



CDRI

CAMBODIA'S ANNUAL ECONOMIC **R**EVIEW 2004



Kang Chandaranot
and Brett Ballard



Cambodia's Annual Economic Review

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and

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Responsibility for the ideas, facts and opinions presented in this research paper rests solely with the authors. Their opinions and interpretations do not necessarily reflect the views of the Cambodia Development Resource Institute.

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Foreword

The Cambodia Development Resource Institute is pleased to publish the fourth *Annual Economic Review*. The first *review* was published in 2001 with the intention of providing a comprehensive overview of recent economic experience, and analysis of key macro-economic challenges. In addition, the *AER* reports in greater depth on a specific sectoral or sub-sectoral challenge confronting the economy. In the past these have included modern sector development (garments and tourism), marketing of agricultural cash crops, and private sector growth. In this issue we have focused on the findings of a recent CDRI study on land titling.

Thus, the *CAER 2004* consists of two parts. Part 1 provides an overview of economic performance in 2003, followed by GDP estimates by sectors and by demand (consumption, investment, trade, government). The review then examines changes in money, prices, interest rates and exchange rates before exploring balance of payments and the balance of trade.

The Government of Cambodia is aggressively pursuing a policy of granting land titles in both rural and urban areas to provide security of ownership and help develop a sound land market. Part 2 presents the findings of a recent study on land titling conducted by CDRI. Property rights are key to land use, management practices and investment, and the recent experience of Cambodia in providing land titles provides an opportunity to closely examine this critical area of research. The study not only establishes a clear benchmark to enable future evaluation but also puts forward interesting hypotheses and findings.

We believe that this publication will be of use to both policy makers and analysts of the Cambodian economy. In the future we hope to be able to achieve greater analytical rigour as well as providing short and medium term forecasts of key economic variables. As always, we would like to invite you, our readers, to send us feedback so that we may improve our work in the future.

Larry Strange

Executive Director

Cambodia Development Resource Institute

Introductory Remarks

CDRI attempts every year to produce an annual economic review (AER) of the preceding year. The current review relates to 2003 and begins with an estimate of gross domestic product (GDP). Generally the task of estimating GDP falls on the National Institute of Statistics (NIS). However, the NIS did not publish any GDP estimate for 2003, so that the CDRI figures are in fact the only ones currently available for this year. Other estimates of the GDP growth rate are of course available (e.g. from the IMF, World Bank and ADB) but these are based on forecasts rather than on actual calculations derived from sector and sub-sector specific data.

The growth performance of 2003 is found to be poorer compared to 2002 as key non-agricultural sectors suffered badly in the face of SARS, resulting in reduced tourism and associated incomes. However both the garments industry as well as crop agriculture performed well raising growth rates to around 4.6 percent. All available accounts point to a worsening of economic performance over 2004, fed by an acute drought that reduced agricultural yields to dangerously low levels, as well as sharp shortfalls in fisheries and forestry sub-sectors.

The debate over the future of the garments industry continues to rage with opinions sharply divided from doomsday predictions on the one hand to cautious optimism on the other. Thus, while the IMF paints a bleak scenario with a sharp fall in the growth rate in 2005 (down to 2 percent), the government is more optimistic.

Tourism, the other major source of growth, has rebounded after the setback induced by the SARS epidemic in 2003, with most observers now being optimistic about continued growth in the short to medium term.

Taking a broader view of Cambodian economic performance over the last few years, we note a picture of sharp instability and uncertainty, underscoring the basic weaknesses in its economic structure. Agriculture contributes around a third of the total GDP with Services contributing another third. The remaining third is derived from industry and construction. However, agriculture accounts for the bulk of employment and supports the vast majority of the poor.

Each of the three sectors suffers from severe uncertainties and instability. Thus while agriculture has performed well over the longer term this has mainly been due to area expansion rather than intensification, technological change or higher yields. Poor infrastructure (roads and irrigation systems), weak agricultural extension and credit services have left Cambodian agriculture heavily dependent on weather and rainfall, contributing to severe year-to-year fluctuations in yields and incomes, and very few resources or arrangements to deal with shocks.

