Cambodia

Financial assessment of the National Social Protection Strategy for the Poor and Vulnerable

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ILO/EU/Cambodia/R.6

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Financial assessment of the National Social Protection Strategy for the Poor and Vulnerable

"Improving Social Protection and Promoting Employment", an ILO/UE project

International Labour Office, Geneva

ILO Cataloguing in Publication Data

Cambodia: financial assessment of the national social protection strategy for the poor and vulnerable/ EU/ILO Project on Improving Social Protection and Promoting Employment; International Labour Office. - Geneva: ILO, 2012

xii. 41 p.

ISBN 9789221265962; 9789221265979 (web pdf)

International Labour Office; EU/ILO Project on Improving Social Protection and Promoting Employment

social protection / employment policy / financing programme / vulnerable groups / Cambodia

02.03.1

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Printed in Switzerland

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Abbreviations and acronyms

AIDS	acquired immunodeficiency syndrome
CARD	Council for Agricultural and Rural Development
CBHI	community-based health insurance
CDCF	Cambodia Development Cooperation Forum
CFW	cash for work
CMDG	Cambodian Millennium Development Goals
CPI	consumer price index
CSES	Cambodia Socio-Economic Survey
CT	cash transfer
FFW	food for work
GDP	gross domestic product
HEF	health equity fund
HIV	human immunodeficiency virus
ILO	International Labour Organization/Office
IMF	International Monetary Fund
KHR	Cambodian Riel
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MOEF	Ministry of Economy and Finance
MOH	Ministry of Health
MOI	Ministry of the Interior
MOP	Ministry of Planning
NIS	National Institute of Statistics
NSDP	National Strategic Development Plan
NSPS	National Social Protection Strategy for the Poor and Vulnerable
ODA	official development assistance
PHIV	people living with HIV

PWP	public works programme
RFPL	rural food poverty line
RGC	Royal Government of Cambodia
SPER	Social Protection Expenditure and Performance Review
SPF	Social Protection Floor Initiative
TB	tuberculosis
TFR	total fertility rate
UN	United Nations
WHO	World Health Organization

Foreign exchange rate: US$1 = KHR 4,185 (2012)

Acknowledgements

This report is part of a series of technical cooperation reports produced by the Social Security Department and the Employment Policy Department of the International Labour Office within the framework of the ILO/EU project "Improving Social Protection and Promoting Employment". The project was funded by the European Commission and implemented in three pilot countries - Burkina Faso, Cambodia and Honduras.

The report was prepared by Jean-Claude Hennicot, Consulting Actuary, on behalf of the International Labour Office (ILO). The author would like to acknowledge the cooperation extended by the national counterparts, in particular the Council for Agricultural and Rural Development (CARD). Thanks go to those who provided inputs and comments, in particular HE Ngy Chanphal, Secretary of State (MOI) and Second Vice-Chairman of CARD; HE Vathana Sann, Deputy Secretary General, CARD; Dr Kanha Sok, Deputy Director, Department of Planning and Health Information, MOH; Helmut Schwarzer, Chief Technical Advisor, ILO/EU project “Improving Social Protection and Promoting Employment”; Hiroshi Yamabana, Social Security Actuary, ILO; and Andrés Acuña-Ulate, Social Security Actuary, ILO. Special thanks go to Malika Ok, ILO/EU National Project Coordinator, for her continual support and assistance during missions in Cambodia. Any errors or omissions that may remain are the responsibility of the author.

1. Introduction

The assessment presented in this report was prepared in the context of the EU/ILO project "Improving Social Protection and Promoting Employment", in close cooperation with the Cambodian Council for Agricultural and Rural Development (CARD). In the same context, a Social Protection Expenditure and Performance Review (SPER) was carried out during the year 2011, and the findings thereof compiled in a comprehensive report (ILO, 2012).

The National Social Protection Strategy for the Poor and Vulnerable (NSPS) outlines a long-term vision and strategic framework for the development and extension of social protection, taking into consideration the different dimensions of social protection and risk profiles of the poor and vulnerable in Cambodia. The design of new social protection programmes along the strategic framework defined by the NSPS will require further planning, policy formulation and resource mobilization that will lead from strategy towards implementation. This process should involve all stakeholders concerned, including CARD, the relevant line ministries and key development partners.

The objective of this report is to support the planning process through a preliminary financial assessment of alternative policy options that are likely to be considered. Its purpose is mainly to illustrate the implications of policy design on resource requirements. The mobilization of financial resources through the allocation of fiscal space and commitments from development partners is an important precondition before the new social protection programmes envisioned in the NSPS can be implemented. A financial assessment of key interventions is listed as part of the NSPS action plan, aiming to determine resource requirements and to develop, together with development partners, a financing plan that will include pooling arrangements and a programme-based approach:

> A costing exercise for the medium- and long-term implementation of the NSPS will be developed as a priority activity during the first year of implementation (including a detailed costing of existing and planned interventions and fiscal space analysis). Financing arrangements, including joint pool arrangements for certain tasks, will be discussed with development partners to embark on a programme-based approach for social protection in Cambodia and to align and harmonize donor support for the NSPS. (RGC, 2011a, p. 68).

Given the many different vulnerabilities and dimensions of social protection, it was not possible to include within the scope of this analysis all the programmes envisioned in the NSPS that cater to the various risk groups among the poor and vulnerable. Notwithstanding, an attempt was made at including interventions responding to the most important contingencies faced by the poor and vulnerable, and the main target groups among the vulnerable.

A list of 12 policy options was selected based on relevance to the NSPS and on consultations with stakeholders in Cambodia. For some of the policy options proposed, the costing presented in this report includes a separate scenario that assumes the introduction of the respective benefits on a universal basis. This should be understood as a preliminary financial assessment of the building blocks that would constitute a social protection floor for Cambodia.[1] The introduction of universal benefits is suggested in the NSPS as among

[1] The global Social Protection Floor Initiative (SPF-I) was launched by the UN family in 2009 under the lead of the ILO and the World Health Organization (WHO). In June 2012 the International Labour Conference adopted the Social Protection Floors Recommendation, 2012 (No. 202), providing guidance to Members in the establishment and implementation of national social protection floors within strategies for the extension of social security.

the policy options to be considered towards the achievement of the main objective pursued, namely, the extension of social protection in Cambodia.

The report is organized as follows:

– Chapter 2 presents background information and the strategic framework defined by the NSPS;

– Chapter 3 outlines policy options selected based on the five strategic objectives defined in the NSPS;

– Chapter 4 presents a preliminary financial assessment of the selected policy options; and

– Chapter 5 provides a summary and discussion of results and a brief conclusion.

A description of the model framework is presented in the Annex together with a summary description of the main assumptions used for the financial assessment.

2. The National Social Protection Strategy for the Poor and Vulnerable

2.1. Background

The National Social Protection Strategy for the Poor and Vulnerable (NSPS) was presented to the people and key stakeholders on 3 December 2011 by HE the Prime Minister of Cambodia. The Strategy had been developed based on a consultative process, with active participation from line ministries, development partners and civil society, with the objective of defining appropriate policy directions towards a more integrated and coordinated social protection system in Cambodia. An interim working group comprising representatives from line ministries and development partners had been set up in February 2009 to undertake an inventory of existing programmes and to develop a concept note for future developments. A draft strategy was subsequently prepared and presented to stakeholders for endorsement during the Cambodia Development Cooperation Forum (CDCF) held in June 2010. During 2011 the strategy was finalized and adopted by the Government on 11 March 2011.

The Government's long-term vision in terms of the extension of social protection is to ensure a basic guarantee of social protection provisions for the entire population through a package of benefits and complementary services. This vision is embodied in the NSPS and comprises targeted transfers to the poor and vulnerable, and the establishment of contributory social protection schemes. According to the NSPS, this long-term vision is in line with the Social Protection Floor Initiative (SPF), launched by the UN family in 2009 under the lead of the International Labour Organization (ILO) and the World Health Organization (WHO).

The NSPS aims at the development of social protection and of long-term livelihood improvement of the poor and vulnerable through the following three approaches:

- protecting the poorest and most disadvantaged who cannot help themselves, through the provision of social services (social assistance, food distribution) and support;
- preventing the impact of risks that could lead to negative coping strategies and further impoverishment (e.g. child labour) through the expansion of social safety nets (e.g. free health care for the poor, vocational training); and
- promoting ways for the poor to move out of poverty by building human capital (education, health and livelihood support) and expanding opportunities (RGC, 2011a).

The key interventions outlined in the NSPS are grouped under five strategic objectives, reflecting key development objectives as defined by the framework of the Millennium Development Goals (MDGs) (see section 2.2).

2.2. The components of the NSPS

The key social protection policies outlined in the NSPS are grouped under five strategic objectives that relate to the MDGs for Cambodia (CMDGs). The five strategic objectives are spelled out as follows (RGC, 2011a):

1. The poor and vulnerable receive support to meet their basic needs, including food, sanitation, water and shelter, etc. in times of emergency and crisis.

2. Poor and vulnerable children and mothers benefit from social safety nets to reduce poverty and food insecurity and enhance the development of human capital by improving nutrition, maternal and child health, promoting education and eliminating child labour, especially its worst forms.

3. The working-age poor and vulnerable benefit from work opportunities to secure income, food and livelihoods, while contributing to the creation of sustainable physical and social infrastructure assets.

4. The poor and vulnerable have effective access to affordable quality health care and financial protection in case of illness.

5. Special vulnerable groups, including orphans, the elderly, single women with children, people with disabilities, people living with HIV and tuberculosis, etc., receive income, in-kind and psychosocial support and adequate social care.

In pursuit of these five objectives, the NSPS promotes the scaling up of existing interventions and the introduction of new programmes to cover existing gaps. The list of priority interventions proposed for the five objectives is summarized in table 2.1.

Table 2.1. NSPS strategic objectives and interventions proposed, 2011

Strategic objective	CMDGs	Interventions proposed
1. Addressing food security and basic needs in case of emergency	1, 9	– Targeted food distribution – Distribution of farm inputs – Emergency support operations
2. Addressing poverty and vulnerability of children and mothers	1, 2, 3, 4, 5	– Cash, vouchers, food, or other in-kind transfers for children and women in one integrated programme – School feeding, take-home rations – Outreach services and second-chance programmes for out-of-school youth
3. Addressing seasonal un- employment and under-employment	1	– National labour-intensive public works programmes – Food for work and cash for work schemes
4. Promoting affordable access to health care for the poor and vulnerable	4, 5, 6	– Expansion of health equity funds (HEF) and community-based health insurance (CBHI)
5. Improving social protection for vulnerable groups	1, 6, 9	– Social welfare services for special vulnerable groups – Social transfers and social pensions for the elderly and people with chronic illnesses and/or diseases

Source: RGC, 2011a.

The design of new programmes under the five strategic objectives will require additional inputs from all stakeholders, in particular from the respective line ministries that will be entrusted with implementation. Further inputs will also be required from development partners, including funding and technical assistance on programme design and monitoring and evaluation (M&E).

3. Policy options proposed

In order to undertake a preliminary financial assessment of the interventions outlined in the NSPS, a range of policy options have been selected for the costing presented in Chapter 4. The options reflect alternative programme design features and vary either in the scope of the target population and/or the assumed level of benefits. The costing of alternative design options is intended to provide an indication of the scope of resources required for the implementation of specific programmes over time. This exercise should help to bridge the gap between strategy and implementation by supporting the policy formulation process.

To limit the scope of the exercise, the following assessment relates exclusively to social protection benefits provided in the form of cash transfers, including pensions and wages (for public works programmes (PWPs)). Although an assessment of programmes providing in-kind benefits and/or welfare services may be equally relevant, it is, however, beyond the scope of this preliminary exercise.

A summary description of the selected policy options is presented in the following sections.

3.1. Objective 1: Food security and emergency assistance

Objective 1 of the strategy relates to basic needs of the poor and assistance in times of emergency and crisis. For those living in extreme poverty, food security is a major problem since their daily subsistence is not ensured. Providing food security to all, in particular to those living below the food poverty line, is critical and should be part of the interventions to be pursued on a priority basis. Apart from the extremely poor, food security is also an issue for many of the near poor who are vulnerable to shocks or crisis. Since the majority of these rely on subsistence agriculture for their livelihood, they are highly vulnerable to climatic shocks that affect harvest yield, including droughts and flooding. Apart from climatic events, they are also regularly affected by other crises, including economic shocks such as sudden price variations in agricultural inputs (e.g. seedlings or fertilizer) or outputs, pandemics affecting livestock (e.g. the recent avian flu), and similar events that can affect their livelihood and survival.

Since climatic and economic shocks occur at irregular intervals and with varying severity, future needs for emergency relief operations cannot be assessed in advance; they are best dealt with at the time of their occurrence based on the respective circumstances. Due to their irregularity and ad hoc nature, emergency relief operations are usually considered as a separate part of a social protection system. Furthermore, since climatic or economic shocks can seriously affect market supply and prices of food, the provision of in-kind benefits (such as food rations) may sometimes be preferable to cash benefits. Since emergency relief operations are generally complex interventions that involve many different actors, a cost assessment thereof is beyond the scope of this report.

