

The Role of Social Protection in Tackling Food Insecurity and Under-nutrition in Indonesia

A Gendered Approach

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List of acronyms and definition of terms used

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
<i>Bappeda</i>	<i>Badan Perencana Pembangunan Daerah</i> (Regional Development Planning Agency)
<i>Bappenas</i>	<i>Badan Perencanaan Pembangunan Nasional</i> (National Development Planning Board)
BPS	<i>Badan Pusat Statistik Republik Indonesia</i> (Statistics Indonesia)
CCT	Conditional Cash Transfer
CPRC	Chronic Poverty Research Centre
CWS	Church World Service
DHS	Demographic and Health Survey
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> (German International Cooperation)
IFAD	International Fund for Agricultural Development
INGO	International NGO
MDG	Millennium Development Goal
MOA	Ministry of Agriculture
MOH	Ministry of Health
MoWECP	Ministry of Women Empowerment and Child Protection
NGO	Non-governmental Organisation
NICE	Nutrition Improvement through Community Empowerment
NIHRD	National Institute of Health Research and Development
NTT	Nusa Tenggara Timur province
PEKKA	<i>Pemberdayaan Perempuan Kepala Keluarga</i> (Programme for Women-headed Households in Indonesia)
PKH	<i>Program Keluarga Harapan</i> (Family Hope Programme)
PNPM Rural	National Programme for Community Empowerment in Rural Areas
PODES	<i>Potensi Desa</i> (Village Census)
PPP	Purchasing Power Parity
SSP	<i>Sanggar Suara Perempuan</i> (Women Voice Center)
SUSENAS	<i>Survey Sosial Ekonomi Nasional</i> (National Socioeconomic Survey)
TNP2K	<i>Tim Nasional Percepatan Penanggulangan Kemiskinan</i> (National Team for Accelerating Poverty Reduction)
TTS	Timor Tengah Selatan district
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organization
WRI	Women Research Institute

Executive summary

Social protection continues to be an important policy priority in Indonesia to address persistent poverty and vulnerability. However, very little attention has been paid to date to its role in tackling gendered experiences of poverty. It is often assumed that social protection is already addressing gender because social transfers target women or female-headed households. However, pre-existing intra-household and community dynamics mean that the role that gender relations play in social protection effectiveness is more complex. This affects not only the type of risk tackled but also the impacts of any intervention. Moreover, gender norms and roles may shape the choice of social protection modality or awareness-raising approach, as well as public buy-in.

This report analyses the effectiveness of the Indonesian government's social protection system related to food insecurity and under-nutrition. As tackling the gendered manifestations of risk and vulnerability has positive spill-over effects on general programme effectiveness, it also assesses the extent to which existing policies and programmes are tackling the gender dimensions of food insecurity and malnutrition. The aim is to understand:

- The gendered patterning and underlying causes of household- and individual-level vulnerability to food insecurity and under-nutrition;
- The coping strategies households and different family members employ to overcome these vulnerabilities;
- The effects of social protection programming and complementary measures on food security and poverty/vulnerability reduction at community, household and intra-household levels, with particular attention to gender dimensions; and
- Using a political economy analysis, the implications for future policy and programme design to improve social protection effectiveness.

The report draws on a desk review; interviews with policymakers, donors, international agencies, civil society and researchers; and focus group discussions (FGDs) and in-depth interviews at the sub-national level, using case studies from North Sumatra and Nusa Tenggara Timur (NTT).

Food insecurity and under-nutrition in Indonesia

Indonesia's poverty and food security rates have been improving since the country's recovery from the 1997 economic crisis. Poverty rates fell from 23.4% in 1999 to 15.4% in 2008, and the 2010 Global Hunger Index shows that Indonesia reduced its score from 19.5 in 1990 to 13.2 in 2010 (von Grebmer et al., 2010). Despite significant progress, however, approximately 15% of the population still lives in poverty and pockets of severe food insecurity and malnutrition remain. Data from 2004-2006 show that 16% of the population is undernourished (ibid) and the number of the 'near poor' – those who will become poor if they lose a single month's income – is around 115 million people, out of a population of 220 million.

Food security and malnutrition rates remain serious for a huge number of women and children in particular. A total of 40% of pregnant and lactating women suffer from iron deficiency anaemia, which is also responsible for 25% of maternal deaths (ADB, 2009). The national rate of stunting for under-fives remains at 35.6% (2010). Malnutrition and food insecurity vary substantially by location: 17 provinces were reported as having a stunting prevalence higher than the average, including North Sumatra and NTT, both of which had 'very high' prevalence among under fives (43.1% in 2007 and 42.3% in 2010 in North Sumatra and 46.8% and 58.4%, respectively, in NTT).

The causes of malnutrition and food insecurity in Indonesia are numerous, although the issue of food availability and food prices continues to dominate policy actions. Other factors that are important include mothers' educational level; women's decision-making power and control over resources within the household; income opportunities and socio-cultural norms. Breastfeeding,

which is crucial for children's nutritional and health status, continues to be limited: 45.4% are breastfed 0-1 months, 38.3% 2-3 months and 31% 4-5 months. Access to safe drinking water and sanitation are also critical factors of nutrition. Based on National Socioeconomic Survey (SUSENAS) data, 21.1% of households in the country did not have access to improved drinking water nationally in 2007 (BPS, 2007).

Government responses

Most government programmes to address food insecurity and malnutrition at the local level are run from the central level. Two key social protection programmes include the national *Raskin* rice subsidy programme and the smaller Family Hope Programme (PKH) conditional cash transfer (CCT). There are also programmes run by the Ministry of Health (MOH) and the Ministry of Agriculture (MOA) to support food security and nutrition, both directly and indirectly. These include nutritional support, awareness raising and production and infrastructure development programmes. Other important, more indirect, efforts include increasing the use of health services through Health Insurance for the Poor (*Jamkesmas*) and PNPM Rural.

Responses to the social risks and vulnerabilities facing households in the context of food insecurity and malnutrition have generally been weak, however – with the greatest focus on simply addressing income poverty and food availability. Issues around gender inequality in particular have been weakly integrated into food security and social protection programmes, despite significant progress in terms of getting gender onto the policy agenda and into legal frameworks. Mainstreaming gender into policy has been relatively successful, especially since the reform era, but turning policies into programme implementation has been a key challenge. In this, Indonesia has been only partially successfully in a few sectors (e.g. health and education).

Government interests also play an important role in determining social protection objectives. It is well recognised in Indonesia that the *Raskin* programme faces challenges in its design and implementation. However, its politicisation makes it difficult to change it without risking popular protest. A key factor in this debate in Indonesia is the sensitivity of the government to any rice price increases and any subsequent change in the proportion of people living below the national poverty line. This is all the more sensitive in the context of the government's resistance to publically admitting the extent of malnutrition in the country, as a country striving towards middle-income status and as part of the G20. While there has been a concerted effort by the president and development partners to address poverty more strategically, for instance through the National Team for Accelerating Poverty Reduction (TNP2K), gender has not been a priority in this regard.

Limited institutional capacity is another key factor explaining the relative lack of attention to gender inequality in social protection and food security programmes in the country. A unified database is being developed to try to better coordinate social protection interventions at the national level. However, with over 800 social protection programmes and numerous ministries implementing interventions, the institutional coordination challenges are serious. Moreover, despite progress in gender mainstreaming at the national policy level, the system remains compartmentalised, lacks a strategic vision and demands no accountability in terms of implementation. Linkages between gender, social protection and food security have been limited both conceptually and practically: departments responsible for nutrition are situated in MOH and have little coordination with the Ministry of Women Empowerment and Child Protection (MoWECP) and MOA. Budget fluctuations and limited funds for gender mainstreaming at the decentralised level make it difficult to commit to a strategic approach to strengthening the tools available to mainstream gender more effectively.

Conclusions and policy recommendations

In sum, much of the debate around poverty in Indonesia has focused primarily on income poverty, making it difficult to understand, recognise and address the multiple dimensions of poverty and its causes – including social risks and vulnerabilities such as gender inequality, spatial disadvantages and life-cycle risks. Social protection policy and programming in particular have seen limited strategic consideration of food security, despite significant investment in one of the main national

social protection programmes – *Raskin* – a food subsidy programme. Given the budgetary commitment to social protection in Indonesia (1% of gross domestic product (GDP)), opportunities to enhance the effectiveness of programmes by integrating a gender perspective should be seen as an urgent priority. Key policy recommendations include the following:

- Given pockets of severe malnutrition as a result of spatial, social, cultural, political and economic inequalities, a more balanced model of economic growth, beyond a focus on income poverty and paying attention to issues of equity and inclusiveness, is urgently needed.
- Food insecurity and nutritional disparities still affect millions of Indonesian adults, especially women, as well as children, and need to be acknowledged explicitly and integrated into national social protection strategies and related programming to reduce poverty. Food insecurity and malnutrition need to be recognised as issues related not only to availability of food but also, importantly, to food access and utilisation. A more explicit recognition of gender inequalities across sectors needs to be better integrated into this approach. Growing regional and gender disparities in employment and education, as well as in nutrition, need to be targeted by specific, sustainable and adequately funded policies and programmes.
- Current social protection provision which does address food security – e.g. *Raskin* and CCTs – needs to be more efficient to achieve these goals. It also needs to take a gendered approach, beyond simply targeting women and/or reinforcing traditional gender roles and responsibilities. Enhancing the efficiency of the *Raskin* programme to better tackle gender and life-cycle risks, for instance, could entail targeting pregnant and nursing women and young children who are particularly at risk of malnutrition, supplementing *Raskin* rice with additional nutrition such as vitamin A or fortifying the rice with nutrients. Also urgent are complementary programmes to enhance women’s access to and control over productive assets, to provide equal opportunities and pay in the labour market and to support women’s empowerment at the household and community level.
- As malnutrition is a multifaceted problem, and as income growth is not the major determinant of improved nutrition, relevant policies and programmes need to more effectively integrate strategies to tackle other crucial factors. These include parental education (both mothers and fathers) and behavioural change support; awareness-raising activities for schools and communities; improved sanitation and hygiene measures; food fortification; and gender empowerment measures. Particular attention needs to be paid to stunting, given its chronic nature, its lifelong impact and its intergenerational transfer.
- The multiple institutional actors involved in social protection and nutrition/food security, including actors involved in the rollout of gender equality legislation, need strong leadership and improved coordination. TNP2K should strengthen gender in its approach as a priority.
- There is an urgent need to strengthen monitoring and evaluation systems that collect and analyse sex-disaggregated data to feed back into national and sub-national programme policy and design.
- MoWECP needs to continue to provide financial and technical resources to the district level to support existing gender mainstreaming mechanisms, especially in terms of building capacity among gender focal points to strengthen linkages between gender, food security and poverty reduction programmes. More specifically, gender mainstreaming tools implemented in key sectors such as education and health should be applied to the social protection sector.

1. Introduction

1.1 Background

Social protection is increasingly recognised as a key policy tool to help achieve the Millennium Development Goals (MDGs), for instance to reduce income poverty and hunger and improve education and health indicators. Underpinned by rigorous evaluation evidence (at least in middle-income countries), it is seen as a critical mechanism to cushion the poor and newly poor from the worst effects of global crises and as a core human right.