The challenge facing industry – largely consisting of garments, is too well known to require detailed exposition. Cambodia's cost of production per unit is considered to be 25-30 percent higher than its competitors in China and Vietnam, a margin that may not be easy to bridge without fundamental economic and governance reforms. Tourism remains vital to the economy although its inherent fickle nature is a potential source of worry. Further, poor integration of the tourism sector with the rest of the economy contributes to rather low value addition while there are numerous negative effects that impose serious costs on the country: sex tourism, unplanned expansion of hotels, guest houses, casinos and trafficking of women and children. It is therefore imperative to explore more stable sources of growth, e.g. in agriculture and processing, and exploiting *domestic* as well as foreign markets.

At the same time it is important to explore every window of opportunity that might allow Cambodia to stabilize and expand on gains already made in industry and tourism. The way forward would involve deepening integration, raising productivity, focusing on greater domestic investment and looking aggressively at new global and regional market opportunities. There is every indication, for example, that a combination of factors may be able to protect the garments industry from de-industrialisation setting in, in 2005. Thus, there is talk of reforming the 'rules of origin' that would serve to facilitate Cambodian garments exports into the European Union, which under current rules remains impossible. In addition there are indications that labour standards and a focus on developing niche markets adopted by the industry, could have a significant impact in retaining market share. A recent survey by the World Bank suggests that major buyers of Cambodian garments are unlikely to shift their orders out of the country over the short to medium term. Membership of WTO could potentially pave the way for new forms of FDI flowing in from countries like Japan.

The immediate future therefore may not be as bleak as often suggested, although potential dangers are very real. The worst-case scenario would be a situation where agriculture suffers from a second year of drought (unlikely in our view), a new avian flu breaks out, and the niche market approach of the garments industry fails. While such a confluence of negative forces cannot be ruled out, it is considered highly unlikely. If this were to occur, GDP growth would in fact be pushed down to well below 2 percent.

At the other extreme, we could have a bumper agricultural harvest next year (not unlikely), a rapid growth in the tourism sector (in keeping with regional trends) and a stable garments industry experiencing positive growth (e.g. because of new EU markets). In this kind of a situation the GDP growth could be quite close to recent levels of 5-6 percent. Is this scenario too far-fetched?

Policy makers and development partners will be watching anxiously over economic developments as these unfold over the next months and years. Our review of the economy in 2003 would be useful in providing a more complete understanding of recent performance for comparison with the data for 2004 and 2005 as these become available.

The report consists of two parts. Part 1 provides an overview of economic performance followed by GDP estimates by sectors and by demand (consumption, investment, trade, government). It then examines changes in key macro-economic variables like money, prices, interest rates and exchange rates before exploring balance of payments and the balance of trade.

There is now wide agreement that the traditional policy of neglecting agriculture and rural development must be reversed so that Cambodia can benefit from its comparative advantage stemming from relative land abundance and potentially low cost labour. A pre-condition for re-invigorating agriculture lies in land reforms, an essential component of which is to provide legal land titles to owners or users. The second part of this report presents the findings of a recent CDRI study on land titling and its potential effects on productivity and efficiency of Cambodian agriculture.

The review concludes with an Appendix that contains data on key economic variables over the past decade, ending in 2003. These include data on employment, GDP, exports and imports, budget revenues and expenditures, and the balance of payments and trade.

As always, a word of caution is advisable with regard to data quality. While a number of ministries generate data (sometimes duplicating efforts) there is yet to develop a centralised system that attempts to collate, reconcile or combine the data across ministries that can lead to significant margins of error. This *review* was not able to unearth any glaring example of such errors although this does not necessarily mean that there are none.

K.A.S. Murshid

Research director

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Part One: Cambodia's Economic Performance—2003

by Kang Chandrarot and Dannel Liv

1.1. Overall Performance

In 2003, Cambodia's gross domestic product growth slowed to 4.4 percent, down from 5.3 percent in 2002. The deceleration was due to a slowdown in the industrial and service sectors, offsetting increased growth in agriculture.

Agriculture grew at 2.2 percent in 2003, faster than in 2002. Although the sub-sectors livestock and poultry, fisheries, forestry and logging contracted, the crop sub-sector performed well leading to significant overall improvement.

On the other hand, industrial growth slowed to 11 percent in 2003, from 13.8 percent in 2002. Despite the remarkable performance of the garment industry, which accelerated by 22.5 percent in 2003, a decline of 3 percent in the construction sector served to dampen industrial growth.

Similarly, the service sector grew more slowly in 2003, at 2.5 percent, compared to 5.5 percent in 2002. This decline was led by a contraction in trade, and in hotels and restaurants - items related to tourism. In 2003, Cambodia experienced a fall of 11 percent in the number of foreign visitors compared to 2002, probably due to the anti-Thai riots, the outbreak of SARS and the US-led war in Iraq early in the year.