For the assessment of interventions aiming to provide food security to the poor, two alternative policy options are proposed (see table 3.1):

Policy option 1 comprises cash transfers to the extremely poor, to be provided on a regular basis, for instance monthly. The targeted population would be identified via ID-Poor and include only class 1 poor (ID-Poor 1). The proposed benefit level for the year 2012 is assumed at KHR 56,000 (US$13.40) per month, an amount equivalent to 60 per cent of the food poverty line projected at KHR94,000 (US$22.50) per month.

Policy option 2 comprises a cash transfer programme that goes beyond food security and aims at lifting all the poor out of poverty. The target population would comprise both class 1 and class 2 groups identified via ID-Poor. The proposed benefit level is set at 80 per cent of the rural food poverty line (RFPL) (about KHR 75,000 or US$17.90 per month in 2012) for those extremely poor (ID-Poor 1), and at 40 per cent of the rural food poverty line (about KHR 37,500 or US$8.95 per month in 2012) for the class 2 poor (ID-Poor 2).

Table 3.1. Policy options 1 and 2: Ensuring food security for the poor

	Option 1	Option 2
Objective	Ensuring food security for the poorest among the poor	Ensuring food security for the poor and attending to their basic needs
Target population	ID-Poor 1	ID-Poor 1 and 2
Type of benefit	Cash transfer	Cash transfer
Benefit level	60% of RFPL ~KHR 56,000 in 2012	80% of RFPL for ID-Poor 1 ~KHR 75,000 in 2012 40% of RFPL for ID-Poor 2 ~ KHR 37,500 in 2012
Periodicity	Monthly	Monthly
Indexation	CPI	CPI
Duration	Unlimited, so long as qualifying	Unlimited, so long as qualifying
Targeting mechanism	ID-Poor	ID-Poor

A cost projection for policy options 1 and 2 is presented in Chapter 4, section 4.1.

3.2. Objective 2: Reducing the vulnerability of children and mothers

Poor children are highly vulnerable, in particular during their early childhood. Malnutrition is known to affect their cognitive and educational development and therefore prevents them from achieving their full development potential in later years. Since malnutrition in children often starts in the womb, it is most relevant also to target pregnant women before childbirth. This allows the policy to concurrently address maternal health-care issues and aim at reducing the maternal mortality rate.

Three policy options addressing child and maternal poverty have been selected for the financial assessment presented below. All options considered consist exclusively of cash transfers for children or mothers. It may be relevant to consider additional in-kind provisions (such as vouchers for maternal health) and/or to make use of benefit conditionality in order to induce behavioural changes. A detailed assessment of programme design features and conditionalities that could be considered lies beyond the scope of the present analysis.

Policy option 3 comprises cash transfers for pregnant women who are poor (ID-Poor 1 and 2). The proposed benefit is set at 80 per cent for the rural food poverty index (RFPL), or about KHR 75,000 (~US$17.90) per month in the year 2012. The benefit would be payable during six months per pregnancy, with a total benefit amount per pregnancy of KHR 450,000 (~US$107.50).

Policy option 4 would comprise cash transfers for poor children aged under 3 years old (ID-Poor). The proposed benefit amount is set at 60 per cent of the RFPL, amounting to KHR 56,000 (~US$13.40) per month in 2012, or about KHR 672,000 (~US$161) per year.

Policy option 5 envisages a cash transfer for poor children attending primary school, if aged between 6 and 11. The proposed benefit level is set at 60 per cent of the RFPL, amounting to KHR 56,000 (~US$13.40) per month in 2012, or about KHR 672,000

(~US$161) per year. It is assumed that the benefit would only be payable if children attend school on a regular basis.

Table 3.2. Policy options 3, 4, and 5: Cash transfers for poor children and mothers

	Option 3	Option 4	Option 5
Objective	Income support for poor women who are pregnant	Child allowance for young children who are poor	Child allowance for primary-school children who are poor
Target population	Pregnant women who are poor (ID-Poor 1 & 2)	Children aged 0-2 years among the poor (ID-Poor 1 & 2).	Poor children (ID-Poor 1 & 2) aged 6-11 who attend primary school
Type of benefit	Cash transfer	Cash transfer	Cash transfer
Conditionality	To be considered[1]	To be considered[1]	School attendance
Benefit level	80% of the RFPL KHR 75,000 per month in 2012	60% of the RFPL KHR 56,000 per month in 2012	60% of the RFPL KHR 56,000 per month in 2012
Duration	6 months	As long as qualifying	As long as qualifying and attending school
Periodicity	Monthly or bi-monthly	Monthly or bi-monthly	Monthly or bi-monthly
Indexation	CPI	CPI	CPI
Targeting mechanism	ID-Poor	ID-Poor	ID-Poor

[1] Common conditionalities for such programmes are antenatal care for pregnant women (option 3), and medical examinations or vaccinations for young children (option 4). It is noted that the cost projections presented in Chapter 4 do not take into account potential impacts of conditionalities on the number of beneficiaries. For policy option 5 full compliance is assumed for school attendance.

The cost projections relating to policy options 3, 4, and 5 are presented in Chapter 4, section 4.2.

In order to assess the cost of providing the same benefits on a universal basis, i.e. to all Cambodians including the non-poor, three additional policy options have been considered: options 3u, 4u, and 5u.

Table 3.3. Policy options 3u, 4u, and 5u: Universal cash transfer benefits for children and mothers

	Option 3u	Option 4u	Option 5u
Objective	Income support to pregnant women	Child allowance for young children	Child allowance for primary school children
Target population	All pregnant women (universal benefit)	All children 0-2 years old (universal benefit)	All primary-school children (universal benefit)
Type of benefit	Cash transfer	Cash transfer	Cash transfer
Conditionality	To be considered[1]	To be considered[1]	School attendance
Benefit level	80% of the RFPL KHR 75,000 per month in 2012	60% of the RFPL KHR 56,000 per month in 2012	60% of the RFPL KHR 56,000 per month in 2012
Duration	6 months	As long as qualifying	As long as qualifying
Periodicity	Monthly or bi-monthly	Monthly or bi-monthly	Monthly or bi-monthly
Indexation	CPI	CPI	CPI

[1] See note in table 3.2.

The cost estimations for policy options 3u, 4u, and 5u are presented in Chapter 4, section 4.2.

3.3. Objective 3: Addressing seasonal unemployment

Objective 3 of the NSPS promotes the expansion of public works programmes (PWP) that aim to create employment opportunities for the rural poor, while also contributing to the development of the national infrastructure. PWPs can be an important source of livelihood for the poor, particularly after the occurrence of natural disasters and during the low season in agriculture. In the past years a number of cash-for-work (CFW) and food-for-work (FFW) programmes have been successfully implemented in certain provinces, and because of this their expansion nationwide is envisioned by the NSPS, focusing on labour-intensive programmes with high labour inputs rather than capital inputs, in order to maximize their social impact.

For the assessment of PWPs, two alternative policy options have been selected:

Policy option 6 comprises a nationwide public works programme targeting ID-Poor 1 households, with one member per household participating. The proposed daily wage is set at KHR 10,000 per day (US$ ~2.40) for the year 2012, to be indexed in line with the national average wage.

Policy option 7 envisions a nationwide public works programme targeting all ID-Poor households, including classes 1 and 2. All other provisions would be the same as under policy option 6.

It is assumed that the duration of the programme would be three months per year, comprising 80 paid workdays. Since poverty runs in households, it is assumed that only one person per targeted household is allowed to participate. Furthermore, since many among the poor have a gainful activity, the majority of them may not be available to participate. It is therefore assumed under both options (6 and 7) that 10 per cent of targeted households would participate in the programme, and that the programme would be designed accordingly in terms of scope.[2] The assumed scheme provisions are summarized in table 3.4.

Table 3.4. Policy options 6 and 7: Public works programmes

	Option 6	Option 7
Objective	Providing seasonal employment and income security to the poor	Providing seasonal employment and income security to the poor
Target population	ID-Poor 1 households (1 person per household)	ID-Poor (1 & 2) households (1 person per household)
Type of benefit	Cash for work	Cash for work
Wage level	KHR 10,000 per day in 2012	KHR 10,000 per day in 2012
Indexation	Wage inflation index (see Annex)	Wage inflation index (see Annex)
Duration	3 months per year (80 paid workdays)	3 months per year (80 paid workdays)
Targeting mechanism	ID-Poor	ID-Poor

The financial assessment of policy options 6 and 7 is presented in Chapter 4, section 4.3.

[2] The assumption here on participation is somewhat arbitrary but deemed justified for the intended purpose of a preliminary costing. To assess the need and potential participation under such programmes, detailed data on seasonal unemployment in the project areas would be required.

3.4. Objective 4: Extending social health protection

Objective 4 of the NSPS promotes the extension of social health protection for the poor and vulnerable through the expansion of health equity funds (HEFs) and community-based health insurance schemes (CBHIs). Ensuring access to affordable health care for all Cambodians is an important objective towards the achievement of the Cambodian Millennium Development Goals (CMDGs). Ensuring access to health care for the poor and vulnerable will help in particular to reduce child mortality rates (MDG goal 4), improve maternal health (MDG goal 5), and support the fight against communicable diseases including HIV/AIDS and malaria (MDG goal 6).

In order to illustrate the cost of extending access to care for the poor, a single policy option is proposed under objective 4 as follows:

Policy option 8 comprises the extension of health equity funds to all the poor (ID-Poor 1 and 2), ensuring thereby that all the poor benefit from free medical services at public health facilities, and from the other benefits as provided by HEFs, and which aim at removing secondary barriers to care such as the cost of transportation to health facilities, and the cost of food for patients and family members during in-patient stays at public hospitals.

A preliminary costing of policy option 8 is presented in Chapter 4, section 4.4.

3.5. Objective 5: Extending social protection for vulnerable groups

Objective 5 of the strategy aims at the extension of social protection provisions for vulnerable groups, including orphans, people with disabilities, the elderly, and people living with HIV/AIDS (PHIV) and/or other chronic diseases. Since the majority of them are unable to work due to their physical condition or health status, they are unable to earn a living and are therefore particularly vulnerable. Besides income support, most of them also need special care such as medical care or rehabilitation catering to their respective conditions. Furthermore, for some of these vulnerable groups there is a need to promote their rights so as to protect them from social exclusion and/or stigmatization, notably for the disabled and the PHIV. A comprehensive assessment of social welfare needs for these special vulnerable groups should take these other dimensions into account.

In order to illustrate the cost of income support programmes for vulnerable groups, a preliminary costing of social pension programmes is included below for the two main groups listed above – the elderly and the disabled.

3.5.1. Income support for the elderly

Elderly members of society have traditionally been supported by their children or by other relatives of the wider family. Due to the continuing decrease in fertility rates and family size, increasing migration, and the breakup of the family kernel, these traditions are gradually eroding in Cambodia, as elsewhere in the world. Furthermore, with life expectancy and old-age dependency ratios increasing around the world, the design of collective pension arrangements to ensure the livelihood of the elderly until their passing has become an important but challenging policy objective. In order to assess the cost of a social age pension programme in Cambodia, three alternative policy options have been assessed for the assumed retirement ages 70, 65 and 60 (see table 3.5).

Policy option 9 comprises means-tested pensions for the elderly aged 70 and above living in extreme poverty (ID-Poor 1). The proposed benefit amount is set at 100 per cent of the RFPL, i.e. KHR 94,000 (~US$22.50) per month for the year 2012.

Policy option 10 comprises mean-tested social pensions for the elderly poor (ID-Poor) aged 65 and above. The proposed benefit amount is set at 100 per cent of the RFPL.

Policy option 11 comprises social pensions for the elderly poor (ID-Poor) aged 60 and above. The proposed benefit amount is set at 100 per cent of the RFPL.

Table 3.5. Policy options 9, 10 and 11: Social pensions for the elderly poor

	Option 9	Option 10	Option 11
Objective	Means-tested old-age pension for the elderly	Means-tested old-age pension for the elderly	Means-tested old-age pension for the elderly
Target population	ID-Poor 1	ID-Poor 1 & 2	ID-Poor 1 & 2
Qualifying age	70	65	60
Type of benefit	Pension	Pension	Pension
Benefit level	100% of RFPL KHR 94,000 per month in 2012	100% of RFPL KHR 94,000 per month in 2012	100% of RFPL KHR 94,000 per month in 2012
Periodicity	Monthly	Monthly	Monthly
Indexation	CPI	CPI	CPI
Duration	Until death	Until death	Until death
Targeting mechanism	ID-Poor	ID-Poor	ID-Poor

The level of the pension benefit proposed for the three policy options is set based on the RFPL, with annual adjustments assumed in line with the evolution of the CPI (see Annex, section A.3).

In order to assess the cost of providing old-age pensions on a universal basis, i.e. to all citizens of Cambodia, three further policy options are proposed for consideration: options 9u, 10u, and 11u. These options relate to options 9, 10, and 11 in so far as the same retirement ages are assumed. In order to ensure comparability, however, the monthly benefit amount for options 9u, 10u, and 11u has been assumed at 100 per cent of the RFPL, i.e. KHR 94,000 (~US$22.50) for the year 2012.