To date, however, there has been very little attention to social protection's role in tackling the gendered experiences of poverty and vulnerability. This is despite a renewed interest in how addressing gender inequalities can achieve broader development objectives, as highlighted by the World Bank's 'Gender Equality Makes Economic Sense'. Many transfer and public works programmes target women, a focus which stems largely from evidence that women are more likely to invest additional income in family well-being as well as from a concern to promote greater representation of women in development programmes. It is therefore often assumed that gender is already being addressed in social protection initiatives. However, pre-existing intra-household and community gender dynamics mean that the role gender relations play in social protection is likely to be much more complex, affecting not only the type of risk tackled but also the programme impacts. Moreover, gender norms and roles may shape the choice of social protection modality, the awareness-raising approach and the amount of public buy-in.

In Indonesia, social protection emerged as an important policy response to the 1997 financial crisis, to buffer poor and vulnerable households' income and consumption from the adverse impacts of the shock. The Indonesian economy has recovered over the past 15 years, with poverty and food insecurity rates declining again after a spike during the crisis. Poverty rates fell from 23.4% in 1999 to 12.49% in 2011, and Indonesia reduced its Global Hunger Index score from 19.5 in 1990 to 13.2 in 2010 (von Grebmer et al., 2010). Indonesia is now on track to meet the national hunger targets of MDG 1 (*Bappenas*, 2010).

However, approximately 15% of the population still lives in poverty, and pockets of severe food insecurity and malnutrition remain. Data from 2004-2006 show that 16% of the population is undernourished (von Grebmer et al., 2010), and the number of the 'near poor' – those who will become poor if they lose a single month's income – is around 115 million, out of a population of 220 million. High levels of vulnerability to food insecurity are influenced strongly by gender, age and spatial and socio-cultural characteristics. Around 40% of pregnant and lactating women nationally suffer iron deficiency anaemia, which is responsible for 25% of maternal deaths (ADB, 2009). Approximately one in three children under five are stunted (NIHRD, 2010).

Food security and nutrition policies in Indonesia are mainly the responsibility of the Ministry of Agriculture (MOA) and the Ministry of Health (MOH). One of the objectives of the MOA Strategic Plan 2010-2014 is to develop nutrition and food security and diversification. The MOH Strategic Plan 2010-2014 includes programming on nutrition and maternal and child health (Table 1).

Table 1: Indicators in the MOH Strategic Plan 2010-2014

No.	Indicators	Target 2014
1.	Pregnant mother obtaining iron	85%
2.	Exclusive breastfeeding for children aged 0-6 months	80%
3.	Vitamin A for children aged 6-59 months	85%
4.	Children under five treated for severe under-nutrition	100%
5.	Children under five who are weighed	100%
6.	Iodised salt consumption among households	90%
7.	Districts/cities conducting surveillance of nutrition	100%
8.	Complementary food ('breastfeeding plus') buffer stock	100%

Source: MOH (2010).

Social protection policy and programming have continued to play an important role in the country's overall poverty reduction approach since the 1997 crisis. However, they have focused less and less on addressing food security and nutrition, despite a significant amount of resources going towards the *Raskin* (Rice for Poor Households) food subsidy programme (Rp 12.62 trillion in 2010). The package of social protection implemented in 1997 has undergone a number of modifications over the past decade. New programmes added include an unconditional cash transfer in 2005 (reaching 18.5 million households in 2009), as a response to the elimination of the fuel subsidy, as well as smaller-scale programmes such as a conditional cash transfer (CCT) (which benefited around 800,000 households in 2010). Against the backdrop of more than 800 social protection programmes at national and sub-national levels, there has also been a push to reform the legal basis of social protection (Law 40/2004 into Law 11/2009), although limitations in implementation remain.

Progress has also been made on the provision of progressive gender equality policies, laws and tools in Indonesia, in recognition of the role that gender inequality plays in perpetuating poverty and vulnerability. A Presidential Decree in 2000 required all government bodies to mainstream gender in their policies, programmes and budgets to eliminate gender discrimination. It also directed all ministries and agencies at national and local levels to adopt gender mainstreaming strategies in planning, implementation and monitoring of development policies and programmes. However, despite progress and attention in sectors such as health and education, other aspects of gender equality (such as empowerment and economic activity) are far from seeing similar success (see Figure 1). Meanwhile, given the significance of social protection programming with regard to the poverty reduction agenda in Indonesia (social protection spending is around 1% of gross domestic product (GDP)), limited investment in integrating gender within policy and programme design and implementation is cause for concern.

Figure 1: Gender Equity Index in Indonesia, 2009



Source: Social Watch (2010).

In light of this disjuncture, this report discusses the relative efficacy of Indonesia's national social protection system in terms of addressing gendered risks and vulnerabilities related to food insecurity and under-nutrition. The aim is to inform ongoing initiatives to strengthen the system's design and implementation.

1.2 Report overview

The report is structured as follows. Section 2 presents the conceptual framework that guided the research and analysis and Section 3 the research methodology used. Section 4 reviews the literature on the prevalence and patterning of food insecurity and under-nutrition in Indonesia. Section 5 summarises the findings of the primary research into the vulnerabilities of men, women and adolescents with regard to food insecurity and malnutrition in two research sites. Section 6 discusses the availability of programmes to tackle food security and malnutrition at the local level and households' informal coping strategies to address their vulnerabilities. Section 7 reflects on the political economy dynamics which add a further layer of complexity to efforts to ensure effective policy and programme development and implementation in this area. Section 8 concludes and discusses potential policy implications.

2. Conceptual framework: food security and nutrition from a gender perspective

Social protection is commonly defined as encompassing a subset of interventions for the poor – carried out formally by the state (often with donor or international non-governmental organisation (INGO) financing and support) or the private sector, or informally through community or inter- and intra-household support networks. It is increasingly seen as an important approach to reduce vulnerability and chronic poverty, especially in crisis contexts. To date, however, the focus has been more on economic risks and vulnerability – such as income and consumption shocks and stresses. However, social risks – such as gender inequality, social discrimination, unequal distributions of resources and power at the intra-household level and limited citizenship – are often just as important, if not more important, in pushing and keeping households in poverty. Indeed, of the five poverty traps identified by the 2008-9 Chronic Poverty Report, four were non-income measures: insecurity (ranging from insecure environments to conflict and violence); limited citizenship (lack of a meaning political voice); spatial disadvantage (exclusion from politics, markets, resources, etc., as a consequence of geographical remoteness); and social discrimination (which traps people in exploitative relationships of power and patronage) (CPRC, 2008).

Social protection is often characterised as having three main objectives: *protecting* household income and consumption; *preventing* households from falling into or further into poverty; and *promoting* households' real incomes and productivity. A focus on *social equity* in Devereux and Sabates-Wheeler's (2004) transformative social protection framework crucially includes a fourth objective, which emphasises the importance of social inclusion and anti-discrimination.

Food insecurity and malnutrition reflect a complex interplay between economic and social risks and vulnerability. Food security is defined as being 'when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life' (Riely et al., 1999). Food insecurity can be chronic (long term and persistent), cyclical (e.g. at certain times of the year, such as between planting and harvest) or transitory (where a specific shock leads to a food shortage or sudden rise in prices). Overcoming it necessitates not only aggregate food *availability*, but also that households have adequate *access* to food supplies and that the *utilisation* of these is appropriate to meet the specific dietary needs of different individuals (see Box 2). Importantly, factors affecting food security and nutrition at all three levels may be natural, political, economic or social/human in nature. They may be unpredictable shocks or longer-term trends. These latter, such as neo-patrimonialism and market failures, can be as damaging as sudden-onset natural disasters or human conflict. Idiosyncratic risks, such as old age, childhood and motherhood, can represent a significant threat to food security, as can covariant risks (Cromwell and Slater, 2004). Gender inequality cuts across all these levels.

Box 1: Defining food security

Food availability is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through household production, other domestic output, commercial imports or food assistance.

Food access is ensured when households and all individuals within them have adequate resources to obtain appropriate foods for a nutritious diet. Access depends on income available to the household, on the distribution of income within the household and on the price of food.

Food utilisation is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water and adequate sanitation. Effective food utilisation depends in large measure on knowledge within the household of food storage and processing techniques, basic principles of nutrition and proper child care and illness management.

Source: Riely et al. (1999).

In terms of aggregate food availability, recent data (in FAO, 2011) show that, currently, the yield gap between men and women is around 20-30%, mainly because of inequalities in resource use. If women farmers could access and use the same level of resources as men on the land they farm, they would achieve the same yield levels. This would increase agricultural output in developing countries by between 2.5% and 4%. This could reduce the number of undernourished people in the world in the order of 12-17%.

Household access to food is highly dependent on household resources, including assets and labour. By using these resources, a household can acquire food either directly through production or indirectly through exchange and transfer. Resources at the household and community level are highly gendered. Women have less access to and ownership of productive resources, such as land, animals, inputs, technology and credit (FAO, 2011). Inequalities in the labour market mean that women are highly represented in low-skilled, seasonal and low-wage work. Moreover, intra-household power relations and control over income and expenditure affect access to food. A large body of evidence shows that the greater the degree of control women exercise over the family income, the greater the proportion of income spent on food.

Gender also strongly influences the determinants of food utilisation. Nutritional vulnerabilities are affected by access to appropriate micronutrients, safe water, hygiene and sanitation and quality health care services, and also by household and community practices in child care, food hygiene and preparation and environmental health (UNICEF, 2008). These factors are influenced by both the economic (income) and social environment of the household. Attention needs to be paid to addressing inadequate/inappropriate knowledge and discriminatory attitudes (including the subordinate status of women and girls within the household) which limit household access to actual resources (ibid). Another focus should be women's time constraints and their limited ability to use knowledge on nutrition and child care practices. The need to carry out productive activities and fulfil domestic responsibilities often means women are forced to compromise in terms of quality of food preparation and child care practices such as weaning. Women may also use negative coping strategies such as reducing their own intake of food.

There are a number of ways in which social protection can support food security and nutrition. The emergence of the social protection agenda in the late 1990s/early 2000s coincided with a refocus on rural livelihoods and food security in many low-income countries (Devereux, 2001). Initially, social safety nets aimed simply at 'raising the consumption of the poor through publicly provided transfers'. In the early 2000s, there was a shift to 'helping low-income households cope with income fluctuations as well' (Morduch and Sharma, 2002, in Devereux, 2003). More recently, there has been increased attention to the role of social protection in addressing long-term chronic poverty with a focus on social equity (Devereux and Sabates-Wheeler, 2004; Holmes and Jones, 2010; UNICEF, 2010).

At the macro level, the operation of buffer stocks and the public food grain distribution system are important determinants of consumption smoothing to infuse a greater supply into the market and thereby ensure lower prices. A well-functioning public distribution system, especially one that provides free or subsidised food, would also contribute to consumption smoothing under most shock situations (IFAD, 2011). Indeed, such programmes have been a popular mechanism in many countries, for example India and Pakistan, to address ongoing food insecurity and malnutrition. They have also been a response to macro-level shocks to protect the poor from sharply increased food prices, as in Indonesia during the 1997 financial crisis and more recently in the Philippines as a result of the 2007/08 food price crisis (Arif et al., 2010). In general, however, social protection has limited impacts on aggregate poverty and food security. Many programmes face logistical and institutional constraints and are poorly targeted, and the scale and coverage of public transfers never match the extent and depth of the poverty problem (Devereux, 2001).