The expenditure situation mirrors the picture on the production side quite well. Consumption spending increased by 6 percent in 2003, slightly more than in 2002. Spending by the private sector remained steady, so the higher growth rate of consumption reflected a faster increase in public spending. Public consumption in 2003 grew by 11 percent, up from 9.7 percent in 2002.

In contrast, total investment fell significantly, by 7.5 percent, in 2003. This was the result of a downturn in both public and private investment. Although the government's policy on capital expenditure did not change, the drop in public spending on investment was due to the fall in budget implementation (or actual spending). Investment by the private sector declined by 3.4 percent in 2003 due to a cutback in foreign direct investment of 21 percent. Domestic private investment, however, grew by 1.5 percent.

Exports, which are driven by garment products, expanded in 2003 by 16.8 percent, faster than the 11.5 percent growth in 2002. Imports increased by 12.2 percent during this period, especially fabrics, petroleum products, vehicles and construction materials.

Fiscal discipline improved in 2003. Overall public deficit was reduced to \$248.7 million in 2003, down from \$307.3 million in 2002. As a percentage of GDP, overall public deficit decreased to 6.6 percent in 2003, from 8.5 percent in 2002.

The National Bank of Cambodia tightened the money supply in 2003. The money supply increased at a slower rate, 15 percent, compared to 33.5 percent in 2002. Still, the value of the riel depreciated against the US dollar by 2 percent between 2002 and 2003.

Trade deficit improved slightly, to \$549.3 million in 2003, from \$563 million in 2002. In spite of this, Cambodia's overall balance of payments for 2003 was in surplus, due to the increase in official loans and transfers. However, the surplus dropped to \$30.6 million in 2003, from \$172 million. This resulted in a relatively small net increase in foreign assets of the National Bank of Cambodia, by \$43.3 million over 2002-03, compared to \$177 million over 2001-02.

1.2. Gross Domestic Product—by Sector

1.2.1. Agriculture

In contrast to 2002, Cambodia's agriculture bounced back, growing at 2.2 percent in 2003. Crop production turned out to be the main contributor, more than compensating for a downturn in other sub-sectors such as livestock, poultry and fishing.

According to the Ministry of Agriculture, Forestry and Fisheries, paddy production rose from 3.8 million tonnes in 2002 to 4.7 million tonnes in 2003, the highest production level in decades. Wet season paddy production, in particular, jumped by 31.6 percent, more than making up for the poor dry season performance.¹ Battambang, which is the fourth highest paddy producer among the provinces, doubled its production to 446,359 tonnes, from 295,511 tonnes in 2002. Paddy production in Takeo swelled by 26.4 percent to 616,757 tonnes, making the province the second largest paddy producer, after Prey Veng with 639,452 tonnes.

The growth in paddy production was unfortunately accompanied by declining production of livestock, poultry and fish. The inland fish catch fell

¹ Ministry of Agriculture, Forestry and Fisheries (2004)

sharply, to 308,750 tonnes, 14.3 percent less than in 2002, although the main producing provinces, such as Kandal and Kompong Chhnang, achieved higher production than planned. Since the plan for inland fish catch in 2003 was the same as in 2002 (344,800 tonnes), the overall drop is related to weak performance in other provinces. In particular, Siem Reap, which is in the top group for fish production, achieved just 76.4 percent of planned output, compared with 87.1 percent in 2002. This reflected an abrupt fall in the fish catch to 29,800 tonnes in 2003, down from 34,000 tonnes in 2002. According to officials from the Department of Fisheries, declining fish catch in most provinces is the consequence of the policy of deregulation of fishing lots (whereby the government opened up water bodies for general public access). In addition, increased imports of fingerlings from neighbouring countries, especially Thailand, reduced the value added that fisheries contributed to GDP in 2003.

1.2.2. Industry and Construction

In 2003, industry grew at a rate of 11 percent, slower than in 2002, when it grew by 13.8 percent. The acceleration in the garment industry was offset by a drop in construction activity.

