmers have mentioned

using their savings (46.4 percent) followed by borrowing money from others (41.2 percent), depending upon the income of their spouse/family (30.5 percent), and selling assets (26.8 percent). Against 44.6 percent of female respondents, 33.3 percent of male respondents preferred to borrow money from others in the future to meet their long-term sickness/injury or disability, including natural disasters. Further, 53.6 percent of the female small-scale farmers have considered using their savings, while 41.6 percent thought of using the income of their spouse/family for their maternity, hospitalization, and post-delivery expenses. Although planning to secure old-age livelihood is a concern for small-scale farmers, most would like to choose more than one provision. While 61.5 percent of small-scale farmers (male: 63.3 percent; female: 60.7 percent) have thought of using their savings, 37.8 percent considered taking support from their family/children. With several potential risks, most small-scale farmers (60.2 percent; female: 62.5 percent) have viewed the healthcare scheme as their most preferred one, followed by nearly one-third (32.3 percent; female: 33.7 percent) of them who have chosen the pension scheme. Also, as most of the KIs argued, to ensure better healthcare facilities for small-scale farmers, they should be protected from loss of work (economic loss). As such, the priority should be the healthcare scheme followed by the pension scheme to protect their future livelihood.

The comparison between the average monthly income and expense of households of small-scale farmers reveals that 62.0 percent of the sample respondents have an income of up to USD 200, whereas 64.8 percent of respondents spent up to that amount on an average in a month. Based on the average monthly income and expense, 56.7 percent of the sample small-scale farmers do not have any monthly savings, while 20.6 percent of the households, on average, save up to USD 25. To manage household expenses above income, 48.7 percent of the surveyed respondents took up additional work, whereas 37.4 percent ate fewer times a day and/or ate smaller meals, followed by 31.6 percent borrowing money. 49.2 percent of sample small-scale farmers experienced not having enough food during some months in a year. On average, nearly a quarter of them (24.5 percent) suffered without having enough food for one to two months in a year. Based on the current income and expense, 84.9 percent of the surveyed small-scale farmers (female: 84.6 percent) preferred to contribute up to USD 2 per month. Further, concerning the timing of the contribution to the NSSF, more than three-quarters of the surveyed small-scale farmers (84.4 percent; male: 84.6 percent; female: 84.3 percent) have stated that they would prefer to contribute monthly.

The top three barriers to participating in the NSSF as perceived by the surveyed small-scale farmers include lack of access to accurate information about the NSSF (70.8 percent; female: 76.4 percent), lack of understanding of the administrative process regarding membership registration (60.2 percent; female: 64.4 percent), and lack of knowledge about the benefits of schemes (47.4 percent; female: 46.8 percent). The key challenges, as perceived by small-scale farmers, that might hinder regular contributions to the NSSF include low income (40.1 percent), unstable income (31.3 percent), and rising household expenses (18.8 percent). In light of the challenges, 68.5 percent of the respondents have suggested the government make provision in law to exempt small-scale farmers from contributing membership fees, followed by 64.1 percent of them have opted to make provision in law to include small-scale farmers to access the NSSF. The other suggestions include changing the law to include their family members to avail of healthcare benefits (36.5 percent) and sharing a part of the contribution amount by the government (20.6 percent).



5.2. RECOMMENDATIONS

Based on these findings, the contributory capacity study intends to provide the following recommendations:

FOR THE ROYAL GOVERNMENT OF CAMBODIA

- **Amendments to the law on Social Security Schemes 2019 to include small-scale farmers to access the NSSF:** To effectively cover small-scale farmers into the current social protection system and facilitate their access to the NSSF, the government needs to enact provisions and amendments in the existing law on Social Security Schemes 2019. Although the scope of the law covers the self-employed, it does not specifically mention the case of small-scale farmers. To include small-scale farmers under the purview of the law, their economic activities, including income levels, should be considered. In addition, necessary provisions that enable family members of small-scale farmers to benefit from healthcare benefits should be made.
- **Adopt appropriate funding mechanisms/ and contributory payments to tackle affordability challenges:** Considering small-scale farmers' unstable and low-income levels, at the entry level, the government should consider subsidizing a part of their contribution and enable gradual scale-up of contributions. Further, from a humanitarian point of view, during adverse

shocks and extreme weather events, to overcome the vulnerabilities, the government should consider fully subsidizing the contributions to the NSSF to enable small-scale farmers to maintain their livelihoods.