At the household level, social protection programmes can support access to and utilisation of food and nutrition. To date, they have focused more on access, through, for example, direct

consumption support in the form of transfers or subsidies, and public works programmes and input subsidies aimed at increasing rural/agricultural productivity and incomes. Programmes have also provided indirect support. For example, transfers or subsidies can help households to invest in agriculture and other productive opportunities, can free up income for other priorities and can enable access to credit. Households can use public works programmes to create individual and/or community rural infrastructure (such as roads, which promote market linkages, or irrigation).

The extent to which gender and intra-household issues have influenced the design and implementation of social protection programmes has varied greatly, however. Overall, both have received limited attention. Opportunities to enhance the integration of gender from the macro through to the micro level depend on the balance between formal and informal social protection mechanisms within a country as well as the profile of government agencies responsible for the design and implementation of formal mechanisms. These can be reinforced or mediated through policy interventions, discriminatory practices embedded in institutions (e.g. social exclusion and discrimination in the labour market) and community, household and individual capacities and agency.

Integrating gender at these levels is vital to programme success in tackling poverty and food security. Entry points for a more gender-sensitive approach to social protection for improved food security include promoting the real incomes of women through equal wages in public works programmes; accounting for intra-household inequalities when distributing cash or in-kind transfers to households; avoiding exacerbating women's time constraints linked to programme activities; providing alternative quality care arrangements for children and/or creating gender-sensitive infrastructure to reduce time poverty; supporting women's nutritional knowledge and ability to exercise knowledge within the household through economic and social empowerment; and recognising life-cycle nutritional vulnerabilities, in particular for pregnant women and children under five.

3. Methodology

The methodology for the research involved a combination of qualitative tools structured around the following four areas (see Table 2):

1. The patterning and underlying causes of household- and individual-level vulnerability to food insecurity and under-nutrition, in particular through a gender lens;
2. Coping strategies that households and different family members employ to overcome these vulnerabilities;
3. Effects of social protection programming and complementary measures on food security and poverty/vulnerability reduction at community, household and intra-household levels, with particular attention to gender dimensions;
4. Implications for future policy and programme design to improve social protection effectiveness.

Table 2: Overview of research methodology

Methodology	Details
Desk review	Secondary data and programme document analysis
Key informant interviews	National (policymakers, donors, international agencies, civil society, researchers) and sub-national (government and non-government implementers)
Focus group discussions (FGDs)	16 FGDs in 4 villages, 8-12 participants, 2 with adults (male and female) and 2 with adolescents (male and female): total 8 FGDs in 2 villages.
In-depth interviews	32 in-depth interviews, 1 male and 1 female for each life-cycle stage (adolescent, single adult, married adult, elderly) in 4 villages: 16 in-depth interviews in 2 villages

Research was conducted in four sites in two *kabupaten* (district): Tapanuli Tengah (Tapteng) in the western part of the country (North Sumatra province); and Timor Tengah Selatan (TTS) in Nusa Tenggara Timur (NTT) province, one of the poorest regions in the eastern part of Indonesia. The fieldwork was conducted in two villages in each *kabupaten* based on a purposive matched sampling technique, which considered their similarities in terms of poverty ranking in order to ensure their comparability. Table 3 provides further details of the two sample *kabupaten*.

Table 3: Key characteristics of the research sites

	Tapteng	TTS
Poverty level* (%)	19.4	33.6
Population	323,563 **	432,178***
Human Development Index/ Gender-related Development Index (2007)	70/68.7	64.3/53.3
Food insecurity ****	Priority 4 (scale of 6)	Priority 1 (scale of 6)
Ethnic background	Patrilineal	<i>Belis</i> (marriage tradition)
Culture (as relevant to gender)	Batak	Timorese
Rural/urban	Rural	Rural
Land/agro-ecological characteristics	Mountainous	Dry climate
Malnutrition (% underweight children < 5 yrs) *****	27.8	40.2

Sources: * BPS (2009); ** BPS (2010a); *** BPS (2010b); **** WFP (2009); ***** NIHRD (2007).

4. Food insecurity and under-nutrition in Indonesia: an overview

Indonesia is the fourth most populated country in the world after China, India and the US, with a population of 237 million (BPS, 2010c). The country made a remarkable recovery after the Asian crisis, and vast improvements have been made in terms of poverty reduction, food security and nutrition. In relation to nutrition status, for example, the prevalence of children under five years of age who are moderately and severely underweight decreased from 31% in 1989 to 17.9% in 2010 (Bappenas, 2010). Recent figures also indicate that Indonesia is on track to achieve the national MDG target of reducing poverty to 15.5%. Nevertheless, major disparities and pockets of high poverty and food insecurity levels remain. For instance, recent data indicate that the prevalence of underweight children under five years of age ranges from 11.2% (DI Yogyakarta) to 30.5% (Nusa Tenggara Barat) (NIHRD, 2010).

In this section, we look first at the status of food security in Indonesia, using key nutrition indicators. Then we discuss the drivers of food security and malnutrition, using the three components of food security in the conceptual framework above.

4.1 Food insecurity and malnutrition

Indonesia has made steady progress in terms of improving food security, but data from 2004-2006 show that 16% of the population remains undernourished (von Grebmer et al., 2010). Moreover, a considerable proportion of pregnant and lactating women suffer from iron deficiency anaemia which is prevalent in 40% of pregnant women. It is also responsible for 25% of maternal deaths and associated with low birth weight, which has consequences for children's nutrition as they develop (ADB, 2009). Indeed, child under-nutrition remains a particular concern. The nutritional status for under-five children can be measured on three indicators:

1. Underweight or a weight-for-age ratio (less than -2 z-scores of the median of the 2005 World Health Organization (WHO) reference). This indicates mixed acute and chronic malnutrition.
2. Stunting or a height-for-age ratio (less than -2 z-scores of the median of the 2005 WHO reference) which refers to persistent, long-term, chronic malnutrition.
3. Wasting or a weight-for-height ratio (less than -2 z-scores of the median of the 2005 WHO reference) as a hint of acute or recent malnutrition.

National prevalence of severe underweight among children under five in 2007 was 5.4% and moderate underweight was 13%, making the total under five underweight figure 18.4% (NIHRD, 2007). This means the MDG target of reducing the proportion of underweight children under five to 18.5% in 2015 had already been achieved by 2007. More recent figures (NIHRD, 2010) show the prevalence of severe underweight among children under five has decreased to 4.9% and moderate underweight has stayed stagnant at 13%, making the total under five underweight figure 17.9%.

However, as with other health indicators, there are huge disparities between provinces and districts. At the provincial level, 19 provinces have a higher rate of underweight compared with the national average. These include North Sumatra and NTT, which had 22.8% and 33.6% in 2007, respectively. By 2010, prevalence had decreased to 21.4% in North Sumatra and 29.4% in NTT. At the district level, underweight prevalence in Tapteng and TTS was at 27.8% and 40.2%, respectively, in 2007. Tapteng was classified as having 'high' prevalence, as the rate was between 20% and 29%. TTS was classified as 'very high', with one of the highest rates in Indonesia.

On stunting, national prevalence decreased slightly from 36.8% in 2007 to 35.6% in 2010. A total of 17 provinces were reported as having a prevalence higher than the average, including North Sumatra and NTT, both of which had 'very high' prevalence (>40%) among children under five (43.1% in 2007 and 42.3% in 2010 in North Sumatra and 46.8% and 58.4%, respectively, in NTT). At the district level, figures are available only for 2007: Tapteng had a rate of 41.8% and TTS 57%.

As for wasting prevalence, data are available only at national and provincial level. The national average for wasted children in 2010 was 13.3%, a slight decrease from the 2007 level of 13.6%. At the provincial level, figures for both North Sumatra and NTT were worse than the national average, at 17% and 20%, respectively, in 2007 – in the category of 'very high' prevalence. By 2010, both provinces had moved to 'high' prevalence, with rates that had decreased to 14% and 13.2% in North Sumatra and NTT, respectively.

Table 4: Nutritional status of children under five, 2007 and 2010

	Underweight		Stunting		Wasting	
	2007	2010	2007	2010	2007	2010
National	18.4%	17.9%	36.8%	35.6%	13.6%	13.3%
North Sumatra	22.8%	21.4%	43.1%	42.3%	17%	14%
Tapteng district	27.8%	n.a	41.8%	n.a	n.a	n.a
NTT province	33.6%	29.4%	46.8%	58.4%	20%	13.2%
TTS district	40.2%	n.a	57%	n.a	n.a	n.a

Sources: NIHRD (2007; 2010).

High malnutrition rates are a key concern not only for children but also for pregnant and nursing mothers. National data from 2010 show that 24.4% of pregnant mothers consumed below the energy requirement (NIHRD, 2010). The proportion of underweight pregnant women in TTS increased from 27% in 2007 to 32% in 2008 (Gender and Child Statistics, 2005-2008 in Centre for Women Studies, 2009). Some malnourished mothers weighed only 20-30kg, with inadequate intake and erratic eating patterns, which led to their children being undernourished.

4.2 Drivers of food insecurity and malnutrition

Rice is the main staple food in Indonesia, followed by corn, cassava and sweet potato. In 2007, rice production was at 57.2 million tonnes, or around 23% of total agricultural output. Corn and cassava accounted for 13.3 and 20 million tonnes, respectively, or 13% of total agricultural output for both. About 1.9 million tonnes of sweet potato were produced (WFP, 2009). The carbohydrates in cereals (rice, corn) and tubers (cassava, sweet potatoes) make up about half of the total energy requirement per person per day. During 2003-2007, Java followed by Sumatera was the main production centre for cereals and tubers, although Papua has become a centre for sweet potato.

Production of cereals and tubers has been increasing over time, although it has declined slightly in the past two years. For example, growth of rice production is predicted as slower in 2009-2010 compared with in 2008-2009 (Table 5). Factors in this include conversion of agricultural land, increasingly limited and uncertain water availability and degradation of infrastructure (WFP, 2009). Meanwhile, high population growth means that food needs in the future will increase faster than the rate of production. This is a key challenge for achieving food security.

Table 5: Growth rate of main food crops, 2006-2010

	2006-2007	2007-2008	2008-2009	2009-2010*
Rice	4.96%	5.54%	6.75%	1.17%
Corn	14.45%	22.80%	8.04%	2.20%
Cassava	0.01%	8.85%	1.30%	3.68%
Sweet potato	1.73%	-0.27%	9.36%	1.56%

Note: * Second forecast.

Source: BPS (2010d).

Tapteng, like most areas in Indonesia, is reliant on rice as the primary staple. Average annual production in the district was 66,100 tonnes in 2005-2007. Corn, cassava and sweet potato are also produced but are less important – only 3,100 tonnes each for corn and cassava/sweet potato in the same period. In TTS, on the other hand, corn is the main staple, and production is much higher than that of rice, cassava and sweet potato. The annual average in 2005-2007 was 127,000 tonnes, with rice at 7,300 tonnes and cassava and sweet potato at 14,700 tonnes.