Production in textiles, apparel and footwear reached more than \$1.8 billion, compared to about \$1.4 billion in 2002. Measured in 2000 prices, this sub-sector accounted for 15 percent of GDP in 2003, compared with 13 percent in 2002. Growing production in the apparel industry should be linked with additional quotas granted by the US for 2003. In addition, a growing influx of subcontracts from China, the main supplier for US markets, supported apparel production last year,² amid a drop in overseas orders due to apprehension about the general election. It is expected that international suppliers from China will continue to provide subcontracts to factories in Cambodia, since they plan to be world suppliers, according to a CDRI survey of Cambodia's garment industry.³ In this way, some factories in Cambodia may survive after the quota system expires at the end of 2004. Major constraints on international competitiveness in Cambodia's garment industry appear unresolved.⁴ While problems related to documentation processing have been eased by streamlining bureaucratic procedures and reducing delivery time, the lack of supporting industries continues to affect international competitiveness. For the setting up of certain kinds of supporting industries such as textiles, there are prerequisites, such as a

² According to interviews with the Garment Manufacturers' Association of Cambodia.

³ The survey was conducted in 2003 in collaboration with the Institute for Developing Economies (IDE) on the competitiveness of Cambodia's garment industry.

⁴ See Kang, C. and S. Chan (2003).

sufficient electricity supply and an efficient transport system. Given the emerging situation related to withdrawal of MFA, it is most likely that a number of garment factories will not be able to survive after 2004.

The second main sub-sector in Cambodian industry is construction. On average, it has provided around 6 percent of GDP. From 1999 to 2002, construction grew continuously. Unfortunately, 2003 registered a fall of 3 percent in construction activities, from a value added of \$249 million in 2002 to \$241 million in 2003, based on 2000 prices. This reflected a decline in both private and public spending as well as increasing use of imported construction materials.

The general slowdown in private investment is broadly indicative of dwindling construction activities. Thus, the Department of Cadastre and Geography of the municipality of Phnom Penh approved 717 construction projects (or 1.22 million m²), down from 769 (or 1.76 million m²) in 2002. The number of mansion construction projects dropped by 11.3 percent to 141 in 2003, while apartment construction declined from 535 projects in 2002 to 493 in 2003, the lowest number since 1995. Likewise, the total area of construction projects contracted by 30.6 percent during 2003, mainly led by the decline in apartment projects from 1.5 million m² to just 0.61 million m². Consequently, the value of approved construction projects slid to \$199 million, down from \$220 million in 2002. This dramatic fall largely echoed the significant drop (49 percent) in the value of apartment construction in 2003.

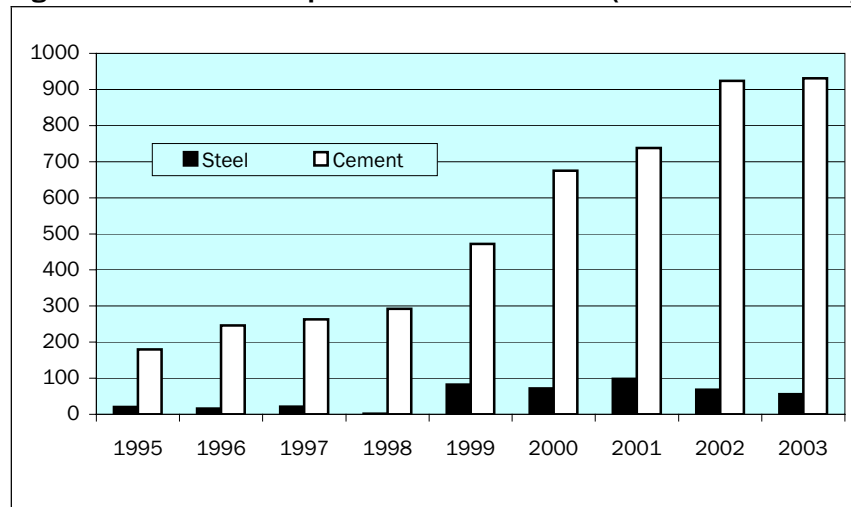
Furthermore, the overall trend of private construction in Cambodia can be indicated by the import of construction equipment, cement and steel. In 2003, Cambodia imported \$80.8 million worth of construction materials, down from \$97.4 million in 2002. In particular, steel imports fell to \$25.1 million, 32 percent less than a year earlier (see Figure 1.1).

The main impetus for the decline in construction during 2003, however, was the government's cutback in capital expenditure. Public spending on construction in 2003 was reduced to \$294 million, a 17 percent drop from 2002. This was largely due to the decline in projects receiving external assistance, which accounted for 71.5 percent of capital expenditure. Project aid from external sources decreased to 806.3 billion riels (\$202.1 million) in 2003 from 1,079 billion riels (\$275 million) in 2002.