- **Adopt flexible contributory payments:** To respond to the adverse challenges that small-scale farmers face in agricultural operations and encourage adherence to the NSSF, the government should consider adopting adjustable levels and timing of contributions to the NSSF.

- **Adequacy of the benefits:** To ensure attractiveness and adherence, the government must consider adopting life cycle benefits and incentives for small-scale farmers, starting with health and maternity benefits and occupational risks and gradually introducing new benefits and services. In addition, public transportation facilities should be made available to ensure that needy small-scale farmers living in remote areas avail timely healthcare services. Without public transport provision, the government should reimburse the transportation costs the service seekers bear to visit hospitals/healthcare centres.

- **Incorporate specific gender-responsive dimensions into the NSSF extension mechanisms:** Considering the additional risks that female small-scale farmers bear during reproductive age, including maternity, post-delivery, childcare, and reproductive health, the NSSF laws and extension provisions for farmers must strive to be gender-responsive. The government should consider different approaches, such as subsidizing the contribution, providing maternity protection benefits, adopting flexible payment modalities, and ensuring flexible administrative requirements by collecting gender-disaggregated data.

- **Harness digital and mobile technology to facilitate access to social protection:** Using mobile technology will significantly enhance social security delivery to support small-scale farmers. The government should consider using digital means to promote the CSOs to extend social security coverage in terms of membership registration, contribution payment, benefits claims, and others for the efficient and effective delivery of services.

- **Ensure easier and more accessible registration:** Considering the widespread presence of small-scale farmers in the country, their registration process to the NSSF should be made at the commune level. This provision would make their registration more accessible and hassle-free. In addition, adequate provision should be made at the commune level so that small-scale farmers can get updated information, including lodge complaints and/or provide feedback.

- **Conduct a nationwide larger-scale study:** The NSSF should consider conducting a national survey of the contributory capacity of small-scale farmers, considering the level of risks and vulnerabilities they face in different regions.

- **Monitor and evaluate the performance of service providers:** Ensuring quality service requires monitoring and periodic evaluation of the NSSF partners' performance, such as the service providers, like hospitals, healthcare centres, and others. This would also build trust among small-scale farmers of the service deliveries.

FOR RGC, CSOS AND NGOS

- **Disseminate information to build stronger awareness, understanding, and knowledge among small-scale farmers about several provisions of the NSSF:** Information on social security provisions, regulations, schemes, benefits, eligibility conditions, membership contribution, administrative procedures, as well as members' rights and obligations should be widely disseminated among small-scale farmers even though they are currently not able to access the NSSF. This should be done through local-level meetings with the village authorities. In addition, the other ways to disseminate the information effectively among small-scale farmers are through village-level organizations, such as agricultural cooperatives/associations, including self-help groups (SHGs).

- **Capitalize the services of agricultural cooperatives and self-help groups:** Several physical and economic risks and vulnerabilities faced by small-scale farmers can be addressed jointly by utilizing agricultural cooperatives/associations and self-help groups at the village level. In addition, these village-level organizations can help build awareness among the farmers about the need and membership benefits of social protection, including shock-responsive social protection. As an intermediary between the farmers and the government, they can support the farmers' collective registration to the NSSF by facilitating enrolment.

To sum up, the findings of the study reveal that based on small-scale farmers' low-level and unstable income, including the presence of several risks and vulnerabilities affecting their farm income and affordability barriers to contribute membership fees to the NSSF, the extension of social security coverage to them needs to be flexible and affordable.

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