Different staple foods mean a different food security story in each research site. TTS has higher surplus cereal availability than Tapteng, with a ratio of 0.3 compared with Tapteng's 0.45, contributing to a district ranking of 70 compared with Tapteng's 152 (WFP, 2009).¹ However, TTS ranks poorly in terms of overall food security and nutrition: it is ranked as the highest priority in terms of food security (6) (Tapteng ranks (3)). This demonstrates the importance of food access and utilisation in terms of food security – beyond food production and availability.

The second component of food security – food access – depends on factors such as household purchasing power. This is determined not only by household livelihood opportunities but also by intra-household access to and ownership of productive resources, as well as women's control over income and expenditure.

Indonesia reached its lowest monetary poverty rate, of 11.3%, in 1996. High and stable economic growth during 1976-1996 led to significant reductions in the poverty headcount rate, at on average 1.44 percentage points per year. However, the growth level after the crisis (1999-2009) translated into an only 0.55 percentage point reduction per year. In 2010, the proportion of people below the poverty line (official poverty rate) was 13.3% (Suryahadi et al., 2010). Also important are those who have per capita household expenditure just above the poverty line, hence are considered non-poor, but who are extremely vulnerable to moving into poverty when a negative shock occurs. In 2008, for example, 15.4% of the population lived below the national poverty line. However, 42.6% came below the international poverty line of \$2 a day (purchasing power parity (PPP)).

In addition, the distribution of poverty is unequal. For example, among the 10 provinces with the highest monetary poverty incidence, 7 are located in eastern Indonesia. However, in terms of absolute numbers, most of the poor reside in Java and in several provinces in Sumatera. In Tapteng, the percentage of people below the poverty line decreased from 27.5% in 2007 to 19.4% in 2009 – a fall of 8.1 percentage points in two years. A government official of the Regional Development Planning Agency (*Bappeda*) in Tapteng revealed that this was triggered partly by the establishment of a new power plant and several oil palm plantations in 2007, which created more job opportunities for low-income groups. In TTS, the percentage of people below the poverty line has decreased, but not as significantly as in Tapteng – that is, by about 3.8 percentage points during 2007-2009, from 37.4% in 2007 to 33.6% in 2009. Respondents complained that unpredictable weather (long dry seasons followed by too much and erratic rains) made it difficult for people in TTS, who are mostly subsistence farmers, to move out of poverty.

A gendered analysis of income poverty in Indonesia is challenging, given that the indicator used for measuring poverty is household not per capita income. One method involves looking at poverty status based on household head's sex. There has been an increase in the proportion of poor female-headed households, from 13.43% in 2006 to 14.61% in 2009; in the same period, the proportion of poor male-headed households decreased slightly, from 14.50% to 14.10% (Suryahadi et al., 2010). However, this level of analysis does not capture differential poverty rates among women within male-headed households.

¹ WFP (2009) data generate the ratio of per capita normative consumption to per capita net cereal availability. A ratio above 1 means an area is in deficit whereas a ratio below 1 indicates an area in surplus. The districts are then ranked in terms of food availability.

Unequal and limited access to employment opportunities, resulting from domestic gender roles and socio-cultural norms, can help explain other gender dimensions of poverty. Although women outnumber men in terms of the working-age population (83.7 million women in 2009 against 82.8 million men), their participation in the labour market remains much lower. Women are still invisible in employment statistics, because of this and because they have a more dominant role in household work. In 2009, about 32.4% of all females working as family labourers were doing so without pay, compared with 8.1% for men (BPS, 2009a). In TTS, out of the total working-age population in 2009, 84% of males were economically active, against only 60% of females. Of economically inactive males, most were attending school (60%); most economically inactive females (69%) were carrying out domestic work (BPS, 2010b).

Furthermore, women and men receive unequal wages even for the same type of job. Between 2003 and 2009, the wage gap increased: in 2003, women received around 79.7% of the wage received by men; in 2009, this figure had dropped to 78.5%. In Tapteng, a male worker receives approximately Rp 35,000 (\$3.80) a day, whereas a female worker receives only Rp 23,000 (\$2.50), even for the same type of work (Arif et al., 2010). Women often have no choice but to work for lower wages. In study areas in Tapteng, there is also a difference in terms of the type of wage: women usually receive an in-kind wage whereas men receive cash. Moreover, women typically have fewer employment opportunities owing to traditional gender roles (women tend to work in rice fields and sell woven cloths, but men have broader income opportunities throughout the year). Traditional views that prioritise men as the breadwinners contribute to the wage gap between male and female labourers.

Meanwhile, access to food is affected not just by income, but also by control over income and intra-household access to productive resources, for instance. A large body of evidence shows that the greater the degree of control women exercise over the family income, the greater the proportion of income spent on food. In the 2007 Indonesian Demographic and Health Survey (DHS), almost 50% of women in rural Indonesia reported that their earnings supported all of the household expenditure and 37% said half or more (BPS et al., 2007). The majority of rural women make the main decisions on what food should be cooked and on household purchases for daily needs. However, decisions on large household purchases are more likely to be made jointly with or solely by the husband (ibid). In North Sumatra, more women (62%) have control over their own income expenditure than in NTT (35%), despite almost half of respondents stating that they contribute half or more of their earnings to the household (ibid).

In terms of access to and ownership of productive resources, such as land, animals, inputs, technology and credit, women are disadvantaged. Land is often registered in one name, that of the husband. Nationwide statistics on joint titling or registration by sex are not available, but for areas where systematic titling has been implemented, data show that, as of 1998, 30% of titles were issued in the names of women, 65% in the names of men and 5% in multiple names, such as inheriting siblings (ADB, 2006). Meanwhile, the average proportion of female clients served by major microfinance institutions has remained fairly constant over the past 20 years – indicating no improvement on this indicator. Estimates from Bank Rakyat Indonesia units show that only 25% of both their microcredit borrowers and their micro savings customers are women. These statistics are not disaggregated by poverty quintiles (ibid).

Access to food also entails access to basic infrastructure, including roads, electricity and markets. Better infrastructure will attract greater economic opportunities through investment, thus will provide greater opportunities for people to improve their livelihood. Again, there are wide disparities between regions and districts here. Data from the Village Census (PODES) in 2008 show that 91.3% households in Tapteng have access to electricity, whereas in TTS only 20.4% households do (BPS, 2008). Using the National Socioeconomic Survey (SUSENAS) 2007, the number of households without access to roads is 11.6% and 8.8% in Tapteng and TTS, respectively (BPS, 2007). Moreover, in many villages in TTS (including both the villages studied), road conditions remain very poor, and the mountainous topography makes access very difficult in

the rainy season. Public transport is also still rare and relatively expensive. Access is not so difficult in the villages studied in Tapteng, because each has many kiosks stocked with essentials. The only place people can shop and sell their products in the villages under study in TTS is the weekly market, which is located in the sub-district capital. People have to walk hours to get to this market, preventing them from carrying many products to be sold or bought.

Finally, food utilisation, which refers to a household's use of food and an individual's ability to absorb nutrients, is assessed on the indicators of food consumption patterns, access to health facilities, access to safe drinking water, female illiteracy, nutritional status and health outcomes.

Food consumption patterns at national level show an improvement in terms of average daily intake in SUSENAS 2007 – at 2,050 Kcal/person/day, slightly above the national recommended daily allowance of 2,000 Kcal (BPS, 2007). Protein intake is 56.25 grams/person/day – also slightly higher than the national recommended allowance (52 grams). However, women and children's malnutrition remains cause for concern, as discussed earlier. The nearest health facilities for most people (particularly the poor) are community health centres, mostly located in sub-district capitals. Reaching such facilities takes more than 30 minutes in some provinces, including NTT; the higher a household's expenditure per capita levels, the closer the facilities and the shorter the travel time required (NIHRD, 2007). In Tapteng, 8.7% of households are more than 5km away from the nearest health facilities, whereas in TTS this figure is 34.7% (BPS, 2007). Other factors that influence access to health care – such as socio-cultural norms around gender inequality – are also important determinants of food security. For instance, almost half of married women (49%) do not make their own decisions about accessing health care services (BPS et al., 2007).

Mothers and carers of young children influence the health and nutritional status of children and families. Many studies have proved that under-nutrition is strongly correlated with mother's educational level, which is also linked to women's empowerment, decision-making power and control over resources within the household. Hence, female literacy is an important determinant of food utilisation. Female illiteracy in 2007 at the national level was 13% (WFP, 2009). In Tapteng in 2009, it was about 8%, far lower than the national level, but in TTS it was 21% (WFP, 2009). Again in TTS, the female illiteracy rate was higher than the male rate – at 18.3% and 15.7%, respectively (BPS, 2010b). Statistics have not been segregated by gender in Tapteng. Breastfeeding, which is crucial for children's nutritional and health status, continues to be limited: 45.4% are breastfed 0-1 months, 38.3% 2-3 months and 31% 4-5 months, with girls 32.4% and boys 29.7% (NIHRD, 2010).

Another indicator of food utilisation is access to safe drinking water and sanitation. Based on SUSENAS, 21.1% of households in the country did not have access to improved drinking water nationally in 2007 (BPS, 2007). Sources of improved drinking water here include protected wells, boreholes, spring water, tap water and rain water. SUSENAS also reports that almost half of households (48.5%) in Tapteng were without access to safe drinking water in 2007. The situation was even worse in TTS, at more than half of households (61.3%). Most households in TTS use springs as their source of drinking water (36% of households use uncovered springs and 25% covered springs). Only 15% of households have piped water.

As for sanitation, no data are available for Tapteng. However, there is no doubt that sanitation is very poor in this district. Very few households own a private toilet at home: most people just go to the river or use a public toilet. In contrast, in TTS, almost all households own a private toilet, even though for most of them (71%) it is an unhealthy/non-flush/pit toilet.

5. Site-level vulnerabilities

5.1 Food access and utilisation

The staple food in Tapteng is rice, with cassava leaves the main vegetable. The main protein source is fish. People almost never eat meat, except on festivals (once a year) or at parties. During seasonal hard times (see Figures 2a and 2b), they consume only rice with cassava leaves or dried fish. Eggs and fruits are consumed by households that have chickens or fruit trees.

‘There is no meat except on Eid Fithr, once a year’ (married female, Tapteng).

Figure 2a: Timeline for rubber tapping (men) in Tapteng

J	F	M	A	M	J	J	A	S	O	N	D
Dry season					Rainy season				Peak of rainy season		
Difficulties ensuring daily consumption may occur throughout the year depending on the price of rubber and the availability of side jobs										Men have difficulty tapping	

Source: FGDs and in-depth interviews.

Figure 2b: Timeline for rice cultivation (women) in Tapteng

J	F	M	A	M	J	J	A	S	O	N	D
		Harvest time			Planting time			Harvest Time			Planting time
Lack of rice		Enough rice			Lack of rice			Enough rice (sometimes harvest fails because of pests)		Lack of rice	

Source: FGDs and in-depth interviews.