Although smaller than the garment and construction industries in terms of their contribution to GDP, the sub-sectors "food, beverages and tobacco" and "other manufacturing" have continued to make significant contributions. Value added by food, beverages and tobacco amounted to \$88.4 million in 2003, up from \$86.6 million in 2002. Value added from 'other manufacturing' reached \$37.2 million. According to records of the Council for the Development of

Cambodia, approved investment projects in food processing and agro-industry (which are included in other manufacturing) increased to \$43.6 million in 2003 from \$36.7 million in 2002. Of this, 93 percent was domestic investment.

Figure 1.1: Cambodia's Imports of Cement and Steel (thousands of tonnes)



Source: Data compiled from Department of Customs and Excise

1.2.3. Services

During 2003, Cambodia's service sector grew at more slowly at 2.5 percent, compared to 5.5 percent in 2002. The decline in hotels and restaurants, which contracted by 1.3 percent in 2003, as well as in the trade sector, more generally, dampened overall performance.

The 'hotels and restaurants' sub-sector tends to move in tandem with tourism. In 2003, the number of international tourists visiting Cambodia declined. The slump in tourism was related to the anti-Thai riots (which closed the Cambodian-Thai border for about three months), the outbreak of SARS and the US-led war in Iraq in early 2003. Also, uncertainties around the July national elections is likely to have contributed to this decline. According to the Ministry of Tourism, Cambodia welcomed 701,014 foreign tourists in 2003, 11 percent fewer than in 2002.⁵ Foreign visitor arrivals by air to both Phnom Penh International Airport and Siem Reap International Airport fell during this period, 16 percent (or 269,674 persons) and 8 percent (186,298 persons), respectively. Travel by land and boat, used by 65 percent of all international tourists, also dropped in 2003, by over 7 percent.

⁵ Ministry of Tourism (2002).

Spending by foreign tourists also fell in 2003. According to estimates by the Ministry of Tourism, total spending by foreign tourists dropped to \$346 million in 2003, 9 percent lower than a year earlier. Although the average spending per tourist per day increased from \$8 in 2002 to \$9 in 2003, this was offset by the shorter average length of stay in Cambodia—5.8 days in 2002 but 5.5 days in 2003. Hotel occupancy rates also declined, to 45 percent in 2003, compared to 50 percent a year earlier.

Despite internal and external disturbances, domestic tourism flourished. The number of Cambodian visitors to Siem Reap province grew by 41 percent to 132,643 persons. Travel by land rose from 65,119 persons in 2002 to 104,960 in 2003—an increase of 61 percent.

Stagnation in the trade sector, which comprises wholesale and retail activities, also contributed to the downturn in the service sector. Value added in the sector fell to \$367.5 million in 2003, down from \$371.4 million in 2002. As Cambodia speeds up liberalisation in international trade, prices of domestic goods and services will be forced down in order to compete with imports, thereby squeezing profits.⁶ In addition, Cambodia's production conditions are unfavourable due to high fees (particularly associated with transport), rudimentary technology and poor management skills.

1.3. Gross Domestic Product—by Demand

1.3.1. Consumption

The rate of consumption, which accounts for 87 percent of total national expenditure, expanded slightly, at 6 percent in 2003 compared to 5.6 percent in 2002, mainly arising from higher public consumption.

In 2003, public consumption reached 100 percent of the target set by the Budget Law 2003, reaching 1,758 billion riels (\$440.3 million). Compared to 2002, real public consumption grew by 11 percent, higher than in the previous year, when it increased 9.7 percent. Of the total public consumption, 614.7 billion riels (\$154.2 million) were spent on wages for civil administration and defence, while 1143.4 billion riels (\$286.2 million) went for non-wage costs such as economic and social transfers. According to the Budget Law 2003, wages for civil administration and defence should have increased by 30 percent and 6.7 percent respectively. The actual wage increase for civil administration was only 26.6 percent, while that of defence surpassed the planned level, with an increase of 8.3 percent. Overall however, spending on wages remained within target.