Table 3.6. Policy options 9u, 10u and 11u: Universal old-age pensions

	Option 9u	Option 10u	Option 11u
Objective	Social old-age pension	Social old-age pension	Social old-age pension
Target population	All Cambodians (universal benefit)	All Cambodians (universal benefit)	All Cambodians (universal benefit)
Qualifying age	70	65	60
Type of benefit	Pension (cash benefit)	Pension (cash benefit)	Pension (cash benefit)
Benefit level	100% of RFPL KHR 94,000 per month in 2012	100% of RFPL KHR 94,000 per month in 2012	100% of RFPL KHR 94,000 per month in 2012
Periodicity	Monthly	Monthly	Monthly
Indexation	CPI	CPI	CPI
Duration	Until death	Until death	Until death
Targeting mechanism	None	None	None

In the same way as for option 9, 10, and 11, it is assumed that the benefit level will be adjusted every year based on price inflation as measured by the CPI (see Annex, section A.3).

3.5.2. Income support for the disabled

Disability is a major issue in Cambodia; according to the last population census the total number of permanently disabled persons is estimated at 192,538 (NIS, 2009) or 1.4 per cent of the total population. Disability often results in the total loss of working capacity, so that people with disabilities are generally unable to earn a living and have to rely on support from family or community for their subsistence. Since the disabled are particularly vulnerable, it is relevant to consider the introduction of disability pensions to be provided under the national social protection system. In order to assess the cost of a social pension programme for the disabled, two alternative policy options are proposed as follows:

Policy option 12 envisions a programme providing means-tested pensions for the disabled targeting the population classified as poor (ID-Poor 1 and 2). The proposed benefit level is set at 100 per cent of the RFPL, i.e. at KHR 94,000 (US$22.50) per month in the year 2012. It is assumed that the benefit level would be adjusted annually in line with consumer prices as measured by the CPI.

Policy option 12u refers to the same benefit provided on a universal basis to all Cambodians who have permanently lost their working capacity.

Table 3.7. Policy options 12 and 12u: Pensions for the disabled

	Option 12	**Option 12u**
Objective	Disability pension for the poor	Universal disability pension
Target population	Disabled persons among the ID-Poor 1 & 2	All disabled persons
Qualifying conditions	Permanent loss of working capacity	Permanent loss of working capacity
Type of benefit	Pension benefit	Pension benefit
Benefit level	100% of RFPL KHR 94,000 per month in 2012	100% of RFPL KHR 94,000 per month in 2012
Periodicity	Monthly	Monthly
Indexation	CPI	CPI
Duration	Until death	Until death
Targeting mechanism	ID-Poor 1 & 2 + disability assessment	Disability assessment

A disability pension programme would require the adoption of a clear definition of disability or permanent loss of working capacity, and appropriate assessment guidelines. Depending on the definition of disability to be adopted, a periodic reassessment may be required, particularly if the there is a likelihood that those qualifying could potentially recover their working capacity fully or partially. Furthermore, given that there is usually a continuum of cases qualifying as partially disabled, it may be relevant to consider the allocation of a partial or reduced benefit for certain cases.

3.6. Summary of policy options

A summary of all policy options outlined above is provided in table 3.8.

Table 3.8. Summary of policy options proposed

Policy option	NSPS objective	Programme description	Target population
1	1	Cash transfers for the poor	ID-Poor 1
2	1	Cash transfers for the poor	ID-Poor 1 & 2
3/3u	2	Cash transfers for pregnant mothers	ID-Poor 1 & 2 / universal
4/4u	2	Cash transfers for children aged 0–2	ID-Poor 1 & 2 / universal
5/5u	2	Cash transfers for primary school children	ID-Poor 1 & 2 / universal
6	3	National public works programme	ID-Poor 1
7	3	National public works programme	ID-Poor 1 & 2
8	4	Extension of health equity funds	ID-Poor 1 &2
9/9u	5	Social pensions for the elderly aged 70+	ID-Poor 1/ universal
10/10u	5	Social pensions for the elderly aged 65+	ID-Poor 1 & 2 / universal
11/11u	5	Social pensions for the elderly aged 60+	ID-Poor 1 & 2 / universal
12/12u	5	Social pensions for the disabled	ID-Poor 1 & 2 / universal

4. Financial assessment of policy options

This chapter presents a financial assessment of the proposed policy options outlined in Chapter 3. The cost of each programme was estimated for the year 2012, the first full calendar year following the launch of the NSPS. Financial projections were also undertaken for the period 2013-2020, so as to illustrate the future cost development of the respective programmes, this both in nominal (KHR) and in relative terms (percentage of GDP).

It should be emphasized that the projection results presented here are preliminary estimates; they will need to be revised if or when the implementation of the respective programmes is considered so as to adequately reflect detailed programme design features and implementation issues. In this chapter it has been assumed that all benefits are in force from 1 January 2012 (ex-post simulation) and that full coverage applies from the onset for all programmes.[3] The costing presented should thus be understood as a conceptual exercise aimed at illustrating the comparative cost of different policy options and their projected cost development over time.

Model framework and programme-specific assumptions are presented in the Annex. The main assumptions are summarized below.

Poverty prevalence rates. Assumptions regarding poverty prevalence rates and future trends are based on official figures published in the Mid-Term Review on the National Strategic Development Plan (RGC, 2011b), including the poverty headcount rates for the year 2007 and the declining trend projected for later years (2008-2020). Accordingly, for the year 2010 the national prevalence rate for extreme (food) poverty is assumed at 15.1 per cent, to decrease by 1 percentage point per annum over the period 2011-2020. The total poverty rate for the year 2010 is assumed at 26.1 per cent, to decrease by 1.3 percentage point per annum over the period 2011-2020 (see Annex, section A.4). It is noted that poverty rates have been assumed exogenously, i.e. as given; therefore, any impacts that the proposed programmes will have on poverty prevalence rates have not been taken into account.[4]

It is further assumed that the reported poverty prevalence rates as derived from national statistical data (notably the Cambodia Socio-Economic Survey, CSES) reflect the respective target populations identified under ID-Poor, the assumed targeting mechanism for the proposed programmes targeting the poor. Whereas ID-Poor is based on a comprehensive household assessment undertaken at the village level, the data from CSES is established through a national survey with a representative sample of households across the country.

Benefit levels. The level of benefits for most of the programmes is based on the rural food poverty line (RFPL), which has been projected for the period 2010-2020 from the 2009

[3] It was deemed premature to include considerations related to implementation (such as progressive coverage during the phasing-in period) since these will depend on the design features and implementation arrangements for the respective programmes, and are therefore still unknown. Since implementation can only be rolled out progressively in practice, the estimates displayed in Chapter 4 should be considered as "conservative" or pessimistic.

[4] It is thus assumed implicitly that the decreasing trend in poverty prevalence rates assumed is mainly a result of economic development, and not a direct consequence of the proposed programmes. It is important to note that the assumed development of poverty prevalence rates is a major driver of the cost projections presented in this document.

value estimated by the World Bank (see Annex, section A.4). It is assumed that benefits are indexed to the CPI and adjusted on a yearly basis to account for the loss of purchasing power due to price inflation.[5] The RFPL as projected for the year 2012 amounts to about KHR 94,000 (~US$22.50) per month.

Administration costs. Programme administration costs have been tentatively assumed at 10 per cent of benefit expenditure.[6] This should be understood as a working assumption. The scope of expenditure to incur for programme administration and benefit delivery should be reassessed when institutional responsibilities have been assigned and a benefit delivery mechanism has been adopted. It is further assumed that the costs related to targeting are covered under a separate programme; they are therefore not included in the cost estimates presented. Since a targeting mechanism (ID-Poor) is already in place and targeting is required for different programmes (which could potentially operate concurrently), the cost for targeting should not be imputed to a single programme.

4.1. Objective 1: Food security and emergency assistance

The cost projections relating to policy options 1 and 2 (cash transfers to the poor) are presented in table 4.1. The total number of poor in the year 2012 is estimated at 3.54 million, including 1.94 extremely poor (ID-Poor 1) and 1.51 million poor (ID-Poor 2). For policy option 1, the benefit amount is assumed at 60 per cent of the rural poverty line, or equal to KHR 56,000 (~US$13.40) per month, totalling KHR 672,000 (~US$161) per beneficiary per year. Total programme expenditure for the year 2012, including administration cost, is estimated at KHR 1.44 trillion (US$343 million), an amount equivalent to about 2.5 per cent of GDP. Due to the projected decline in poverty and sustained GDP growth, the future cost of the programme is projected to decrease to about 0.7 per cent of GDP by 2020. Although this remains sizable, it nevertheless shows that the elimination of extreme poverty through income transfer schemes may become a realistic possibility before the end of this decade.

Under policy option 2, the benefit amount is assumed at 80 per cent of the RFPL (KHR 75,000 or about US$18 per month in 2012) for those extremely poor, and at 40 per cent of RFPL (KHR 37,500 or about US$9 per month in 2012) for the remainder of the poor. Total programme expenditure for the year 2012 is estimated at KHR 2.67 trillion (US$638 million), an amount equivalent to about approximately 4.7 per cent of GDP. According to the assumptions used, the cost of the programme is projected to decrease to about 1.5 per cent of GDP by the year 2020.

[5] CPI-indexation is considered the obvious choice for projecting the food poverty line, although the development of food prices may deviate from overall consumer prices as a result of economic and/or climatic shocks. Furthermore, it is noted that CPI-indexation of benefits does not prevent a widening of income disparities, and may not therefore be deemed sufficient or politically sustainable over the long term.

[6] Administration costs are generally higher for targeted programmes, due to the costs related to the identification of beneficiaries. Since ID-Poor is already in place in Cambodia, and funded through ODA, administration costs for policy options comprising targeted benefits have been assumed at the same level as for universal ones (i.e. 10 per cent).

Table 4.1. Financial projections, policy options 1 and 2: Ensuring food security for the poor

	2012	2013	2014	2015	2016	2017	2018	2019	2020
ID-Poor population (millions)									
ID-Poor 1	1.94	1.83	1.71	1.58	1.45	1.32	1.18	1.04	0.90
ID-Poor 1 and 2	3.45	3.31	3.15	2.99	2.83	2.66	2.48	2.30	2.11
Projected number of beneficiaries (millions)									
Option 1	1.94	1.83	1.71	1.58	1.45	1.32	1.18	1.04	0.90
Option 2	3.45	3.31	3.15	2.99	2.83	2.66	2.48	2.30	2.11
Annual benefit amount per beneficiary (KHR/year)									
Option 1	672 000	696 864	717 770	739 303	761 482	784 327	807 856	832 092	857 055
Option 2(a)[1]	900 000	933 300	961 299	990 138	1 019 842	1 050 437	1 081 950	1 114 409	1 147 841
Option 2(b)[2]	450 000	466 650	480 650	495 069	509 921	525 219	540 975	557 205	573 921
Total expenditure (KHR billions)[3]									
Option 1	1 435	1 399	1 347	1 286	1 217	1 139	1 052	954	845
Option 2	2 671	2 634	2 569	2 492	2 402	2 298	2 180	2 047	1 896
Total expenditure (US$ millions)[3]									
Option 1	342.8	334.4	321.8	307.3	290.9	272.3	251.4	228.0	202.0
Option 2	638.2	629.5	613.9	595.4	573.9	549.2	521.0	489.1	453.1
Programme expenditure in % of GDP									
Option 1	2.50	2.22	1.94	1.67	1.43	1.22	1.02	0.84	0.68
Option 2	4.66	4.18	3.70	3.24	2.82	2.45	2.12	1.81	1.53

[1] Option 2(a) relates to the benefits provided to ID-Poor 1 beneficiaries under policy option 2. [2] Option 2(b) relates to the benefits provided to ID-Poor 2 beneficiaries under policy option 2. [3] Including administration costs assumed at 10 per cent of benefit expenditure.

It should be stressed that the above projections are considered conservative. Providing cash transfers to the poor would stimulate the local economy in rural areas and help lift the poor out of the poverty trap. Given the expected impact that cash transfers would have on the livelihood of the poor, the proposed programmes would help to consolidate the assumed trend of decreasing poverty prevalence rates in the future.

4.2. Objective 2: Reducing the vulnerability of children and mothers

The results of the projections relating to the three policy options 3, 4, and 5 proposed under NSPS objective 2 are displayed in table 4.2 for the period 2012-2020.

For policy option 3 (cash transfers for pregnant women who are poor), it can be observed that the number of pregnancies among the poor is projected at 84,500 for the year 2012 (see Annex, section A.5). The benefit amount is assumed at 80 per cent of the rural poverty line, equal to KHR 75,000 (~US$18) per month in 2012 and payable for six months, totaling KHR 450,000 (~US$108) per beneficiary. Total programme expenditure for the year 2012, including administration costs, is estimated at about KHR 42 billion (~US$10 million), an amount equivalent to about 0.07 per cent of GDP. Due to the projected decline in both poverty and fertility rates, and the assumed expansion of GDP, the overall cost of the programme is projected to decrease swiftly to 0.02 per cent of GDP by 2020.

For policy option 4 (cash transfers for poor children aged 0–2), the total number of beneficiaries is estimated at approximately 266,000 in the year 2012. Due to the expected decrease in poverty and fertility, the number of beneficiaries is projected to decrease to about half that number by the year 2020. The benefit amount is assumed at 60 per cent of the rural poverty line, i.e. KHR 56,000 (~US$13.40) per month in 2012, or about KHR 672,000 (~US$161) per year and per child. Total programme expenditure for the year 2012 is estimated at KHR 197 billion (~US$47 million), an amount equivalent to

about approximately 0.34 per cent of GDP. By the end of the projection period (2020) the total cost of the programme is projected to decrease to approximately 0.10 per cent of GDP.