In TTS, the staple is corn: only a small number of households (mostly rich ones) eat rice as their staple. Corn is usually consumed with cassava leaves, papaya leaves or mung beans; during hard times (in January until March) it comes without any side dishes. Most households, except those with people who work as civil servants, produce corn for subsistence, along with cassava, papaya, banana and other seasonal vegetables. Eggs are generally eaten every one or two weeks, when poultry lay eggs. Each household has around three to five chickens. Almost all households eat beef or pork only when they attend a wedding party, so children eat less meat than their parents.

Figure 3: Timeline for cassava cultivation (man and women) in TTS

J	F	M	A	M	J	J	A	S	O	N	D
Planting time (rainy season)		Harvest time			Dry season						
Most critical time		Abundant food stock			Enough food stock			Lack of food starts			

Source: FGDs and in-depth interviews.

The main occupation in Tapteng is agriculture. In most households, the main earner is the father, who works as a rubber tapper, although women also contribute to household income through work in rice fields. Older children, mostly boys, help their fathers. Men receive cash once a week after selling their rubber in the market. After taking a bit for cigarettes, they give some money to their wife, who manages the family's finances. Women receive wages every day, in the form of a can of rice (1 can = 4kg) or a cash equivalent (currently about Rp 30,000). Once a week, women go to the market to buy fresh fish, chilli, onion, cooking oil, coffee, tea, sugar, kerosene and rice (if there is none at home). If they lack food or other things before market day, they go to the nearest kiosk.

The situation is quite different in TTS, where most households are subsistence farmers. Both men and women perform agricultural work, although only men are recognised as farmers, with women identified only as their husband's helpers. Household cash comes mainly from cleaning others' farms (mostly men), selling crop products (e.g. bananas, cassava, corn and vegetables), selling livestock (including chickens and pigs) and selling woven sarongs (mostly women). Households use cash mainly to purchase cooking oil, salt, coffee, sugar, kerosene, side dishes (fish and vegetables), rice (occasionally), betel nut and alcohol (only men). Money goes towards schooling monthly. Water is free, and all households use firewood for cooking, collected by women.

Most households in all sites eat three times a day. A few eat twice a day, including poor single elderly women – particularly widows, who do not have sufficient land or energy to cultivate their land. In Tapteng, people eat a big meal with rice, even for breakfast. In TTS, people usually have cassava or bananas with coffee or tea for breakfast, with corn served for lunch and dinner. Sometimes, such as after receiving *Raskin* rice, they have rice porridge for breakfast.

In Tapteng, the rainy season is considered a hard time for people who work in the rubber fields. Production is not so good, so the average income from rubber tapping decreases. Meanwhile, people who work in the rice fields or on farms have faced difficulties since irrigation stopped functioning in the area almost three years ago. Complaints have been delivered to the district government, but nothing has happened. As mentioned above, women who work in the rice fields receive an income in rice, and can therefore stock rice for the family to eat for the two to three months after harvest. If the stock runs out before the next harvest, they have to buy rice. They complained about the price of rice and other basic needs, which had recently begun increasing.

'64 [good quality] rice now is Rp 30,000 per can; two weeks to one month ago it was only Rp 27,000 -28,000' (female FGD, Tapteng).

'Not only rice is increasing continuously in price, but also other foods and basic needs such as cooking oil, kerosene, tea, sugar, coffee and so on' (male FGD, Tapteng).

During hard times, people tend to reduce the quality of rice but not the quantity. They said they must eat rice three times a day to be able to work in the fields. In one village in Tapteng, the poorest often consume cassava or sago palm as a substitute for rice for lunch during such times.

'We cannot consume less rice even when prices are soaring; we cannot lie to our stomach. We can reduce other consumption, but we try our best not to reduce our rice consumption' (adult male FGD, Tapteng).

'How can we eat less rice? It is impossible! It is better not to eat vegetables – we can still get vegetables from neighbours' (married female, Tapteng).

In TTS, people do not reduce the amount of meals but sometimes have to decrease the quantity or quality of their food. From August to November, households cannot grow vegetables, so they eat food of poorer quality. After planting until harvest time, from December to February, is the hardest

time. Some households have to reduce the quantity of their food intake, since households have very limited corn stock after using it for seeding their land.

Some households prioritise children and the elderly, particularly in hard times. In TTS, while healthy vegetables and fruits are available, babies under two are usually fed with instant baby food, purchased from local kiosks, or rice porridge if the households have a stock of rice. This points to parents' limited knowledge on nutritious food. During hard times, when only corn is available, parents grind it to make it edible for babies/toddlers. Starting from the age of three, toddlers have the same food as adults. As for the elderly, those who have lost most of their teeth and cannot eat corn consume only rice or rice porridge. During hard times, someone grinds corn and cooks it as porridge.

Because of household members' different activities, families eat together only at dinner time. Mothers usually serve the food, keeping a plate separate for any family member not at home. The father and other male adults usually get more (particularly of the staple but not of side dishes) as a result of perceptions that they are working harder and need more food. In some cases, children eat first, because they cannot cope with hunger and so that parents can eat undisturbed after.

5.2 Health and nutrition

In Tapteng, children generally eat the same food as the other members of the household. Parents usually also give them a small amount of money to buy snacks at school. Most children do not drink milk, and exclusive breastfeeding for six months does not occur: mothers usually breastfeed for three to four months maximum. In extreme cases, they give a baby porridge, tea or banana within two days of birth. This practice results from mothers' limited knowledge and beliefs; lack of support from husbands; interventions by other family members, such as grandmothers; and household's economic condition, which requires mothers to go back to work as soon as possible.

'When newborns cry and cry, it is very common here to feed them with porridge or banana. Grandmas say they cry because they are hungry' (midwife, Tapteng).

A few households in Tapteng where the mother is educated know the importance of good nutrition for their children. They feed their children with better food, milk, vitamins and fish oil.

'We buy fruits like oranges and apples on market day and also get snake fruit, jackfruit or bananas from the field. Children drink milk every morning: we finish three can of milks every week' (married female, Tapteng).

'If we lack rice or cook less rice and younger brothers/sisters have not eaten, we let them eat first even though we are also hungry' (male adolescent, Tapteng).

In TTS villages, most children and adults do not drink milk, instead regularly drinking water or tea. Some households said that, if they have money (once every one or two months), they buy a sachet of milk powder and share it with all family members. The village midwife claimed that most babies are not exclusively breastfed. On the 40th night after a baby is born, parents conduct a special ceremony to bless the baby and its mother, which involves feeding the baby with a little egg yolk. After the ceremony, if the baby cries, the mother feeds it with soft food, such as mashed banana or eggs. Poor child nutrition results in a high number of underweight children. In one village, out of 271 children under five, 21 have severe underweight status and 59 moderate underweight status. In the other village, around 30-40% children under five are underweight. Compared with three years ago, however, the number has decreased. Food supplements from the District Health Office targeted at underweight children and biscuits for the under fives and pregnant mothers from the World Food Programme (WFP) have improved the nutritional status of children.

'Every now and then, when the parents have the money, they give the children milk' (female FGD, TTS).

'I only drink plain water, the weaned child drinks tea [...] Before weaning, the child has its mother's milk' (female FGD, TTS).

In both Tapteng and TTS, children are nurtured mostly by their mother. As a consequence, and as explained in the conceptual framework, mother's knowledge and education influence children's nutritional intake as well as nutritional status. In Tapteng, a few households with more educated mothers feed their children better food. These mothers are also better at managing the family's resources. When more money comes from rubber, they save some for hard times; women who earn cash daily working on other people's farms save money from this. Women who work in the rice fields stock rice. These sources of income save them in the hard times.

However, as most mothers in Tapteng work outside, child care and feeding practices are a big concern. When they go to work, older siblings (usually girls) or grandmothers take care of the small children in the family. Otherwise, mothers have to bring babies or toddlers with them to the farm or field. Neither arrangement is ideal. In the latter case, mothers have to concentrate more on their work than on their offspring. In the former, there is limited capacity to perform the necessary tasks optimally. Children aged 10 or above take care of their younger siblings, with girls more likely to be given this task. In TTS during hard times, when mothers have to go to the market more frequently than normal, to sell livestock, cassava or woven sarongs, student absenteeism rates increase. Many school-age children have to stay at home taking care of their younger siblings.

In general, people know what nutritious food is. They know that meat, eggs, vegetables, milk and fruit are good for development, especially for children. Based on FGDs and interviews, respondents in TTS have less knowledge than those in Tapteng (e.g. respondents rarely mentioned milk, whereas it was mentioned quite often in Tapteng). Females tend to have better knowledge than males, and adolescents tend to be better informed than their parents, as they obtain knowledge from school. Married women, particularly those who have been pregnant, access information about nutrition from midwives or monthly *posyandu* (mobile health post) activities.

However, this knowledge is hardly put into practice. People said the biggest constraint to consuming such food was their lack of financial capacity. A different perspective came from midwives, who said the problem related more to people's ability to manage money and to practise food diversification in the family. Nutritious food is not always expensive, and can also sometimes be found growing near the house. Adolescents who obtain such knowledge from school sometimes transfer information to mothers.

'People's awareness of nutritious food is lacking. Good food is not always expensive; you can take green vegetables, cassava or sweet potatoes from the surrounding area. They know but they are lazy' (midwife, Tapteng).

Most male adults and adolescents (both male and female) believed that pregnant women do not need different diets, although they knew that some women change their appetite during pregnancy. In contrast, most adult female respondents were aware of the need for more nutritional food during pregnancy, thanks to their mandatory four visits to the village midwife during the course of pregnancy. In Tapteng, midwives open the *posyandu* on market day so working mothers can attend. In TTS, the village head, village midwife and *posyandu* cadres fine those who do not go. If a woman cannot attend, the midwife will come to her house to provide services.² However, even though women have some knowledge on nutrition during pregnancy, they tend to ignore it, supposedly because of a lack of financial capacity. Note that, in TTS, a man spends around Rp

² In addition, since 2007, women have had to give birth at health clinics aided by a village midwife. If a woman delivers at home, the family has to pay a fine of Rp 500,000.

2,000-4,000 every day on betel nut and occasionally Rp 10,000 on traditional alcohol (*sopi*). Smokers spend even more. Women have no authority to interfere with men's money.

There are also some taboos in the community around pregnancy. For example, pregnant women cannot go out after dark; when they are six months pregnant they have to visit a spiritual and traditional healer (*dukun*) to prevent them from evil spirits (*satan*); they are prohibited from eating some foods or fruits, like pineapple, durian and hot chilli sauce (*sambal*); etc. However, the younger generations tend to be more relaxed towards things.

'Pregnant women cannot go out after dark. They take something from a dukun or wear a garlic necklace after delivery to prevent them from bad satan' (midwife, Tapteng).

'We should not believe in the taboos in the community, it is nonsense' (male adolescent FGD, Tapteng).

In Tapteng, cigarettes are consumed widely among adults and adolescent males. Adult males smoke around one to two packs per day. Adolescents consume half a pack to a pack per day depending on how much money they have: those who already work can smoke as much as they want. No excessive consumption of alcohol was found in the research sites in Tapteng. One of the villages is majority Muslim, which might explain this, but even in the other village, which is more mixed, *tuak* (traditional alcohol) consumption seemed less of an issue.

'Cigarettes have no nutrition. But we have to smoke, even when we have less money. We need it to prevent mosquito bites in the rubber fields' (male FGD, Tapteng).