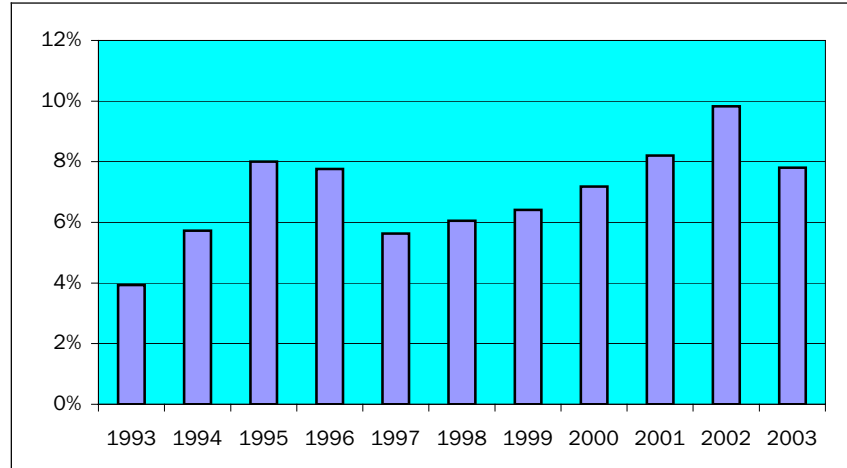
⁶ Kang, C (2002).

1.3.2. Investment

After growing in 2002, investment spending slid back in 2003, contracting by 7.5 percent. This was the result of a decline in both public and private investment.

As a percentage of GDP, public investment fell to 7.8 percent in 2003 from 9.8 percent in 2002 (see Figure 1.2). The large fall in government investment spending is not the consequence of planned policy, but rather of implementation of the budget. The main reason for the decline was a reduction in externally funded projects, which, in turn, was related to the delay in the formation of a new government.

**Figure 1.2: Percentage of Public Investment in GDP
(in constant 2000 prices)**



Source: Data compiled from Ministry of Economy and Finance and CDRI

Similarly, total private investment in Cambodia declined in 2003 by 3 percent, to \$783 million. Although domestic private investment grew by 1.5 percent to \$414 million, there was a crushing decline of 21 percent in foreign direct investment (amounting to \$77 million). FDI, in general, oscillates from year to year. During 2003, the agriculture and service sectors experienced a sharp withdrawal of new FDI. FDI into the textile, apparel and footwear industry also fell in 2003, by 3.7 percent.

Cambodia's membership in the WTO could potentially help to attract foreign direct investment. However, this needs to be accompanied by major economic and legal reforms, and thus may not be of immediate relevance.

1.3.3. Exports and Imports

Higher external demand for Cambodia's products in 2003 helped stimulate the economy. The value of exports grew at a rate of 16.8 percent, reaching \$2,046 million in 2003, compared with an increase of 11.5 percent in 2002. During this period, garment exports (including textiles and footwear) amounted to \$1,355 million, 20 percent higher than in 2002. This situation is related to the additional quotas granted by the US to Cambodia in 2003. The US remains the main export market for Cambodia's garment products, followed by the European Union.

Cambodia's total imports rose by 12.2 percent to \$2,596 million in 2003, more rapidly than in 2002, when the figure was 11.5 percent. In descending order, the top imports were fabrics, petroleum products, food/beverages/tobacco and vehicles.

According to the Customs and Excise Department, fabric imports amounted to \$591.4 million in 2003, 19 percent more than in 2002. At the same time, imports of petroleum products also rose, reaching \$191.6 million, 21.6 percent more than in 2002. Imports of food/beverages/tobacco, on the other hand, dropped by 14 percent in 2003 to \$144 million, led by sugar imports.

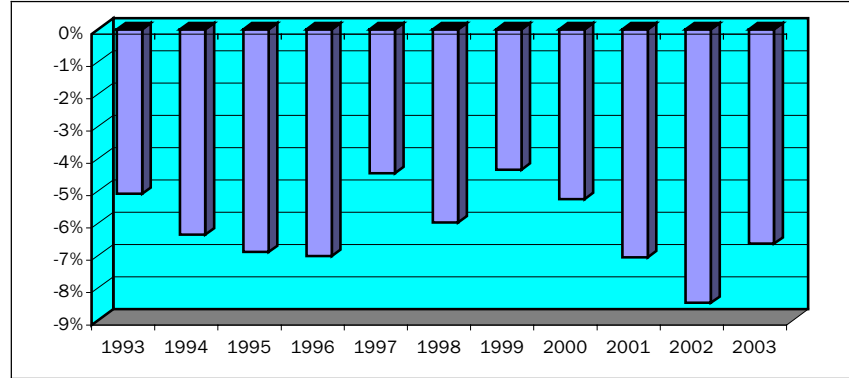
1.4. Public Finance

In 2003, overall public deficit hit 1,164 billion riels, significantly exceeding the 800 billion riels target set by the Budget Law.⁷ As a percentage of GDP, the overall public deficit declined to 6.6 percent in 2003, from 8.5 percent in 2002 (see Figure 1.3). Taking into account expenditure adjustments, the overall deficit declined to 992 billion riels (\$249 million), still 24 percent higher than the target.