For policy option 5 (cash transfers for ID-poor children aged 6-11), the total number of beneficiaries is estimated at approximately 418,000 in the year 2012, to decrease gradually to about 251,000 by the year 2020. The benefit amount is assumed at 60 per cent of the rural poverty line, i.e., KHR 56,000 (~US$13.4) per month, or about 672,000 (US$161) per year and per child. Total programme expenditure for the year 2012 is estimated at KHR 309 billion (~US$74 million), an amount equivalent to about approximately 0.54 per cent of GDP. The total cost of the programme is projected to decrease to 0.19 per cent of GDP by the end of the projection period (2020).

Table 4.2. Financial projections, policy options 3, 4, and 5: Cash transfers for poor children and mothers

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Projected number of beneficiaries									
Option 3	84 533	79 596	74 503	69 282	64 769	60 052	55 163	50 135	45 039
Option 4	266 515	247 836	232 214	216 545	200 849	185 150	169 429	153 653	137 865
Option 5	418 154	392 960	363 709	342 458	328 339	312 330	293 398	272 568	251 268
Benefit amount (US$/month)[1]									
Option 3	9.38	9.72	10.01	10.31	10.62	10.94	11.27	11.61	11.96
Option 4	14.00	14.52	14.95	15.40	15.86	16.34	16.83	17.34	17.86
Option 5	14.00	14.52	14.95	15.40	15.86	16.34	16.83	17.34	17.86
Total expenditure (KHR billions)[2]									
Option 3	41.8	40.9	39.4	37.7	36.3	34.7	32.8	30.7	28.4
Option 4	197.0	190.0	183.3	176.1	168.2	159.7	150.6	140.6	130.0
Option 5	309.1	301.2	287.2	278.5	275.0	269.5	260.7	249.5	236.9
Total expenditure (US$ millions)[1, 2]									
Option 3	10.0	9.8	9.4	9.0	8.7	8.3	7.8	7.3	6.8
Option 4	47.1	45.4	43.8	42.1	40.2	38.2	36.0	33.6	31.1
Option 5	73.9	72.0	68.6	66.5	65.7	64.4	62.3	59.6	56.6
Programme expenditure in % of GDP									
Option 3	0.07	0.06	0.06	0.05	0.04	0.04	0.03	0.03	0.02
Option 4	0.34	0.30	0.26	0.23	0.20	0.17	0.15	0.12	0.10
Option 5	0.54	0.48	0.41	0.36	0.32	0.29	0.25	0.22	0.19

[1] For option 3 it is noted that benefit is payable for 6 months only. [2] Including administration costs assumed at 10 per cent of benefit expenditure.

Projection results relating to the universal benefits assumed for policy options 3u, 4u, and 5u are displayed in table 4.3. It can be observed that the total cost of the respective programmes in the year 2012 is estimated at about 0.3, 1.3, and 2.2 per cent of GDP. By the year 2020, the total cost will have decreased to 0.15, 0.7, and 1.4 per cent of GDP respectively for these policy options.

Table 4.3. Financial projections, policy options 3u, 4u, and 5u: Universal cash transfer benefits for children and mothers

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Projected number of beneficiaries (millions)									
Option 3u	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.32
Option 4u	1.00	0.99	0.99	0.98	0.98	0.98	0.98	0.97	0.96
Option 5u	1.70	1.69	1.67	1.68	1.73	1.78	1.82	1.86	1.90
Benefit amount (US$/month)									
Option 3u	18.75	9.72	10.01	10.31	10.62	10.94	11.27	11.61	11.96
Option 4u	14.00	14.52	14.95	15.40	15.86	16.34	16.83	17.34	17.86
Option 5u	14.00	14.52	14.95	15.40	15.86	16.34	16.83	17.34	17.86
Total expenditure (KHR billions)[1]									
Option 3u	164	169	174	178	184	190	195	199	203
Option 4u	738	756	778	800	823	845	867	889	910
Option 5u	1 256	1 298	1 317	1 364	1 448	1 535	1 618	1 699	1 788
Total expenditure (US$ millions)[1]									
Option 3u	39.1	40.5	41.5	42.5	44.0	45.3	46.5	47.6	48.6
Option 4u	176.4	180.7	186.0	191.3	196.6	201.9	207.2	212.4	217.3
Option 5u	300.1	310.3	314.6	325.8	346.1	366.8	386.5	406.0	427.2
Programme expenditure in % of GDP									
Option 3u	0.29	0.27	0.25	0.23	0.22	0.20	0.19	0.18	0.16
Option 4u	1.29	1.20	1.12	1.04	0.97	0.90	0.84	0.79	0.73
Option 5u	2.19	2.06	1.89	1.77	1.70	1.64	1.57	1.50	1.44

[1] Including administration cost assumed at 10 per cent of benefit expenditure.

4.3. Objective 3: Addressing seasonal unemployment

The cost projections relating to policy options 6 and 7 (public works programmes, PWPs) are presented in table 4.4. The total number of poor households in the year 2012 is projected at about 751,000, comprising about 422,000 ID-Poor 1 households and 379,000 ID-Poor 2 households (see Annex, section A.5).

For the PWP programme proposed under policy option 6, the number of participants is assumed at 10 per cent of poor households, i.e. 42,200 workers in the year 2012. With a daily wage assumed at KHR 10,000 or US$2.40 (in 2012) and payable for 80 days, the total wage payable per worker would amount to KHR 8 million (~US$192) and the wage bill reach KHR 33.8 billion (~US$8.1 million) in aggregate. Assuming the share of non-wage costs at 50 per cent (see Annex, section A.5), this yields a total expenditure of KHR 67.6 billion (~US$16.2 million), or approximately 0.12 per cent of GDP for the year 2012. Due to the projected decrease in poverty and sustained GPD growth, the total cost of the programme is projected to decrease to 0.04 per cent of GDP by the year 2020, assuming a constant participation rate (10 per cent) among ID-Poor 1 households throughout the projection period.

With regard to the PWP programme proposed under policy option 7, the total number of participants is projected at 75,100 workers for the year 2012. Assuming the same wage level and programme duration as for option 6, the overall wage bill would total KHR 60 billion (~US$14.4 million) in the year 2012. With non-wage costs assumed at 50 per cent, this yields a total programme cost of about KHR 120 billion (~US$28.8 million), an amount equivalent to 0.21 per cent of GDP in the year 2012. The total cost of the programme proposed under option 7 is projected to decrease to

0.09 per cent of GDP by the end of the projection period (2020), assuming a constant participation rate of 10 per cent among ID-Poor households.

Table 4.4. Financial projections, policy options 6 and 7: Public works programmes

	2012	2013	2014	2015	2016	2017	2018	2019	2020
ID-Poor households									
ID-Poor 1	421 946	396 834	370 801	343 825	315 926	287 110	257 352	226 633	194 952
ID-Poor 1 & 2	750 958	718 855	685 486	650 812	614 867	577 666	539 157	499 302	458 078
Projected number of participants									
Option 6	42 195	39 683	37 080	34 383	31 593	28 711	25 735	22 663	19 495
Option7	75 096	71 885	68 549	65 081	61 487	57 767	53 916	49 930	45 808
Assumed wage amount, options 6 & 7 (US$)									
Daily wage	2.4	2.5	2.6	2.8	2.9	3.1	3.3	3.4	3.6
Total (80 w/d)	191.2	201.7	211.9	223.4	235.6	248.0	261.0	274.7	289.2
Total expenditure (KHR billions)[1]									
Option 6	67.5	67.0	65.8	64.3	62.3	59.6	56.2	52.1	47.2
Option 7	120.2	121.4	121.6	121.7	121.3	119.9	117.8	114.8	110.9
Total expenditure (US$ millions)[1]									
Option 6	16.1	16.0	15.7	15.4	14.9	14.2	13.4	12.5	11.3
Option 7	28.7	29.0	29.1	29.1	29.0	28.7	28.1	27.4	26.5
Programme expenditure in % of GDP									
Option 6	0.12	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.04
Option 7	0.21	0.19	0.17	0.16	0.14	0.13	0.11	0.10	0.09

[1] Including non-labour costs (capital cost, materials, etc.) and administration costs assumed together at 50 per cent of total cost.

4.4. Objective 4: Extending social health protection

The cost projections relating to policy option 8 (extension of HEFs) are displayed in table 4.5. A detailed description of model features and assumptions is provided in the Annex, section A.6. It must be stressed that the expenditure figures presented in table 4.5 reflect the cost incurred by equity funds under current payment provisions and full coverage assumptions; they do *not* include the cost of supply-side subsidies provided under the national budget.[7]

[7] Since supply-side financing of public health-care providers covers the cost of infrastructure, staff salaries, drugs and basic operation costs, the payments made by equity funds are marginal and reflect only a small share of the overall cost of the medical services provided to poor HEFs. The assessment of supply-side financing requirements lies beyond the scope of this report.

Table 4.5. Financial projections, policy option 8: Extension of health equity funds

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Coverage of HEFs (millions)[1]	3.45	3.31	3.15	2.99	2.83	2.66	2.48	2.30	2.11
Direct costs (US$ millions)	10.99	11.85	12.59	13.26	13.88	14.39	14.78	14.95	14.95
Indirect costs (US$ millions)[2]	2.72	2.94	3.12	3.29	3.44	3.57	3.66	3.70	3.70
Total cost of HEFs (US$ millions)	13.72	14.79	15.71	16.55	17.31	17.96	18.45	18.65	18.66
Cost per capita (US$/year)	3.97	4.47	4.98	5.53	6.12	6.76	7.44	8.12	8.85
Total cost HEFs (% of GDP)	0.10	0.10	0.09	0.09	0.09	0.08	0.07	0.07	0.06

[1] Assumption of full coverage of the poor (ID-Poor 1 & 2) as of the year 2012. [2] Indirect costs are assumed at a constant share (24.8 per cent) of direct costs.

It can be observed that the total cost of HEF coverage of the poor is projected at US$13.7 million for the year 2012, an amount equivalent to about 0.1 per cent of GDP. The relative cost of extended HEF coverage is projected to decrease to 0.06 per cent of GDP by the year 2020, this due to the projected decrease in poverty and the assumption of sustained GDP growth over the period. The average annual cost per capita of HEF coverage is projected to increase from US$3.97 in 2012 to US$8.85 by the year 2020 due to the assumed increase in utilization and inflation of medical costs (see Annex, section A.6).

4.5. Objective 5: Extending social protection for vulnerable groups

The projection results relating to policy options 9, 10, and 11 (social old-age pensions) are displayed in table 4.6 for the period 2012-2020. For policy option 9, it can be observed that the number of elderly aged 70 and above deemed extremely poor is estimated at about 65,000 in the year 2012. This number is projected to decrease to less than 34,000 by 2020 due to the projected decrease in the poverty prevalence rate. With a benefit amount assumed at 100 per cent of the rural food poverty line, the total expenditure of the proposed pension programme is projected at about KHR 80 billion (~US$19 million) for the year 2012, representing about 0.14 per cent of GDP. Due to the projected decrease in poverty rates and high GDP growth assumption, the total expenditure under policy option 8 is projected to decrease to about 0.04 per cent of GDP by the year 2020.

Table 4.6. Financial projections, policy options 9, 10, and 11: Social pensions for the elderly poor

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Projected number of beneficiaries									
Option 9	64 779	61 336	57 712	53 961	50 121	46 227	42 252	38 128	33 754
Option 10	157 218	152 114	147 192	142 313	137 244	131 747	125 679	118 926	111 477
Option 11	229 799	223 860	217 318	210 203	202 579	194 521	185 999	176 851	166 840
Benefit amount (US$/month)									
Option 9	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Option 10	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Option 11	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Total expenditure (KHR billions)[1]									
Option 9	80.4	78.9	76.5	73.7	70.5	66.9	63.0	58.6	53.4
Option 10	195.1	195.7	195.1	194.3	193.0	190.8	187.5	182.7	176.4
Option 11	285.1	288.0	288.0	286.9	284.8	281.7	277.4	271.7	264.0
Total expenditure (US$ millions)[1]									
Option 9	19.2	18.9	18.3	17.6	16.8	16.0	15.1	14.0	12.8
Option 10	46.6	46.8	46.6	46.4	46.1	45.6	44.8	43.7	42.2
Option 11	68.1	68.8	68.8	68.6	68.1	67.3	66.3	64.9	63.1
Programme expenditure in % of GDP									
Option 9	0.14	0.13	0.11	0.10	0.08	0.07	0.06	0.05	0.04
Option 10	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.16	0.14
Option 11	0.50	0.46	0.41	0.37	0.33	0.30	0.27	0.24	0.21

[1] Including administration costs assumed at 10 per cent of benefit expenditure.

The projected number of beneficiaries under policy option 10, i.e. the elderly poor (ID-Poor) aged 65 and above, is estimated at about 157,000 for the year 2012. With a monthly benefit amount set equal to the RFPL at KHR 94,000 (~US$22.50) in 2012, the total expenditure of the programme is estimated at KHR 195 billion (~US$47 million), an amount equivalent to about 0.34 per cent of GDP in 2012. By the year 2020, the total expenditure is projected to decrease to 0.14 per cent of GDP.