'People in this village seldom drink tuak except at parties. Not every day' (male FGD, Tapteng).

In both villages in TTS, most men are busy chewing betel nut, which means not many of them smoke. Some women also chew betel nut (but none smoke, which is considered a man's activity). Boys start chewing betel nut (but not on a regular basis) at age 10, sometimes even as early as 5; girls start later, mostly after they get married. Some respondents said they feel nauseous if they do not chew it for a day. It also suppresses hunger and gives them more energy, particularly when they have to work long hours on the farm.

Consumption of *sopi* is high among adult and adolescent males in TTS. Some drink it on a regular basis; others drink it occasionally at parties (at a wedding *sopi* is served for male guests). It is common to see men drunk in public in the day. *Sopi* is also believed to increase men's energy while they are working on the farm.

5.3 Water and sanitation

Access to water is quite good in the two sample villages in Tapteng. In one village, women and girls do not have difficulties fetching water: there are several spring water sources of good quality, as the villages are in a mountainous area. In addition, the new PNPM Rural³ provides public wells and clean piped water to households. The public wells can be accessed easily as they are located in the middle of the community. Not many people can afford piped water direct to the house as they have to pay for installation themselves, which costs Rp 300,000-500,000 depending on the distance. However, villages still find the programme, particularly the public wells, very beneficial.

³ PNPM Rural is the National Programme for Community Empowerment in Rural Areas. One of its components entails the construction of economic and social infrastructure that communities want and need. PNPM Rural has been implemented for about three years in Tapteng but started in 2010 in studied villages in TTS.

In another village, people usually have their own well at home or fetch water from neighbours/relatives nearby who have an electric pump. Water volume decreases in the dry season but people seldom find their wells run dry. If this does happen, they have to join people who do not have a well in fetching water from the river or public wells. According to the village secretary, PNPM Rural will provide more public wells in coming years.

'If our well is empty in the dry season, we have to ask for water from neighbours/relatives who have an electric pump. In the past two years, we have had to go the river because of a prolonged dry season' (male FGD, Tapteng).

Most households in the two villages in NTT fetch water from a public well shared between 10-15 households. The water is not too clean, particularly during the rainy season. Some wells are covered with semi-permanent iron roofing, but the walls are not cemented. Households keep pigs, cows or chickens nearby, and in the rainy season dung seeps into the water. Since 2007, a small number of households in Napi village (who can afford it) have had access to piped water supplied by the local government. The monthly surcharge is Rp 8,000 if water is fetched from a public tap and Rp 30,000 if it flows to a private bathroom, with a setup fee of Rp 1 million per household. Piped water runs only twice a week, each time lasting for two hours.

In both Tapteng and TTS, fetching water and other domestic chores are women's, i.e. mothers' and daughters', responsibility. Boys are involved if there is nobody else. Children aged 10 years and above (either boys or girls) are considered able to help their mother fetch water. Men help only if women or girls are sick, pregnant or recovering from childbirth. In Tapteng, there were no complaints in one village, as public wells are nearby. But in the other village, women and girls have to walk to the river or a more distant public well if their own well is empty during the dry season.

'I have to fetch water as well as take washing using the public well before going to school. The well is just five minutes' walk away. Usually I bring four gallons of water for drinking and cooking' (female adolescent, Tapteng).

'We have a well at the back of the house for bathing and washing dishes. But I still have to fetch water for drinking and doing the laundry from the public well' (married female, Tapteng).

'We or the boys fetch the water if wives are sick or if they are still weak after delivering a baby' (adult male FGD, Tapteng).

In TTS, most households can obtain water easily during the rainy season, by walking for 2-10 minutes. Water is fetched twice a day, with two trips made in the morning and two in late afternoon. Adult women can carry three five-litre water containers per trip and children two. In the dry season, some wells go dry and households have to fetch water from different sources, mostly further away (1-2km). Those who can still access the same sources have to wait longer (two to four hours) because they have to share less water with more households. This puts an additional burden on women, while school children cannot participate in the morning trips because they have to go to school. Some men claimed that during the dry season they help wives fetch water, arguing it is too far and the late afternoon trip is unsafe for them. However, some women stated that fetching water is the woman's responsibility all year round. The difference is that in the evening in the dry season usually the whole family goes, although in the morning women still have to go themselves.

'The cultural factor determines it. The wife gets the water and firewood and cooks, while the husband drinks coffee when he wakes up. This is not fair; this gender injustice' (Women Empowerment Office, TTS).

People's awareness of the need to make water safe to drink is high in Tapteng. All households boil water to use for drinking. People also wash their hands before meals, although it is not clear whether they use soap. However, other health practices remain poor, such as those regarding the

disposal of waste. People throw household waste into the bin in the backyard then burn it. In the rainy season this takes more time so they throw it in the river.

In TTS, people's awareness is still low. Not all villagers boil water before they drink it, particularly those who live near the forest. According to the village midwife, some households do not boil water properly and boil it only once a day, meaning they drink fresh water if the boiled water is finished. While working on the farm, villagers have to drink fresh water. Drinking dirty water is the main cause of widespread diarrhoea in both villages. Meanwhile, almost no villagers wash their hands before meals, mainly because they are too hungry and are in a rush to eat. Some respondents said they were just not used to washing their hands before meals, although they knew they should.

In Tapteng, sanitation is very poor in one village. According to the village head, roughly 10-20% of households have their own toilet. People usually go to the river or irrigation fetch to excrete. In another village, some households said they had their own toilet (more so than in the former village) but the midwife said these were only holes in the backyard which they have to bring water to wash.

In TTS, nearly all households have their own private toilet and bathroom. Most toilets are considered unhealthy: households dig a hole and squat above it; some use water, some do not. Toilets have four non-permanent walls without roofing or tiles. They are located 100m from the house to keep away the stink. Bathrooms are small rooms (about 2m²) with wooden walls and with no basin, drainage, roofing or tiles. A small number of households that live near the forest use the forest as their toilet and bathe in the river or near public wells. Households that do not have a private toilet and those that need to go to the toilet while working on the farm also use the forest. To clean up after defecating they use corncobs, leaves or stones.

Most households in TTS do not produce much inorganic rubbish since they do not consume many manufactured products. Each house has a rubbish hole in its back yard, except for houses near the forest. Once the hole is full, they burn the rubbish or use it for compost (organic fertiliser). Those who live near the forest normally dump the rubbish anywhere in the forest.

5.4 Intra-household tension and conflict

In Tapteng, discussion and interviews revealed that conflict increases when there is economic pressure. Tensions within households elevate especially during the rainy season, when less or even no money is brought home from the rubber plantations. Men usually go out to drink coffee to get rid of their stress. As women still have to carry out their domestic chores and go to work in the fields or on farms, apparently with no empathy from their husbands, this can lead to arguments.

Problems with the children can also lead to conflicts, with mothers and fathers often having different perspectives on bringing them up. Fathers are usually harsher, while mothers tend to act more gently and protectively.

Respondents said that tensions are usually expressed verbally, not physically. When wives are angry at their husbands, because they earn no money, the latter may leave the house for a while or talk less; some may help on the farm and admit to feeling guilty. If the conflict gets worse, they may ask relatives, neighbours or elderly people to mediate.

'If tension elevates at home, we leave the house for a while, talk less or help the wife on the farm' (male FGD, Tapteng).

'We see that they ask relatives or neighbours or the elderly to mediate and calm down the conflict' (female adolescent FGD, Tapteng).

In both villages in TTS, domestic violence is not a taboo topic. Incidence of domestic violence is still quite high in both villages, although it is decreasing. The most frequent tensions are between husbands and wives, then between parents (particularly fathers) and children (particularly sons) and then between siblings (boys against girls).

The main causes between husbands and wives are: wives have not cooked when husbands come back from the farm; wives leave the house or borrow money without telling husbands; and husbands are drunk – which can make other problems worse. Husbands said that women cook late because they are busy chatting with neighbours, but wives say it is because small children are crying or fussing and because it takes a long time to fetch water during the dry season. In addition, corn takes longer than rice to cook (a minimum of three hours), and the women in the household have to cook it three times a day. In the dry season, when only corn is available, and there is no cash to buy any side dishes, men may blame this on their wives, as they are entrusted with the money. Managing a small amount of household money is difficult, particularly when men demand side dishes in times of difficulty or money for cigarettes or *sopi*. Meanwhile, women get angry at men for being lazy and staying at home doing nothing.

‘Sometimes, if the children are troublesome, the wife cannot cook and the husband is angry when he comes home [and there is no cooked food]’ (female FGD, TTS).

‘Sometimes, the wife goes out of the house without telling her husband and this makes him angry. The husband says, “do you or do you not have a husband, that you just go out of the house without letting me know in advance?”’ (female FGD, TTS).

‘Father drinks alcohol, mother cooks late, mother is beaten up’ (adolescent male FGD, TTS).

Most tensions between husbands and wives involve psychological violence, such as shouting or swearing at women, or physical violence of husbands towards wives. It is considered normal for husbands to hit their wives to teach them a lesson, either with their hands or using a wooden stick. Men under the influence of alcohol are more likely to be physically violent when they are angry with their wives. However, compared with three years ago, incidence of domestic violence has decreased in both villages. This is mainly a result of a campaign on domestic violence law enforcement conducted by NGOs such as Plan International and *Sanggar Suara Perempuan* (SSP) in collaboration with the local Women Empowerment Office. Husbands know their wives can send them to prison, and most wives know they can file a report at the local police office to get their husbands arrested. The campaign has been doubly effective in the villages studied because the Sub-district Police Office, which has been equipped with a separate section for handling domestic violence cases, is located in one village and adjacent to the other one.

‘Yes, some wives got slapped in the face or hit with a stick; like Mrs. A [she said this looking at a participant] who was once slapped by her husband because he was drunk and the case was taken to the police’ (female FGD, TTS).

‘Regardless of the beating up, we (wives) still love our husbands [...] What else can we do? Who will work and make a living?’ (female FGD, TTS).

‘Domestic violence is caused by someone being drunk. After drinking and returning home and the wife is either not at home or has not cooked, the husband begins to get angry and beats her up’ (village head, TTS).

Before the domestic violence law was introduced, most cases in the two villages were solved using a traditional ruling, called *kiu muke*.⁴ Under this, a husband who beat his wife was punished and

⁴ *Kiu* literally means tamarind and *muke* means lemon. The use of these two sour fruits represents the relationship between a wife and a husband, which needs to be harmonised.

had to pay an agreed fine, such as a number of pigs with some kilos of rice and some betel nut. Village heads and community leaders led the process, and the fine would then be used for a ceremony, participated in by the community. According to the district government, the *kiu muke* system was not effective at making husbands stop repeat offending, because the fine was too low and sometimes the rule was not implemented.

'If a case is handled by the chief of the neighbourhood unit and the traditional leaders, it means the offender receives a sanction/penalty in the form of one large pig, 50kg of rice and Rp 250,000. The fine is then cooked and consumed by households in a peace meeting' (elderly male, TTS).

'Those beaten up used to go to the chief of the neighbourhood, but now they go to the police because now there are policewomen here' (adolescent male, FGD, TTS).

Tensions between parents (mostly fathers) and their children (mostly boys) arise because children do not carry out their tasks properly, such as feeding the livestock, instead playing football with their friends. A father usually beats children using a wooden stick on their legs.