During 2003, revenue collection totalled 1,765 billion riels (\$443 million), of which 1,733 billion riels (\$435 million) was on current account and the remainder on capital account. Actual current revenues reached only 88 percent of the target set by the Budget Law. Tax revenues reached only 87 percent of the target, while non-tax revenue achieved 90 percent.

⁷ Based on data from monthly reports on "State Budget Implementation" by the Ministry of Economy and Finance.

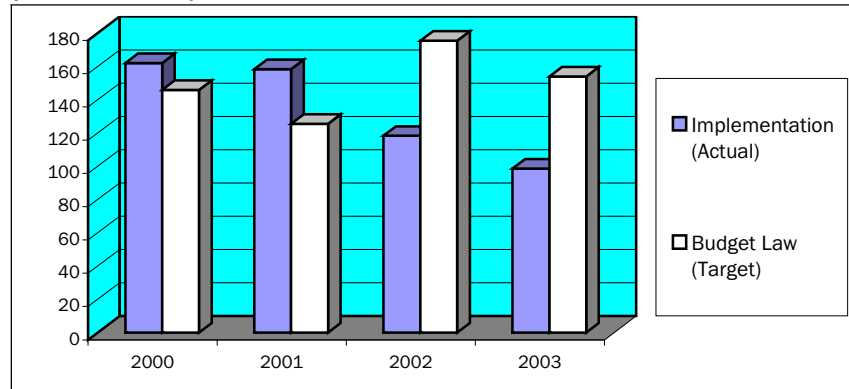
Figure 1.3: Percentage of Overall Deficit in Real GDP



Source: Data compiled from Ministry of Economy and Finance and CDRI

In terms of tax revenues, the collection of excise duties was the lowest, at 77 percent of the targeted amount, while turnover tax was the highest at 142 percent of target. Value added tax, which makes up the largest share of tax revenue at 37 percent, reached 87 percent of the target. According to the Ministry of Economy and Finance (see Figure 1.4), custom duties on petroleum imports totalled 98 billion riels (64 percent of target) in 2003, lower than in 2002, when the figure was 118 billion riels (67 percent of target). Since 2000, revenue from custom duties on petroleum imports has fallen continuously, widening the gap between actual collection and the target set by the Budget Law each year.

Figure 1.4: Customs Duties on Petroleum Imports: Actual and Target (billions of riels)

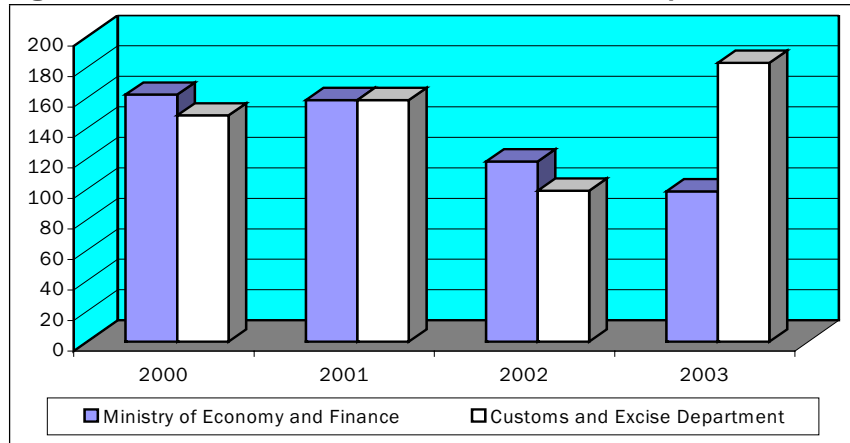


Source: Data compiled from the Ministry of Economy and Finance

Furthermore, there appears to be a discrepancy between the amount of customs duties collected, as reported by the Ministry of Economy and Finance and the Customs and Excise Department (see Figure 1.5) in most years. This difference was particularly striking in 2003, when the Customs and Excise Department recorded collecting 183 billion riels on petroleum imports, 84 billion riels more than what was reported by the ministry.