For policy option 11, the number of beneficiaries (the elderly among the ID-Poor aged 60 and above) is estimated at about 230,000 for the year 2012, to decrease gradually to about 167,000 by the year 2020. With a monthly benefit amount assumed at 100 per cent of the RFPL, total expenditure in 2012 is projected at KHR 285 billion (US$68 million), representing 0.5 per cent of GDP. Due to the projected decrease in poverty and high GDP growth assumption, total expenditure is projected to decrease to about 0.2 per cent of GDP by 2020.

Projection results regarding policy options 9u, 10u, and 11u (universal old-age pensions) are displayed in table 4.7. It can be observed that for the year 2012 the projected number of beneficiaries at the retirement ages of 70 (option 9u), 65 (option 10u), and 60 (option 11u) totals approximately 400,000, 643,000, and one million respectively. Due to the growing population and population ageing, the number of beneficiaries is projected to increase by the year 2020 to approximately 507,000 (option 9u), 862,000 (option 10u), and 1.36 million (option 11u). The total programme cost for 2012 is estimated at KHR 496 billion (~US$119 million) for retirement age 70 (option 9u), KHR 798 billion (~US$191 million) for retirement age 65 (option 10u), and KHR 1.24 trillion (~US$296 million) for retirement age 60 (option 11u). This is equivalent to 0.9, 1.4, and 2.2 per cent of GDP for policy options 9u, 10u, and 11u respectively. Since the number of beneficiaries is projected to increase, the total cost of the three programmes would increase in real terms over the whole projection period. Due to the high GDP growth assumption, however, their relative

cost would decrease gradually by 2020 to reach amounts equivalent to 0.6, 1.1, and 1.7 per cent of GDP for options 9u, 10u, and 11u respectively.

Table 4.7. Financial projections, policy options 9u, 10u, and 11u: Universal old-age pensions

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Projected number of beneficiaries									
Option 9u	400 128	409 168	418 319	428 063	43 9012	451 976	467 416	485 723	506 769
Option 10u	643 428	662 275	684 562	710 177	738 366	768 111	798 768	830 052	862 443
Option 11u	999 381	1 034 863	1 071 204	1 108 961	1 149 270	1 193 689	1 243 130	1 298 052	1 357 833
Benefit amount (US$/month)									
Option 9u	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Option 10u	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Option 11u	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Total expenditure (KHR billions)[1]									
Option 9u	496.5	526.5	554.4	584.3	617.3	654.6	697.2	746.3	802.0
Option 10u	798.4	852.2	907.3	969.4	1038.2	1112.4	1191.5	1275.3	1364.8
Option 11u	1240.0	1331.6	1419.7	1513.8	1615.9	1728.7	1854.3	1994.3	2148.8
Total expenditure (US$ millions)[1]									
Option 9u	118.6	125.8	132.5	139.6	147.5	156.4	166.6	178.3	191.6
Option 10u	190.8	203.6	216.8	231.6	248.1	265.8	284.7	304.7	326.1
Option 11u	296.3	318.2	339.2	361.7	386.1	413.1	443.1	476.5	513.4
Programme expenditure in % of GDP									
Option 9 u	0.87	0.83	0.80	0.76	0.72	0.70	0.68	0.66	0.65
Option 10u	1.39	1.35	1.31	1.26	1.22	1.19	1.16	1.13	1.10
Option 11u	2.16	2.11	2.04	1.97	1.90	1.84	1.80	1.76	1.73

[1] Including administration costs assumed at 10 per cent of benefit expenditure.

It must be noted that since the share of elderly among Cambodia's population is very low due to the country's tragic history, the cost of a universal pension scheme would be comparatively modest, as the above projections show. Although the cost of a universal scheme probably exceeds the fiscal space that could currently be allocated to such a programme, a targeted social pension programme for the poor may already be within reach.

The results of the projections for policy options 12 and 12u (disability pensions) are displayed in table 4.8 for the period 2012-2020. It can be observed that for policy option 12 (disability pensions for the poor), the total number of beneficiaries is estimated at about 45,000 in the year 2012 (see Annex, section A.5 for assumptions). Due to the projected decrease in the ID-Poor population, the total number of disabled poor is estimated to decrease to about 24,000 by the year 2020. The total expenditure of the programme is estimated at KHR 55.8 billion (US$13.3 million) in 2012, and projected to decrease gradually to about KHR 38 billion (US$9 million) by 2020. In relative terms compared to GDP, it can be observed that total programme expenditure is projected to decrease from 0.10 per cent in the year 2012 to 0.03 per cent of GDP by the year 2020.

Table 4.8. Financial projections, policy options 12 and 12u: Pensions for the disabled

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Projected number of beneficiaries									
Option 12	44 955	42 235	39 535	36 857	34 209	31 593	29 006	26 445	23 904
Option 12u	192 538	192 538	192 538	192 538	192 538	192 538	192 538	192 538	192 538
Benefit amount (US$/month)									
Option 12	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Option 12u	22.5	23.3	24.0	24.7	25.5	26.2	27.0	27.8	28.6
Total expenditure (KHR billions)[1]									
Option 12	55.8	54.3	52.4	50.3	48.1	45.8	43.3	40.6	37.8
Option 12u	238.9	247.7	255.2	262.8	270.7	278.8	287.2	295.8	304.7
Total expenditure (US$ millions)[1]									
Option 12	13.3	13.0	12.5	12.0	11.5	10.9	10.3	9.7	9.0
Option 12u	57.1	59.2	61.0	62.8	64.7	66.6	68.6	70.7	72.8
Programme expenditure in % of GDP									
Option 12	0.10	0.09	0.08	0.07	0.06	0.05	0.04	0.04	0.03
Option 12u	0.42	0.39	0.37	0.34	0.32	0.30	0.28	0.26	0.25

[1] Including administration cost assumed at 10 per cent of benefit expenditure.

For the projections pertaining to policy option 12u (universal disability pension), the total number of beneficiaries is estimated at about 192,500 assumed constant over the projection period (see Annex, section A.5.3). Total expenditure of the programme in the year 2012 is estimated at about KHR 239 billion (~US$57 million), and projected to increase gradually to about KHR 305 billion (~US$73 million) by 2020. Despite the projected increase in expenditure in nominal terms, the relative cost of the programme compared to GDP is projected to decrease from 0.42 per cent in 2012 to 0.25 per cent of GDP by the year 2020.

It is noted that the projected cost of the two programmes is comparatively modest and may be considered affordable in the short to medium term. It must be stressed, however, that the reported number of disabled is comparatively low by international standards, as it is based on a narrow definition of disability.[8] The cost of disability pension programmes depends to a large extent on the qualifying criteria adopted, notably on whether a partial loss of working capacity leads to benefit entitlements. An in-depth assessment of disability-related issues would go beyond the intended scope of this report.

[8] Based mainly on physical impairment.

5. Summary and conclusions

The objective of the assessment presented in this report was to undertake a preliminary costing of the priority social protection programmes outlined in the NSPS. A series of policy options was selected for each strategic objective of the NSPS and their costs were projected over the period 2012-2020. The purpose of costing alternative options was to illustrate the impact of programme design on resource requirements, aiming thereby to support the policy formulation process.

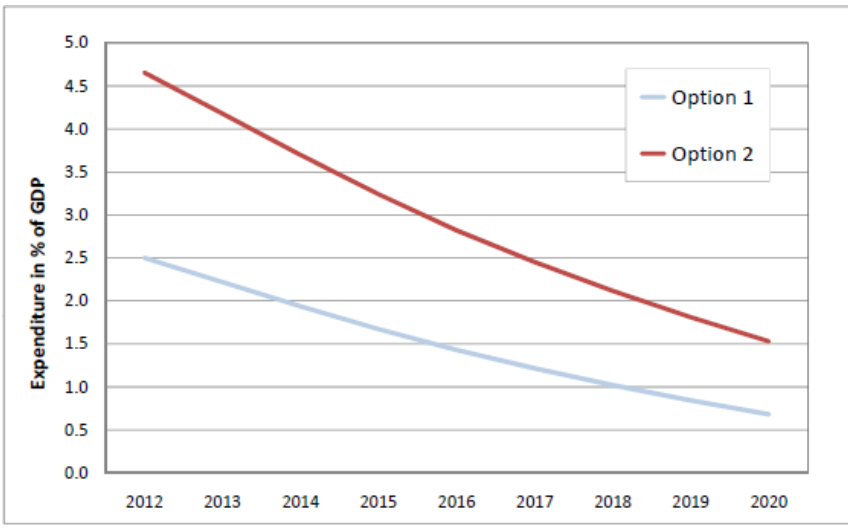
It should be noted that some of the programmes proposed are complementary, while others overlap or reflect alternative provisions. In the case of concurrent implementation of different programmes, it is relevant to consider any possible overlaps and adjust the benefit provisions of the respective programmes accordingly (e.g. between old-age and disability pensions). It is equally relevant to consider cumulative welfare effects on the household in case of the concurrent implementation of complementary programmes. Further assessments will be required that take into account any cross-effects of different interventions once the respective policy instruments have been selected.

The key findings of the financial assessment presented in Chapter 4 are summarized below. It is deemed relevant to distinguish between the following types of interventions: (i) programmes targeting all the poor; (ii) programmes targeting selected vulnerable groups among the poor; and (iii) universal programmes targeting selected vulnerabilities among the whole population.

5.1. Cash transfers for all the poor

Policy options 1 and 2 comprise cash transfers for all the poor, aiming at providing food security and attending to the basic needs of the poor. Despite a trend of decreasing poverty rates in Cambodia, an estimated 3.4 million persons are currently living below the poverty line, of whom an estimated 1.9 million are extremely poor. The projected cost of the two proposed large-scale cash transfer schemes for the poor is illustrated in figure 5.1. It can be observed that the cost of the two programmes would be sizable over the short to medium term. In comparison to GDP, however, the relative cost of the two programmes is projected to decrease rapidly, and a national programme targeting extreme poverty (policy option 1) may become a realistic possibility before the end of the decade. Until then, programmes targeting specific population groups (policy options 3-12) are suitable options, and existing interventions aiming at food security for the poor should be maintained or scaled up if possible. The feasibility of a comprehensive national programme for all the poor will also depend on whether the assumed pace of decline in poverty headcount rates and the assumed pace of economic expansion will materialize during the decade.

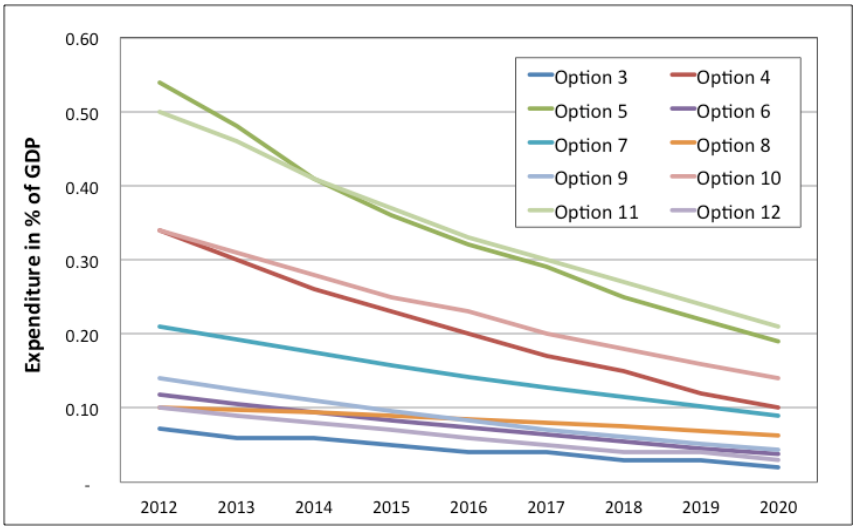
Figure 5.1. Cash transfers for the poor, cost projections, 2012-2020 (percentage of GDP)



5.2. Programmes targeting vulnerable groups among the poor

The projected cost of the proposed programmes targeting specific vulnerable groups among the poor (policy options 3-12) is shown in figure 5.2. It can be observed that for the year 2012, the relative cost of these programmes is estimated at between 0.1 and 0.5 per cent of GDP. For programmes targeting minor groups of the vulnerable, the relative cost is estimated at approximately 0.1 per cent of GDP; this applies to the proposed programmes targeting pregnant women among the poor (option 3), the elderly aged 70 and above and extremely poor (option 9), and the disabled poor (option 12). For the two programmes addressing vulnerabilities that relate to larger target groups among the poor, i.e. primary-school children who are poor (option 5) and the elderly poor aged 60 and above (option 11) the relative cost is estimated at around 0.5 per cent of GDP for the year 2012. By the year 2020, however, their relative cost is expected to have decreased to below 0.2 per cent of GDP.