'The quarrels with the children are more about being too late in providing assistance in the garden, in feeding the cattle or in boiling water or cooking food' (elderly male, TTS).

Most households treat sons and daughters differently in the domestic division of labour. Daughters (10 years or above) are obligated to help their mothers in domestic work, including cooking, doing the dishes, laundry, cleaning the house, fetching the water, etc. When mothers are busy on the farm, daughters are fully in charge of the domestic work. Sons, on the other hand, take up a smaller portion of the domestic work, such as collecting grass to feed the livestock and collecting firewood. In a household with no daughters, sons sometimes help mothers. But once they are out of school and start earning money, most of them are freed from domestic work.

The unequal division of domestic tasks between girls and boys often triggers tensions between them, mostly expressed through shouting and assaulting one another. Girls complained in both interviews and FGDs: they have to wake up at 4am to undertake all the domestic tasks before they go to school, but boys wake up at 6.30, take a shower, have breakfast and run to school (Box 1).

'[Tensions arise] between my big brother and me, because he refuses to help when asked. For instance, he refuses to get water for a shower when he is asked to' (female adolescent, TTS).

'I do not have enough time to study because I have to clean the house, fetch water and sometimes help in the vegetable garden' (female adolescent, TTS).

Box 2: A school girl's daily activities

04.30	- Wakes up - Tidies up her bed - Washes dishes used previous night	13.30	- Arrives from school - Has lunch
	- Fetches water for drinking and cooking (10 minutes during rainy season; 2 hours in summer when she does only the afternoon trip)	14.00	- Takes a short nap (30 minutes)
	- Cooks (porridge) for family breakfast	14.30	- Helps mother water vegetable plantation
	- Showers	15.00	- Fetches water - Father uses some of water for a bath
		17.00	- Tidies up the house - Washes dishes used at lunch
06.30	- Leaves for school		- Takes shower
	Older brother wakes up at 06.00, has a shower and breakfast and goes to school	17.30	- Helps mother cook dinner
		19.00	- Has dinner

Source: In-depth interview.

6. Provincial and community strategies addressing food security and malnutrition

6.1 Provincial-level programmes supporting food security and nutrition

Most government programmes to address food insecurity and malnutrition at the local level are run from the central level. Key social protection programmes in this regard are the national *Raskin* rice subsidy programme and the smaller Family Hope Programme (PKH) CCT. The latter targets very poor households with pregnant women and/or children 0-15 years old and is conditional on the family enrolling children in education, accessing health services and meeting certain nutritional requirements.⁵

There are also programmes run by MOH and MOA to support food security and nutrition, both directly and indirectly. These include *nutritional support programmes* through the Supplement to Mother's Milk Programme (*Air Susu Ibu*) and nutritional supplements (e.g. biscuits, enzymes and multivitamins). The recently developed Nutrition Improvement through Community Empowerment (NICE) programme, implemented by MOH with donor funding, takes a participatory approach to nutritional problems, including cooking lessons and information dissemination. *Awareness-raising programmes* run by North Sumatra's Food Security Section of MOA include community education in villages. Families are educated on the importance of finding supplementary food around their houses as substitutes for their current staple diet. *Production and infrastructure* development run by MOA in TTS focuses on food security; agribusiness development; community welfare through, for example, vegetable seed assistance programmes; and provision and maintenance of water pumps and water catchment units. Other important, albeit more indirect, efforts include increasing the use of health services through Health Insurance for the Poor (*Jamkesmas*) and PNPM Rural.

In both villages in both Tapteng and TTS, despite targeting criteria, *Raskin* is received by all households (poor and not poor). Every one or two months, households receive around 15kg of rice, at a price of Rp 1,600 per kg, or about 20% of the market price. For households in Tapteng, whose main staple is rice, *Raskin* rice is distributed equally among household members. In TTS, where most households have corn as the staple, *Raskin* rice is consumed mostly by children or the elderly. Parents prioritise children with rice because they consider it to be more nutritious than maize. While *Raskin* is important for the poor, the programme's design and implementation pay no attention to gender or life-cycle nutritional needs.

'Rice for the Poor is especially beneficial for the elderly' (adolescent male, TTS)

'We have received Raskin for a long time, around 10 years' (male, TTS).

The PKH CCT is received by only a small number of households with under-five and/or basic education-aged children and/or pregnant mothers and which are considered very poor. Even though the programme is related to health and education, beneficiaries use the transfer mostly to fill daily needs, particularly by buying food: the money helps them improve the household diet by buying side dishes such as vegetables, eggs and fish. Some households use the money to increase their assets, such as by buying livestock or renovating their house. Such decisions are in the hands of men, even though CCT money is received by women. In TTS, the CCT has increased the participation of children under five and pregnant mother in *posyandu* and attendance rates in schools (Suryahadi et al., 2010).

⁵ For example, pregnant women must take iron tablets and under fives must take vitamin A twice a year.

In general, there are more government programmes for the poor (including those concerning food security) in TTS than in Tapteng. The study did not find any NGOs in the studied villages in Tapteng. This may be because socioeconomic conditions are better in Tapteng than in TTS.

In TTS, in a programme set up in 2007 and funded by WFP and the Australian Agency for International Development (AusAID), all pregnant women and children under five who come to the *posyandu* every month receive 30 small packages of biscuits. These contain nine vitamins and five minerals needed by pregnant women and children under five. This programme has increased the attendance rate in the *posyandu* and, according to village midwives, has contributed to the decrease in the number of underweight children and pregnant mothers.

Other NGOs, such as Plan International and Church World Service (CWS), provide small-scale assistance related to water and sanitation in TTS. During 2008-2010, Plan installed six (fibre) rainwater storage units in primary and junior high schools and at the village health clinic. In 2007, CWS improved three community wells by cementing the walls. Recently, there was a community initiative to build healthy toilets, whereby several households collected money to build toilets in turns. Besides such improvements in infrastructure, some community awareness raising on utilising of healthy water and sanitation occurs. The District Health Office and Plan International have also conducted sensitisation on the importance of washing hands before and after eating and drinking boiled water only. This is run routinely at school and at the *posyandu*.

TTS has also seen government and non-government awareness-raising campaigns on domestic violence in the past three years, as part of sensitisation on the law on domestic violence. Events have been conducted at village and hamlet levels as well as in schools. Local NGO SPP has collaborated with the local Women Empowerment Office to provide a shelter that can be accessed not only by domestic violence victims but also by those subjected to violence from outside the family. Women or children can obtain protection, counselling, legal aid and assistance in making a report to the police and the courts. Since the law came into effect, the local police precinct has been equipped with a special section to handle domestic violence cases, staffed by policewomen.

However, community members still believe they cannot rely completely on these types of programmes. This is because they cannot be accessed at all times when they are in need and because some programmes, such as the CCT, benefit only a small number of households. Hence, informal coping strategies remain the best alternative for households during hard times.

'We receive only Rice for the Poor [Raskin]. The government only assists at certain times, but relatives can assist at any time' (adolescent male, TTS).

6.2 Informal coping strategies at household and community level

Households undertake various strategies to cope with limited food during difficult times. The most common entails borrowing money. In Tapteng, people borrow food from local kiosks, saying they would feel shame if they borrowed from relatives or neighbours. In TTS, however, households mostly borrow (money or other items) from relatives or neighbours, possibly because of a lack of kiosks in each village. Most households said that when they borrowed money from neighbours or relatives they had to pay some interest, although this is not outlined explicitly at the time of borrowing. For example, if a household borrows Rp 100,000, it has to return Rp 125,000 the following month. Borrowing money is the husband's responsibility. If a wife borrows money without telling her husband, this can create tensions, as we have seen.

Another coping strategy that households embrace in hard times is undertaking more paid work, including labouring on other people's farms or at the market or, if they have the skills, working as carpenters or bricklayers. Such jobs are done mostly by men in TTS, but in Tapteng both women and men participate. Some men (mostly the younger ones) rent motorbikes and use them as taxis.

However, people feel it is getting more difficult to find this kind of work nowadays, since demand for work is outstripping supply.

Another coping strategy for households in TTS is selling household products and assets, including woven sarongs and livestock. Woven sarongs are considered women's, since they make them, whereas livestock belong to men. However, these types of assets are not always available in difficult times, especially for very poor households.

One last coping strategy, when no other alternatives exist, is reducing the quality and quantity of food. In Tapteng, women are more likely to reduce their food intake than men, although the reverse is true in TTS. In TTS, households cannot grow vegetables from August to November, so they eat food of less quality. After planting until harvest time – from December to February – is the hardest time. Some households have to reduce the quantity of food, since they have very limited corn stock left after using it in the new planting cycle.

7. Political economy of gender, food security and social protection in Indonesia

While there are numerous social protection programmes across Indonesia, no strategic approach has been taken to addressing poverty reduction through social protection mechanisms. Moreover, there has been limited attention to the importance of gender in social protection policy and programming to date, and a limited focus on the importance of food security as a key component of poverty reduction beyond simply increasing income.

To understand opportunities to strengthen social protection approaches to better tackle food insecurity, malnutrition and its gendered dynamics, it is important to understand the politics that underpin social protection strategy and programming development and implementation in the country. To do this, this research employed the so-called 'Three I's' – a political economy framework that emphasises: 1) *ideas* on vulnerability and the nature of citizen–state contracts; 2) the *interests* of key governmental and civil society actors in social protection programmes that address such contracts; and 3) *institutions* and their interaction with policies and programmes.

Ideas held by elites and the public are central in shaping policy development and outcomes (e.g. Hickey and Bracking, 2005). Policy dialogues and development programmes in Indonesia reflect a wide range of ideas about the nature of poverty and vulnerability: the ways these are experienced by different social groups (e.g. men, women, children, ethnic and religious minority groups) and their underlying causes; the purpose of social protection and the role of the state; and the extent to which these ideas are shared by different actors in the policy process. In 2008, for instance, the political discourse about social protection changed. Initially, all parties agreed that food security was a key element in the national programme for poverty reduction but, with highly contested national elections imminent, the specific mix of measures that the government would support became controversial. Different parties criticised the government's programmes and proposed alternative ways to reduce waste and increase efficiency (AusAID, n.d.)

Policymakers' ideas on gender have contributed to the weak integration of gender into food security and social protection programmes in a number of ways. Significant progress has been made in terms of getting gender onto the policy agenda and into legal frameworks, and mainstreaming gender into policy has been relatively successful, especially since the reform era. However, turning policies into programme implementation has been a key challenge, and Indonesia has been only partially successful in a few sectors (e.g. health and education). Understandings of the linkages between gender equality and poverty, vulnerability and food security remain weak. The 'economic efficiency' argument, linking gender equality to economic needs and underlining the importance of gender equality for meeting poverty reduction targets, has not been well made by progressive organisations. This has also been the case around gender-based violence, where there has been no attempt to assess the cost to the economy. Part of the problem lies in a lack of understanding of the importance of gender at the national level among key policymakers, which goes some way to explaining the insignificant role that it has played in social protection programming to date. The director of *Bappenas* argues that this is because gender is a relatively new concept in Indonesia, brought in by donor projects in the 1990s and subsequently taken up and driven by gender activists and academics.