Figure 5.2. Programmes targeting vulnerable groups among the poor, cost projections, 2012-2020 (percentage of GDP)



The rapid decrease in relative cost for all programmes considered can be explained in large part by the assumptions of (i) a rapidly decreasing poverty headcount rate; and, in

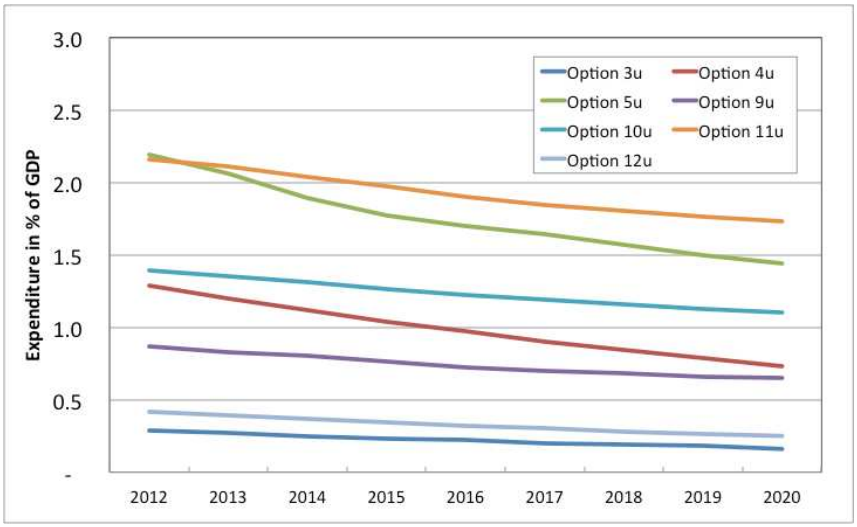
conjunction, (ii) the sustained economic expansion and GDP growth. For the programmes targeting children and pregnant women, the ongoing trend of declining fertility rates further contributes to the projected decrease in relative cost over the projection period.

5.3. Programmes comprising universal benefits

The projected cost of the proposed programmes comprising universal benefits is displayed in figure 5.3. It can be observed that, in comparison to GDP, the relative cost of all selected programmes is projected to decrease gradually over the whole projection period. For programmes targeting pregnant women and children (policy options 3u, 4u, and 5u), the projected decrease in relative cost is largely explained by the ongoing trend of declining fertility rates that is expected to result in a decline of the birth rate and of the child dependency ratio throughout the projection period.

It can further be observed that for the universal old-age pension programmes assessed (options 9u, 10u, and 11u), the projected cost declines at a slower pace throughout 2012-2020 compared to the other universal programmes. With population ageing expected to occur, the age dependency ratio is projected to increase for the three respective retirement ages of 70, 65, and 60. Despite the projected increase in the number of old-age pensioners and the resulting cost increase in real terms, the projected expansion in GDP outweighs this, and the cost ratio to GDP is projected to decrease for the three universal pension programmes, assuming CPI-indexation for pension benefits. The relative cost of a universal pension programme for the disabled is also projected to decrease at a relatively slow pace due to the assumption of a constant disability prevalence rate during 2012-2020.

Figure 5.3. Universal benefits



5.4. Conclusion

The financial projections presented in this report show that new perspectives are emerging in the near to medium-term future for the extension of social protection in Cambodia. In light of the declining trend in poverty prevalence rates and increasing national income, the projections show that realistic possibilities are opening up for the implementation of social protection programmes, particularly those targeting the poor and vulnerable. The planning and implementation of new programmes will, however, require the commitment of the Government and development partners to allocate the financial resources required.

Tight fiscal means have been so far the main constraint, limiting the scope of social protection interventions to the most basic, this alongside the different interventions supported by development partners. With the ongoing expansion of national income and improving revenue generation by the Government, new fiscal space is emerging and providing means for new government projects and the expansion of existing ones. The NSPS provides a strategic framework that should guide the choice and design of new social protection programmes as more resources become available. Since funding will remain constrained in the near future, it is recommended to adopt a step-by-step approach where selected programmes are given priority. In order to ensure their financial sustainability, a careful design of priority programmes and the appropriate sequencing for their implementation will be required.

Table 5.1. Summary of proposed policy options and projection results

Policy option	Programme description	Benefit amount	Type of programme		Beneficiaries year 2012 (millions)	Expenditure year 2012[1] (US$ millions)	Projected cost in % of GDP		
			Targeted	Universal			2012	2016	2020
1	Cash transfers for those extremely poor (ID-Poor 1)	60% of RFPL	X		1.94	342.8	2.50	1.43	0.68
2	Cash transfers for all the poor (ID-Poor 1 & 2)	40/80% of RFPL	X		3.45	638.2	4.66	2.82	1.53
3	Cash transfers for pregnant women who are poor	80% of RFPL	X		0.08	10.0	0.07	0.04	0.02
3u	Universal cash transfers for all pregnant women	80% of RFPL		X	0.33	39.1	0.29	0.22	0.16
4	Cash transfers for poor children aged 0-2	60% of RFPL	X		0.27	47.1	0.34	0.20	0.10
4u	Universal cash transfers for all children aged 0-2	60% of RFPL		X	1.00	176.4	1.29	0.97	0.73
5	Cash transfers for primary-school children who are poor	60% of RFPL	X		0.42	73.9	0.54	0.32	0.19
5u	Universal cash transfers for all primary-school children	60% of RFPL		X	1.70	300.1	2.19	1.70	1.44
6	National public works programmes targeting extremely poor households	KHR 10,000 per day (year 2012)	X		0.04	16.1	0.12	0.07	0.04
7	National public works programmes targeting poor households	KHR 10,000 per day (year 2012)	X		0.08	28.7	0.21	0.14	0.09
8	Extension of health equity funds to all the poor	Medical care (in-kind) and cash allowances	X		3.45	13.7	0.10	0.09	0.06
9	Social age pensions for the elderly poor aged 70+	60% of RFPL	X		0.06	19.2	0.14	0.08	0.04
9u	Universal social age pensions for all elderly aged 70+	100% of RFPL		X	0.40	118.6	0.87	0.72	0.65
10	Social age pensions for the elderly poor aged 65+	100% of RFPL	X		0.16	46.6	0.34	0.23	0.14
10u	Universal social age pensions for all elderly aged 65+	100% of RFPL		X	0.64	190.8	1.39	1.22	1.10
11	Social pensions for the elderly poor aged 60+	100% of RFPL	X		0.23	68.1	0.50	0.33	0.21
11u	Universal social pensions for all elderly aged 60+	100% of RFPL		X	1.00	296.3	2.16	1.90	1.73
12	Social pensions for the disabled poor	100% of RFPL	X		0.04	13.3	0.10	0.06	0.03
12u	Universal social pensions for all disabled	100% of RFPL		X	0.19	57.1	0.42	0.32	0.25

[1] Assuming full programme implementation as of 1 January 2012 (ex-post simulation, hence a hypothetical exercise).

Annex

Model framework and assumptions

A.1. Population

The population figures used in this report are the adjusted figures from the national population census 2008 and related projections (NIS, 2011). According to the adjusted figures, the total mid-year population in the year 2008 is estimated at 13,868,227 persons.[9] The total population for the year 2012 is projected at about 15 million persons, increasing to about 16.7 million by the year 2020 (see table A.1).

Table A.1. Population: Total and selected age groups, projections 2012-2020

(in thousands)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total population	14963	15 184	15 405	15 626	15 848	16 070	16 289	16 505	16 717
Male	7 204	7 320	7 436	7 552	7 668	7 784	7 900	8 015	8 127
Female	7 537	7 642	7 748	7 853	7 959	8 065	8 170	8 275	8 378
Selected age groups									
0-2[1]	999	987	986	984	982	980	976	971	965
6-11[1]	1 699	1 694	1 668	1 677	1 729	1 779	1 820	1 856	1 896
65 +	382	393	406	421	438	456	476	496	518
70 +	241	246	251	256	263	271	280	291	303

[1] Author's estimates based on the data reported by NIS (5-year age groups).

Source: NIS, 2011.

A.2. Labour force and employment

The labour force was projected from the projected population (see table A.1) and the age-specific labour force participation rates reported in the 2008 Census results (NIS, 2009) that are assumed constant over the projection period. Assuming a constant unemployment rate of 1.6 per cent (ibid.) over the projection period yields total employment for the period 2012-2020 (see table A.2).

[9] The initial results of the Population Census 2008 reported a lower figure of 13,395,682 (see NIS, 2009).

Table A.2. Labour market participation rates, employment and unemployment, projections 2012-2020

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Labour market participation rate (%)	78.9	79.2	79.5	79.8	80.2	80.5	80.8	81.1	81.3
Male	81.7	82.1	82.5	82.9	83.4	83.9	84.4	84.8	85.2
Female	76.4	76.6	76.7	76.9	77.1	77.3	77.5	77.6	77.7
Labour force 15+ (thousands)	8 066	8 283	8 495	8 703	8 905	9 099	9 285	9 462	9 631
Male	3 999	4 122	4 242	4 361	4 478	4 590	4 698	4 802	4 901
Female	4 067	4161	4 252	4 341	4 427	4 509	4 587	4 660	4 729
Unemployment rate (15+)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Male	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Female	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Employment 15+ (thousands)	7 934	8 147	8 356	8 560	8 759	8 950	9 133	9 307	9 473
Male	3 940	4 060	4 179	4 296	4 411	4 522	4 628	4 730	4 828
Female	3 994	4 086	4 176	4 263	4 348	4 428	4 505	4 576	4 644

Source: Author's projections based on Census data (NIS, 2009).

It can be observed that the total labour force is projected to increase from an estimated 8 million to about 9.6 million by the year 2020. At the constant unemployment rate assumed, total employment would increase from 7.9 million in 2012 to about 9.5 million in 2020.

A.3. GDP, prices and wages

The projection of the gross domestic product (GDP) is required as a benchmark in order to compare the cost of individual programmes to national output. For the period 2012-2016, the estimated GDP figures are based on IMF projections in 2011 (IMF, 2012). For subsequent years, GDP is derived from total employment and value added per employed, assuming a constant increase in real value added per worker at 4.5 per cent per year for the period 2017-2020 (see table A.3)

Table A.3. Gross domestic product, projections 2012-2020

	2012	2013	2014	2015	2016	2017	2018	2019	2020
GDP at current prices (KHR billions)	57 370	63 057	69 495	76 928	85 179	93 759	103 056	113 120	1124 028
Change (% p.a.)	10.6	9.9	10.2	10.7	10.7	10.1	9.9	9.8	9.6
GDP deflator	8 066	8 283	8 495	8 703	8 905	9 099	9 285	9 462	9 631
Change (% p.a.)	3.8	3.3	3.2	3.1	3.1	3.1	3.1	3.1	3.1
GDP nominal/employed (KHR millions)	7.231	7.740	8.318	8.987	9.725	10.476	11.285	12.156	13.094
Change (% p.a.)	7.6	7.0	7.5	8.1	8.2	7.7	7.7	7.7	7.7
Change in real terms (% p.a.)	3.6	3.6	4.2	4.8	5.0	4.5	4.5	4.5	4.5

Source: IMF, and author's assumptions.

The future evolution of price and wage levels is equally relevant for the projection of nominal expenditure of the different programmes. The projected evolution of the consumer price index (CPI) is based on recent IMF projections in 2011 (see table A.4). For the

evolution of wages, it is assumed that the average national real wage will increase at half (50 per cent) the projected annual rates of labour productivity increases.[10]

Table A.4. Consumer price index (CPI) and wage inflation index, projections 2012-2020

	2012	2013	2014	2015	2016	2017	2018	2019	2020
CPI									
Change (% p.a.)[1]	4.3	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Wage index									
Change in real terms (% p.a.)	1.8	1.8	2.1	2.4	2.5	2.3	2.3	2.3	2.3
Change in nominal terms (% p.a.)	6.2	5.6	5.1	5.5	5.6	5.3	5.3	5.3	5.3

[1] Annual average of year-on-year changes.

Source: IMF, and author's assumptions.

A.4. Poverty assumptions

The Ministry of Planning (MOP) has been estimating poverty figures since 1994 with support from development partners, mainly the World Bank. Baseline poverty estimates were prepared initially using data from the first broad consumption survey, the 1993/94 Socio-Economic Survey of Cambodia (SESC) (see Prescott and Pradhan, 1997). Updated poverty estimates were prepared based on the data from the Cambodia Socio-Economic Survey (CSES), this in 1997, 2004, and 2007, and, on a preliminary basis, for the years 2008 and 2009 (see MOP, 1998 and Knowles, 2005, 2009).[11] The methodology for estimating poverty has evolved over time. Since 2004, poverty estimates have been derived consistently based on household consumption as reported by the CSES and a carefully determined threshold or poverty line (see section A.4.1).

The ID-Poor project was implemented by the MOP in cooperation with GIZ, and aims at identifying individual households throughout the country that are considered extremely poor (ID-Poor 1) and poor (ID-Poor 2). A special committee is convened in each village to carry out the identification process. The poverty assessment in itself is a participatory process, comprising a self-assessment of households via a detailed questionnaire about income sources, dwelling, asset ownership, and others. Answers are scored and based on the total scores obtained; the village committee determines which households qualify as extremely poor (ID-Poor 1) and poor (ID-Poor 2).

The two poverty classes ID-Poor 1 and ID-Poor 2 are comparable to the population subgroups defined by the two poverty lines, although they are determined by a different methodology. It is assumed in this report that the assumed poverty headcount rates for extreme poverty and poverty, as determined through the CSES, represent the headcount rates for the populations classified as ID-Poor 1 (extremely poor) and ID-Poor 2 (poor).