Limitations with regard to understandings of gender are also a result of the challenges associated with data collection and analysis of sex-disaggregated data. For instance, female-headed households are often excluded from data collection at the national level because definitions used as to the head of the household are based on male-headed households. More commonly, while data may be collected and disaggregated by sex at the local level, there is no analysis of the implications of such findings to feed back into policy and programming. Moreover, data collection

around gender-based violence is very scarce. BPS and the Ministry of Women Empowerment and Child Protection (MoWECP) collect data, but on an *ad hoc* basis and the data are very scattered.

Indeed, this reflects a wider challenge relating to the ideas held in the country – that, despite the important linkages between violence, nutrition and poverty, gender-based violence is still considered a private issue, not a national public one. Some organisations are trying to mobilise and increase knowledge from the local to the national level, but both communities and the government largely continue to perceive violence as a personal problem.

More broadly, while there is agreement among gender advocates that the government should play a role in addressing gender inequality and relations between men and women, there are no real targets in place to change relations/behaviour at the household level, apart from a few programmes in the health sector focusing increasingly on men's responsibility in reducing maternal health problems. Indeed, general policies and programmes on gender equality tend to operate within 'comfortable' boundaries as to the concept of women's roles and responsibilities. This is reflected in the targeting of cash transfers to women to improve household well-being and education curriculum text books that promote stereotypical gender roles. Meanwhile, food security and nutrition programmes focus on women's role in household food preparation, rather than overcoming broader socio-cultural and economic challenges, such as women's time poverty, lack of decision-making power in the household, lack of access to and control over productive resources, wage inequalities and limited job opportunities.

Given the breadth and range of social protection interventions in the country (there are over 800 programmes termed as 'social protection'), the actors – and thus *interests* – involved in social protection debates are diverse. Actors include political, social and economic elites who play a key role in setting the terms of the debate; administrative bureaucratic agencies with the responsibility for delivering social protection objectives (typically spanning a range of ministries: social welfare, women's and children's affairs, health and nutrition, food security and rural development); civil society actors – both international and national – working with or acting on behalf of the poor; and bilateral donors and multilateral agencies. These actors have a range of different interests in promoting social protection, and consequently influence the extent to which social protection is linked with food security, nutrition and gender equality.

It is well recognised in Indonesia that the *Raskin* rice subsidy programme faces challenges in its design and implementation. However, the programme's politicisation – as with food subsidy programmes in many other countries – makes it difficult to change it without risking popular protest. A key factor in this debate in Indonesia is the sensitivity of the government to any rice price increases, as these are linked to the proportion of people living below the national poverty line calculation and to the government's commitment to reduce poverty to 8-10%. As pointed out in one key informant interview, this is all the more sensitive in the context of the government's resistance to publically admitting the extent of wasting rates in the country, as a country striving towards middle-income status and being a G20 country.

There has been a concerted effort by the president and development partners to address poverty more strategically in Indonesia. However, the National Team for Accelerating Poverty Reduction (TNP2K) is not yet seeing gender as a key component of its strategy, especially as it is facing general challenges in getting set up and started. Nevertheless, there is potential for bringing in experts in the near future, as TNP2K will host several organisations that advocate gender issues, such as the Women Learning Center for Gender Justice and Pluralism (*Kapal Perempuan*), Women Research Institute (WRI), the Programme for Women-headed Households in Indonesia (PEKKA) and the SMERU Research Institute. These will collaboratively scrutinise the gender dimensions of poverty, which could lead to a more strategic policy-oriented discussion.

As mentioned above, there has been progress in mainstreaming gender into certain sectors, as some ministries are increasingly concerned with its importance (planning, education, health). This

is partly a result of strong civil society actions on issues such as reducing maternal mortality and addressing reproductive health (Regulation 39 in 2009). However, there has been little national attention to date to transferring the advances made in gender mainstreaming and budgeting to the social protection sector. A number of international agencies have recently started to tackle this deficit by carrying out studies on gender and social protection (e.g. German International Cooperation (GIZ), the World Bank). However, overall, the main interest of the government has been in promoting 'safe' gender issues, which often serve to reinforce stereotypes of women's role in the household rather than challenging inequalities.⁶

Institutional capacity is the third pillar required to understand the relationship between gender dynamics, food security and social protection initiatives. Both social protection and gender programmes have been criticised for not being strategic enough to address the extent of poverty and vulnerability in the country. When it comes to addressing social protection, food security and gender, the linkages are even weaker.

Currently, a unified database is being developed to try to better coordinate social protection interventions at the national level. The challenge is serious, however. With over 800 social protection programmes, numerous ministries implement interventions. *Bappenas* controls only some of these. Despite progress in gender mainstreaming at the national policy level, the system remains very compartmentalised, lacks a strategic vision and demands no accountability in implementation. MoWECP, for instance, lacks coordination with other ministries, and the recent addition to the ministry of the child protection component has weakened its goals for women, as the former sees more commitment and more resources.

Linkages between gender, social protection and food security have been limited both conceptually and practically: departments responsible for nutrition are situated in MOH and have little coordination with MoWECP and MOA. Gender focal points – who are responsible for ensuring cross-institutional coordination and the integration of gender with other departments' priorities – lack institutional clout and have not demonstrated the capacity to influence planning to achieve these goals. The role of MoWECP is also weakened because it has no representation below the national level, and because key challenges remain with regard to its authority. Gender focal points have not been effective in resolving this because they do not have high enough status to influence decision making and policy and are not placed in planning departments at the local level.

Decentralisation in Indonesia presents both challenges and opportunities for strengthening programmes to improve food security, nutrition and gender concerns. However, crucial factors around capacity, coordination and financing need to be addressed urgently. Financing is a critical issue, highlighted in interviews at the local level. Most social protection and nutrition programmes are funded by the central government, although there is supposed to be a move towards funding development expenses under the category of 'mutual (central and district) interest', which includes a share from district government. This category includes specific central social protection interventions, with the district government share at 20-30%. However, even though this regulation is in place, not all districts comply with it, and therefore there are funding shortfalls as a result of their lack of fiscal capacity. Monitoring and evaluation in particular gets left out.

In addition, sub-national governments are supposed to receive a 'stimulation fund' budget from MoWECP to motivate gender mainstreaming initiatives at provincial and district levels (the ministry allocates around 20% of its budget in this way). Funds are to be spent on activities to increase the awareness of government officials on issues such as gender equality and justice, gender mainstreaming and problems related to gender disparities. They are also used to finance activities to increase the capacity of regional women empowerment offices and gender focal points in

⁶ Changes to Indonesian Islamic law to challenge discriminatory bylaws, for instance, have met with high resistance from religious groups. The domestic violence law in 2004 was a major achievement, but there has been limited attention to how to implement it.

gender analysis; technical methods for mainstreaming gender into regional policies and programmes; coordination of activities on women's empowerment; and collection of sex-disaggregated data. However, neither NTT nor North Sumatra has received a stimulation fund.

Budget fluctuations and limited funds for gender mainstreaming make it difficult to commit to a strategic approach to strengthening the tools available to mainstream gender more effectively. For instance, while there has been investment in gender-based training at the district level, this has been on a small scale. In TTS, for instance, approximately eight provinces were trained on gender mainstreaming issues in 2010 (the participants were representatives from each department). This is expected to be scaled up to all provinces, with funds from the provincial budget used to train gender focal points. However, there is a concern that the budget for gender mainstreaming is not enough, and that even this will decrease as a result of a shift by the central government towards technical instead of financial assistance from 2010, to equip local government with skills and knowledge on gender mainstreaming.

8. Conclusions

Food insecurity and malnutrition remain critical sources of vulnerability in our research sites, reflecting a broader trend across Indonesia: while national rates of food security and nutrition are improving, pockets of severe food insecurity and malnutrition remain. Much of the debate around poverty in Indonesia has focused primarily on income poverty. This has made it difficult to understand, recognise and address the multiple dimensions of poverty and their causes – including social vulnerabilities, such as gender inequality, spatial disadvantages and life-cycle risks. Social protection policy and programming in particular have involved less attention to food insecurity, despite one of the main national social protection programmes – *Raskin* – being a food subsidy programme. At the same time, although much progress has been made in terms of national policy commitment to mainstreaming gender, the advances seen in some sectors, such as education and health, have not been matched in the social protection sector. Given the budgetary commitment to social protection in Indonesia (1% of GDP), opportunities to enhance the effectiveness of social protection programmes by integrating a gender perspective should be seen as an urgent priority.

Key policy recommendations include the following:

- Given pockets of severe malnutrition as a result of spatial, social, cultural, political and economic inequalities, a more balanced model of economic growth, beyond a focus on income poverty and paying attention to issues of equity and inclusiveness, is urgently needed.
- Food insecurity and nutritional disparities still affect millions of Indonesian adults, especially women, as well as children, and need to be acknowledged explicitly and integrated into national social protection strategies and related programming to reduce poverty. Food insecurity and malnutrition need to be recognised as issues related not only to availability of food but also, importantly, to food access and utilisation. A more explicit recognition of gender inequalities across sectors needs to be better integrated into this approach. Growing regional and gender disparities in employment and education, as well as in nutrition, need to be targeted by specific, sustainable and adequately funded policies and programmes.
- Current social protection provision which does address food security – e.g. *Raskin* and CCTs – needs to be more efficient to achieve these goals. It also needs to take a gendered approach, beyond simply targeting women and/or reinforcing traditional gender roles and responsibilities. Enhancing the efficiency of the *Raskin* programme to better tackle gender and life-cycle risks, for instance, could entail targeting pregnant and nursing women and young children who are particularly at risk of malnutrition, supplementing *Raskin* rice with additional nutrition such as vitamin A or fortifying the rice with nutrients. Also urgent are complementary programmes to enhance women's access to and control over productive assets, to provide equal opportunities and pay in the labour market and to support women's empowerment at the household and community level.
- As malnutrition is a multifaceted problem, and as income growth is not the major determinant of improved nutrition, relevant policies and programmes need to more effectively integrate strategies to tackle other crucial factors. These include parental education (both mothers and fathers) and behavioural change support; awareness-raising activities for schools and communities; improved sanitation and hygiene measures; food fortification; and gender empowerment measures. Particular attention needs to be paid to stunting, given its chronic nature, its lifelong impact and its intergenerational transfer.
- The multiple institutional actors involved in social protection and nutrition/food security, including actors involved in the rollout of gender equality legislation, need strong leadership and improved coordination. TNP2K should strengthen gender in its approach as a priority. There are opportunities for organisations such as *Kapal Perempuan*, WRI, PEKKA and SMERU to contribute to a more strategic policy-oriented discussion. In addition, greater

attention to raising the awareness of the importance of gender is needed more generally, targeted especially at key government officials and policymakers.

- There is an urgent need to strengthen monitoring and evaluation systems that collect and analyse sex-disaggregated data to feed back into national and sub-national programme policy and design.
- MoWECP needs to continue to provide financial and technical resources to the district level to support existing gender mainstreaming mechanisms, especially in terms of building capacity among gender focal points to strengthen linkages between gender, food security and poverty reduction programmes. More specifically, gender mainstreaming tools implemented in key sectors such as education and health should be applied to the social protection sector.

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