A.4.1. The poverty line

The poverty line is the benchmark for estimating poverty. The food poverty line reflects the market cost of basic nutritional requirements set at 2,100 calories per person per day,

[10] "Labour productivity" refers here to value added per worker. This implies that the remaining 50 per cent of labour productivity gains will be shared between the other production factors: capital, land, and enterprise.

[11] At the time of writing, preliminary estimates for the years 2008 and 2009 have not yet been published or endorsed by the MOP.

whereas the total poverty line comprises, in addition to basic food consumption, the cost of essential goods and services, such as clothing, housing, transportation and health care. Based on the consumption basket of the year 2004, non-food items represent about 20 per cent of the overall consumption basket (table A.5).

Table A.5. Poverty lines for Cambodia, 1993-2009

	1993/1994	2004	2007	2009[1]
Food poverty line				
Phnom Penh	1 181	1 782	2 445	3 395
Other urban	1 000	1 568	2 274	2 907
Rural	886	1 389	1 965	2 721
Total poverty line				
Phnom Penh	1 574	2 351	3 092	4 185
Other urban	1 269	1 952	2 704	3 438
Rural	1 122	1 753	2 367	3 213

[1] Preliminary World Bank estimates based on data from the Cambodia Socio-Economic Survey (CSES) 2009.

Sources: MOP, World Bank.

Since poverty is predominantly rural in Cambodia, the rural poverty line is used as the main benchmark for setting benefit levels. The poverty line has been projected based on the assumed development of consumer prices as measured by the CPI (see table A.4). It can be observed that for the same consumption basket used in 2009, the food poverty line is projected to increase to about KHR 94,000 (US$22.50) by the year 2012. Over the whole period 2009-2020, the food poverty line is projected to increase from about KHR 82,000 (US$19.5) to about KHR 120,000 (US$28.5) whereas the total poverty line is projected to increase from KHR 96,000 (US$23.0) to about KHR 140,000 (US$33.6), as shown in table A.6.

Table A.6. Rural poverty lines, projections 2009-20201 [1]

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Daily amount												
Food poverty line	2 721	2 830	2 988	3 117	3 232	3 329	3 429	3 532	3 638	3 747	3 859	3 975
Total poverty line	3 213	3 341	3 528	3 680	3 816	3 931	4 049	4 170	4 296	4 424	4 557	4 694
Monthly (KHR thousands)[2]												
Food poverty line	81.6	84.9	89.6	93.5	97.0	99.9	102.9	106.0	109.1	112.4	115.8	119.3
Total poverty line	96.4	100.2	105.8	110.4	114.5	117.9	121.5	125.1	128.9	132.7	136.7	140.8
Monthly (US$)[3]												
Food poverty line	19.5	20.3	21.4	22.3	23.2	23.9	24.6	25.3	26.1	26.9	27.7	28.5
Total poverty line	23.0	23.9	25.3	26.4	27.4	28.2	29.0	29.9	30.8	31.7	32.7	33.6

[1] Daily amount; projection based on the projected evolution of the CPI (see table A.4). [2] At 30 days/month. [3] At KHR 4,185/US$1.

A.4.2. The poverty headcount rate

According to the latest World Bank estimates (from the Cambodia Socio-Economic Survey 2009), the poverty headcount rate for total poverty may have decreased to 15 per cent of the population and to 7 per cent for extreme poverty. These preliminary estimates suggest a marked decrease in the poverty incidence rate since 2007. Since this trend has yet to be confirmed, caution is recommended.

Furthermore, poverty figures derived from national consumption surveys are only partly relevant in the given context, since the statistical definition of poverty may be inconsistent with the poverty-defining criteria used for the poverty assessment at village level (e.g. by

ID-Poor). Since a targeting mechanism is required, the number of persons or households qualifying under the given criteria is relevant. Sample data from the ID-Poor database (2010) suggest for ID-Poor 1 an estimated headcount rate at 12.7 per cent, whereas the headcount rate for ID-Poor 2 was estimated at 14.2 per cent, putting the total headcount rate for ID-Poor at 26.9 per cent (see ILO, 2012).

A poverty projection for the period 2008-2010 was undertaken by the Government during the Mid-Term Review of the National Strategic Development Plan (RGC, 2011b), suggesting for the total poverty rate a linear decrease to 26.1 per cent in 2010 from 30.1 per cent in 2007, and to 15.1 per cent from 18 per cent for extreme poverty. Hence it was assumed that the poverty headcount rate would decrease by about 1 percentage point per year (–0.97 per cent) for extreme poverty, and by about 0.4 percentage point (– 0.37 per cent) for non-extreme poverty. Applying the same trend for future years (2012-2020) yields a medium-term projection for the poverty headcount rate (see table A.7). According to these assumptions the total poverty prevalence rate would decrease to 12.8 per cent by 2020 and the extreme poverty prevalence rate to 5.4 per cent. The distribution of the poor by sex was assumed based on an ID-Poor data sample (see ILO, 2012).

Table A.7. Poverty prevalence rate, projections 2010-2020 (percentage of population)

	2010[1]	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total poverty	26.1	24.8	23.4	22.1	20.8	19.4	18.1	16.8	15.4	14.1	12.8
Male	25.3	24.0	22.7	21.4	20.1	18.8	17.6	16.3	15.0	13.7	12.4
Female	26.9	25.5	24.1	22.8	21.4	20.0	18.6	17.2	15.9	14.5	13.1
Extreme poverty	15.1	14.1	13.2	12.2	11.2	10.3	9.3	8.3	7.4	6.4	5.4
Male	14.5	13.6	12.7	11.7	10.8	9.9	8.9	8.0	7.1	6.2	5.2
Female	15.6	14.6	13.6	12.6	11.6	10.6	9.6	8.6	7.6	6.6	5.6
Non-extreme poverty	11.0	10.6	10.3	9.9	9.5	9.2	8.8	8.4	8.1	7.7	7.3
Male	10.8	10.4	10.0	9.7	9.3	9.0	8.6	8.2	7.9	7.5	7.2
Female	11.2	10.9	10.5	10.1	9.7	9.4	9.0	8.6	8.2	7.9	7.5

See RGC, 2011b; trend assumed accordingly.

Applying the headcount rates in table A.7 to the projected population (table A.1) yields a projection of the poverty headcount for the respective period (see table A.8). It can be observed that, based on the assumptions outlined above, the total number of poor is projected to decrease from about 3.5 million in 2012 to about 2.1 million by the year 2020. The number of extremely poor is projected to decrease from an estimated 1.9 million in 2012 to about 0.9 million in 2020.

Table A.8. Poverty headcount, projections 2010-2020

(thousand persons)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total poor	3 454	3 307	3 153	2 994	2 828	2 657	2 480	2 297	2 107
Male	1 636	1 568	1 497	1 423	1 346	1 266	1 183	1 097	1 008
Female	1 818	1 739	1 656	1 571	1 482	1 391	1 297	1 200	1 099
Extremely poor (ID-Poor 1)	1 941	1 825	1 706	1 582	1 453	1 321	1 184	1 043	897
Male	913	859	804	746	686	624	560	494	425
Female	1 028	966	902	836	767	696	624	549	472
Not extremely poor (ID-Poor 2)	1 513	1 481	1 448	1 412	1 375	1 337	1 296	1 254	1 210
Male	723	709	693	677	660	642	623	604	583
Female	790	773	754	735	715	695	673	651	627

Source: ILO, 2012.

The distribution of the poor by age group was estimated based on the ID-Poor sample data provided (see ILO, 2012). It is assumed that age-specific headcount rates will decrease in parallel for all age groups, i.e., headcount rates for different age groups will remain in equal proportions over the whole projection period. The assumed age distribution of the poor is shown in table A.9 for the year 2012. It can be observed that, according to these estimates, the total number of poor children under 15 years of age is over 1.1 million, accounting for about 32 per cent of all those poor. The total number of poor women is estimated at about 1.8 million, compared to about 1.6 million poor men.

Table A.9. Poverty headcount by age group and sex, estimate 2012 (thousand persons)

Age group	Poor			Extremely poor			Not extremely poor		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
0-4	420.0	212.8	207.2	250.2	127.0	123.2	169.8	85.8	84.0
5-9	363.6	185.4	178.2	215.9	109.9	105.9	147.7	75.4	72.3
10-14	340.9	173.6	167.2	197.3	101.1	96.2	143.5	72.5	71.0
15-19	375.1	191.0	184.0	205.3	104.8	100.5	169.8	86.2	83.5
20-24	396.8	197.7	199.1	210.7	104.3	106.3	186.2	93.4	92.8
25-29	371.6	176.8	194.8	200.3	95.1	105.2	171.3	81.7	89.6
30-34	303.4	145.7	157.7	168.3	79.7	88.7	135.1	66.0	69.0
35-39	147.3	67.2	80.1	83.1	37.0	46.0	64.2	30.2	34.0
40-44	168.7	75.2	93.5	93.9	41.0	52.8	74.9	34.2	40.7
45-49	144.4	62.5	81.9	78.6	33.5	45.1	65.7	29.0	36.8
50-54	108.1	43.6	64.5	56.6	22.2	34.4	51.5	21.4	30.1
55-59	84.7	27.1	57.6	44.9	13.7	31.2	39.8	13.4	26.4
60-64	72.6	23.0	49.6	40.0	11.9	28.0	32.6	11.1	21.5
65-69	53.4	17.7	35.7	31.1	9.5	21.6	22.3	8.2	14.1
70-74	44.1	15.1	29.0	26.7	8.6	18.2	17.3	6.5	10.8
75+	59.8	21.4	38.3	38.0	13.1	24.9	21.7	8.3	13.4
All ages	3 454	1 636	1 818	1 941	913	1 028	1 513	723	790

Source: ILO, 2012.

A.5. Programme-specific assumptions

A.5.1. Policy options 3/3u

To estimate the number of pregnant women entitled to benefits under policy option 3, the age-specific fertility rates for the reproductive age groups were projected based on the projected evolution of the total fertility rate (TFR), as shown in table A.10. The number of childbirths was obtained by applying the projected age-specific fertility rates to the respective female population cohorts as given by the population projection (NIS, 2011).

Table A.10. Fertility rates by age group and total fertility rate (TFR), projections 2012-2020[1]

Age group	2012	2013	2014	2015	2016	2017	2018	2019	2020
15-20	0.029	0.029	0.028	0.027	0.027	0.026	0.026	0.025	0.025
20-24	0.130	0.127	0.124	0.120	0.118	0.116	0.114	0.113	0.111
25-29	0.137	0.134	0.130	0.126	0.124	0.122	0.120	0.118	0.116
30-34	0.105	0.102	0.100	0.097	0.095	0.094	0.092	0.091	0.089
35-39	0.073	0.071	0.069	0.067	0.066	0.065	0.064	0.063	0.062
40-44	0.035	0.034	0.033	0.032	0.031	0.031	0.030	0.030	0.029
45-49	0.009	0.009	0.009	0.008	0.008	0.008	0.008	0.008	0.008
TFR	2.594	2.526	2.458	2.39	2.352	2.314	2.276	2.238	2.2

[1] Based on age-pattern estimated for the year 2008 (NIS, 2011), assuming a proportional decrease of age-specific rates in line with the decrease of the TFR.

Source: Author's calculation based on TFR as projected by NIS (see NIS, 2011)

A.5.2. Policy options 6 and 7

For the proposed public works programmes (options 6 and 7), the daily wage has been assumed at KHR 10,000 (~US$ 2.40) for the year 2012 based on the PWP programme design proposed by the ILO (see ILO, 2010). In the proposed implementation plan, non-labour inputs were estimated at 40-60 per cent of total programme expenditure. It is therefore assumed for both policy options that labour inputs would amount to 50 per cent of total programme cost.

A.5.3. Policy options 12/12u

According to the last population census, the total number of disabled was reported at 192,538 persons in 2008 (see table A.11). Compared to the total population, this figure yields a national disability prevalence rate of 1.44 per cent.

Table A.11 shows the distribution of disability by age group and respective prevalence rates. For a sizable share of the disabled, the origin of their impairment is believed to be war-related, in particularly for the older age cohorts. The prevalence rate is therefore expected to decrease in the future. As no data could be made available on the incidence rate of new cases, it has been assumed tentatively that the total number of disabled persons will not increase in the future but remain constant in absolute terms. This implies that the disability prevalence rate in the total population would decrease from an estimated 1.44 per cent in 2008 to 1.16 per cent in 2020 (i.e. by 19 per cent in relative terms), which seems both plausible and yet conservative. [12]

The number of disabled persons among the ID-Poor population has been estimated by applying the age-specific prevalence rates to the respective age cohorts of the poor. According to CSES 2007 data, the disability prevalence rate among the poor does not substantially differ from the overall national rate. [13] Based on this assumption, the total number of disabled in the ID-Poor population has been estimated at about 44,955 for the year 2012.

[12] A more accurate modelling of the disability prevalence rate would require detailed data on disability incidence rates by age (i.e. new cases) and age-specific mortality rates for the existing pool of disabled.

[13] According to the data from CSES 2007, the rate of self-declared disabilities is more or less constant across the five consumption quintiles.

Table A.11. Disability prevalence rate by age group and sex, 2008

Age group	**Disabled** (number of persons)			**Prevalence rate** (% of population)		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
0-4	7 952	4 281	3 671	0.58	0.61	0.55
5-9	11 201	6 233	4 968	0.76	0.83	0.69
10-14	14 775	8 609	6 166	0.88	1.00	0.76
15-19	17 865	10 163	7 702	1.10	1.22	0.98
20-24	16 270	9 128	7 142	1.19	1.36	1.02
25-29	14 596	8 075	6 521	1.18	1.33	1.04
30-34	9 526	5 394	4 132	1.37	1.61	1.15
35-39	14 350	8 936	5 414	1.70	2.19	1.24
40-44	15 493	9 800	5 693	2.10	2.85	1.45
45-49	15 888	10 345	5 543	2.43	3.46	1.56
50-54	13 013	7 811	5 202	2.65	3.99	1.76
55-59	10 581	5 790	4 791	2.71	3.57	2.09
60-64	7 911	3 999	3 912	2.85	3.43	2.43
65-69	7 173	3 405	3 768	3.31	3.76	2.98
70-74	6 284	2 742	3 542	3.95	4.29	3.73
75+	9 660	3 757	5 903	4.94	4.96	4.93
All ages	108 468	84 070	192 538	1.66	1.22	1.44

Source: 2008 Population Census (NIS, 2009).

A.6. Costing of health care for the poor

For the costing of the extension of health equity funds (HEFs) described in Chapter 4, section 4.4, a model is required in order to establish future cost based on the development of selected variables such as scheme coverage, utilization rates and unit cost of benefits. A summary of model specifications, baseline data and assumptions used for the costing is provided in this section.

A.6.1. Modelling approach

The model that was used for projecting total expenditure of HEFs is based on a mapping of expenditure in the base year (2010). Total expenditure for the year 2010 was disaggregated into its main components, which reflect the different types of costs and benefits. The following components were singled out:

(a) *Direct costs*, comprising the following:

- outpatient contacts at health centres
- outpatient contacts at referral hospitals
- inpatient care, not including admissions for deliveries and surgeries
- inpatient admissions for surgeries
- inpatient admissions for deliveries
- allowances paid for transport cost of patients in case of referrals
- allowances paid to patients for food during admissions

- other allowances paid to patients
- grants paid to providers

(b) *Indirect costs*, comprising mainly administrative and programme development costs

Direct cost components were further disaggregated into number of events and unit cost, and these two factors were projected based on the relevant assumptions (see below). For outpatient and inpatient care, the number of events was projected by multiplying the number of persons covered in a given year by the assumed utilization rate for the respective benefit in the same year (see table A.12). [14]

For the projection of indirect costs, it was assumed that the ratio of indirect to direct cost will remain constant (at 0.248) over the whole projection period.

A.6.2. Baseline data

The baseline data on health expenditures for HEFs was extracted from a data file made available by the Ministry of Health and comprising data aggregates for all equity funds as reported for the year 2010. [15] Since reporting by HEFs is incomplete, sample data was used where required. [16]

A.6.3. Utilization rates

The average utilization rates for outpatient and inpatient care were estimated from the baseline data provided for the year 2010. Utilization rates as reported are currently low by international comparison; this in particular for outpatient care with an estimated 0.59 contacts per person per year on average reported for the year 2010. [17] It is therefore assumed that outpatient utilization rates will increase rapidly over the projection period to reach levels deemed "normal" in the given context by the year 2020 (see table A.12). [18]

[14] The utilization rate reflects the average benefit incidence rate, i.e. the average number of benefits claimed per person per year.

[15] Data provided by Dr Sok Kanha, Department Planning and Health Information, MOH.

[16] Not all HEFs report utilization data.

[17] Possible explanations for the low utilization rates observed for outpatient services include the following: incomplete reporting by both providers and HEFs, access barriers of any sort that may remain, lack of awareness regarding entitlements by the poor, preference for alternative and more convenient treatment options (e.g. access to low-cost drug vendors operating locally), and phasing-in inertia referring to the time lag required before behavioural changes sought fully materialize.

[18] A common benchmark for health care utilization rates in developing countries is two contacts per person p.a. for outpatient care and 0.05 admissions per person p.a. for inpatient care. Since utilization rates tend to increase over time, the target rate (2020) for inpatient care was set higher at 0.6 admissions per person per year for the year 2020, assuming an annual increase of 2.5 per cent p.a. from the year 2010.

Table A.12. Health-care service utilization rates, assumptions 2010-2020

	2010[1]	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outpatient care[2]	0.59	0.73	0.87	1.01	1.15	1.30	1.44	1.58	1.72	1.86	2.00
Health centre	0.56	0.69	0.82	0.95	1.09	1.22	1.35	1.49	1.62	1.75	1.88
Referral hospital	0.03	0.04	0.05	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.12
Inpatient care[3]	0.047	0.048	0.050	0.051	0.052	0.054	0.055	0.056	0.057	0.059	0.060
Minor cases	0.044	0.046	0.047	0.048	0.049	0.051	0.052	0.053	0.054	0.055	0.057
Surgeries	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

[1] Actual figures for the year 2010; estimated from the data provided by MOH. [2] The share of outpatient care cases treated at referral hospitals is assumed constant at 5.9 per cent of total contacts (see also footnote 18). [3] Excluding deliveries, the share of surgeries is estimated constant at 5.6 per cent of all admissions (see also footnote 18).

Source: Author's projections based on MOH data (2012).

For deliveries, inpatient utilization rates were obtained by multiplying the projected number of childbirths among the poor (see section A.5.1) by the rate of institutional deliveries. The latter is assumed to increase gradually from 70 per cent in the year 2012 to 100 per cent by the year 2018 (see table A.13). [19]

For cash benefits provided to patients, the projected number of cases is assumed equal to the estimated number of cases where the entitlement is granted, notably in the event of referrals to referral hospitals for inpatient cases including deliveries with complications.

Table A.13. Deliveries under HEFs, projections 2012-2020

	2012	2013	2014	2015	2016	2017	2018	2019	2020
ID-Poor females (millions)	1.82	1.74	1.66	1.57	1.48	1.39	1.30	1.20	1.10
Number of childbirths (thousands)[1]	84.5	79.6	74.5	69.3	64.8	60.1	55.2	50.1	45.0
Rate of institutional deliveries (%)[2]	70	75	80	85	90	95	100	100	100
Institutional deliveries (thousands)[3]	59.2	59.7	59.6	58.9	58.3	57.0	55.2	50.1	45.0
Deliveries at health centres	41.4	41.8	41.7	41.2	40.8	39.9	38.6	35.1	31.5
Deliveries at referral hospitals	17.8	17.9	17.9	17.7	17.5	17.1	16.5	15.0	13.5

[1] Author's projection, see section A.5.1. [2] MOH assumptions for the years 2012-2015. [3] Deliveries at health centres are assumed at 70 per cent of total (MOH assumption).

Source: Author's assumptions and projections based on MOH data.

For cash benefits provided to patients, the projected number of cases is assumed equal to the estimated number of cases where the entitlement is granted, notably in the event of referrals to referral hospitals for inpatient cases including deliveries with complications.

A.6.4. Unit costs

The average costs per case incurred by HEFs, i.e. the "unit cost" for the direct cost components, were estimated for the year 2012 based on the data provided by MOH (table A.14). These reflect the new harmonized HEF provider payment rates announced by MOH in 2011 and effective as of 1 January 2012. It must be stressed that the payments made by HEFs do not reflect the full cost of care but only the portion of costs reimbursed to providers by HEFs.

[19] According to MOH projections, the rate of institutional deliveries among the ID-Poor population is projected to increase from 70 per cent in 2012 to 85 per cent in 2015.

For projecting unit costs to incur in the future, the base year (2012) values were adjusted with a medical cost inflation rate assumed equal to the assumed consumer price inflation rate plus 2 per cent; where the latter account for the "technology" factor in medical cost inflation.

Table A.14. Unit costs of HEF benefits, projections 2012-2020

(in US$ per case)	2012[1]	2013	2014	2015	2016	2017	2018	2019	2020
Outpatient care									
Health centre	1.00	1.06	1.11	1.17	1.22	1.28	1.35	1.42	1.49
Referral hospital[2]	1.98	2.10	2.20	2.31	2.43	2.55	2.68	2.81	2.95
Inpatient care									
Minor cases[2]	25.50	26.96	28.30	29.72	31.21	32.77	34.40	36.12	37.93
Surgeries[2]	87.40	92.38	97.00	101.85	106.94	112.29	117.90	123.80	129.99
Deliveries									
Health centre	15.00	15.86	16.65	17.48	18.35	19.27	20.24	21.25	22.31
Referral hospital[2]	25.50	26.96	28.30	29.72	31.21	32.77	34.40	36.12	37.93
Transport allowance[2]	6.93	7.19	7.40	7.62	7.85	8.09	8.33	8.58	8.84
Food allowance[2]	8.12	8.42	8.67	8.93	9.20	9.47	9.76	10.05	10.35
Non-food allowance[2]	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36
Grants to providers[2]	0.48	0.50	0.51	0.53	0.55	0.56	0.58	0.60	0.61

[1] Estimated from revised provider payment rates effective 1 January 2012. [2] Weighted average based on respective share of cases at CPA1, CPA2 and CPA3 hospitals in the year 2010.

Source: Author's estimations from data provided by MOH.

A.6.5. Coverage

According to MOH, the extension of coverage of HEFs to all poor (ID-Poor 1 and 2) will be achieved by the year 2013.[20] For the financial assessment presented in this report (see Chapter 4, section 4.4), full coverage has been assumed as of the year 2012 in order to illustrate the comparative cost of HEFs under full coverage throughout the whole projection period.

A.6.6. Projection results

The projected number of events giving rise to benefit payments is obtained by multiplying the projected coverage by the respective benefit utilization/incidence rates (see table A.15).

[20] Information provided by Dr Sok Kanha, MOH.

Table A.15. Number of events, all HEFs, projections 2012-2020

(in thousands)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outpatient care	3 016.2	3 353.0	3 641.5	3 879.0	4 063.2	4 191.6	4 261.6	4 270.1	4 214.3
Health centre	2 839.7	3 156.8	3 428.4	3 652.0	3 825.4	3 946.3	4 012.2	4 020.2	3 967.7
Referral hospital	176.5	196.2	213.1	227.0	237.8	245.3	249.4	249.9	246.6
Inpatient care	171.7	168.6	164.8	160.4	155.1	149.2	142.4	134.9	126.4
Minor cases	162.0	159.1	155.6	151.3	146.4	140.8	134.4	127.3	119.3
Surgeries	9.7	9.5	9.3	9.0	8.7	8.4	8.0	7.6	7.1
Deliveries	59.2	59.7	59.6	58.9	58.3	57.0	55.2	50.1	45.0
Health centre	41.4	41.8	41.7	41.2	40.8	39.9	38.6	35.1	31.5
Referral hospital	17.8	17.9	17.9	17.7	17.5	17.1	16.5	15.0	13.5
Transport allowance[1]	110.9	109.4	107.3	104.6	101.6	98.0	93.8	88.2	82.1
Food allowance[1]	110.9	109.4	107.3	104.6	101.6	98.0	93.8	88.2	82.1
Non-food allowance[1]	110.9	109.4	107.3	104.6	101.6	98.0	93.8	88.2	82.1
Grants to providers[1]	110.9	109.4	107.3	104.6	101.6	98.0	93.8	88.2	82.1

[1] Estimated number of referrals, assuming referral rates constant over the whole projection period.

Source: ILO.

The projected cost of direct benefits is obtained by multiplying for each year the projected number of events (table A.15) by the projected unit cost for the respective benefits (table A.14). The total expenditure for direct costs is given by the sum of the different cost components in each year (table A.16).

Table A.16. Expenditure for direct costs, all HEFs, projections 2012-2020 (US$ thousands)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outpatient care	3 189.8	3 748.2	4 274.2	4 780.6	5 258.0	5 695.4	6 080.0	6 396.7	6 628.9
Health centre	2 839.7	3 336.7	3 805.0	4 255.9	4 680.8	5 070.2	5 412.5	5 694.5	5 901.2
Referral hospital	350.2	411.5	469.2	524.8	577.2	625.2	667.4	702.2	727.7
Inpatient care	4 977.0	5 166.2	5 303.3	5 417.0	5 502.8	5 555.8	5 569.5	5 537.1	5 450.9
Minor cases	4 132.0	4 289.1	4 402.9	4 497.3	4 568.6	4 612.6	4 624.0	4 597.1	4 525.5
Surgeries	844.9	877.1	900.3	919.6	934.2	943.2	945.5	940.0	925.4
Deliveries	1 074.0	1 145.3	1 200.7	1 245.6	1 294.6	1 330.4	1 350.7	1 289.0	1 215.9
Health centre	621.3	662.6	694.6	720.6	748.9	769.6	781.4	745.7	703.4
Referral hospital	452.7	482.8	506.1	525.1	545.7	560.8	569.3	543.3	512.5
Transport allowance	768.4	785.9	794.1	797.8	798.1	792.9	781.4	756.7	725.5
Food allowance	899.9	920.5	930.1	934.4	934.8	928.6	915.2	886.2	849.7
Non-food allowance	31.0	31.8	32.1	32.2	32.2	32.0	31.6	30.6	29.3
Grants to providers	53.4	54.6	55.2	55.4	55.4	55.1	54.3	52.6	50.4
Total direct cost	10 994	11 852	12 590	13 263	13 876	14 390	14 783	14 949	14 951

Source: ILO.

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