Among non-tax revenue sources, collection from forest exploitation continues to perform very poorly, at only 21 percent of target. Collection from 'tourism and civil aviation' tie for second rank at 46 percent of target. On the other hand, revenues derived from quota auctions surpassed the target, reaching 162 percent of target at 145 billion riels (\$37 million).

Figure 1.5: Collection of Custom Duties on Petroleum Imports



Source: Data compiled from the Ministry of Economy and Finance, Customs and Excise Department

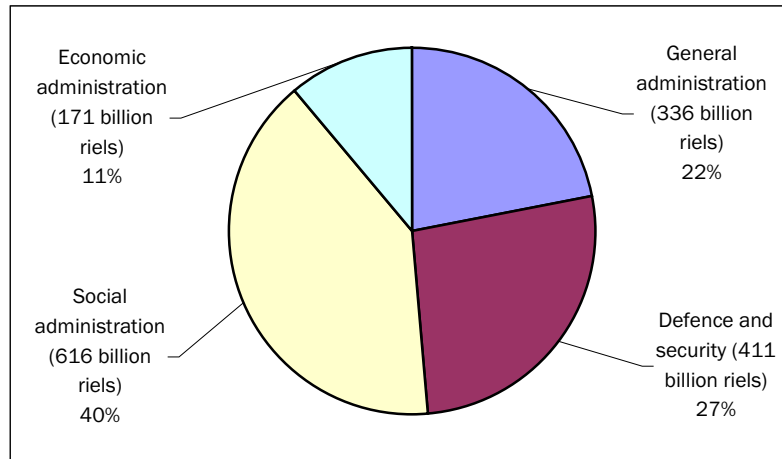
On the side of budget expenditures, the government spent a total of 2,757 billion riels (\$692 million), including expenditure adjustments. Current expenditures achieved 100 percent of the target in 2003, reaching 1,758 billion riels (\$440 million). This total was appropriated as follows (see Figure 1.6): general administration, 336 billion riels; defence and security, 411 billion riels; social administration, 616 billion riels; and economic administration, 171 billion riels.

The following is a list of ministerial and other expenditures that were over target and contributed to the overall budget deficit:

- National Election Committee, 827.9 percent of target;
- Interior-Administration, 177.1 percent of target;
- Council of Ministers, 149.2 percent of target;

- Tourism, 127.4 percent of target;
- Interest on loans, 121.6 percent of target;
- Justice, 115 percent of target;
- Women's and Veterans' Affairs, 108.7 percent of target;
- Subsidies to provinces and municipalities, 104.7 percent of target;
- Constitutional Council, 104.6 percent of target;
- Foreign Affairs and International Cooperation, 104.1 percent of target;
- Public Worship and Religion, 102.5 percent; and
- Royal Palace, 101.4 percent of target.

Figure 1.6: Distribution of Current Expenditures in 2003



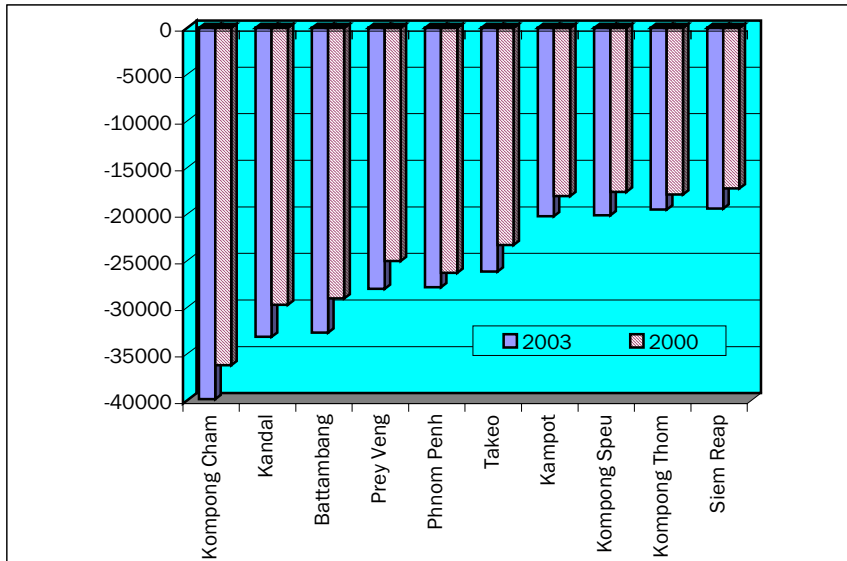
Source: Data compiled from the Ministry of Economy and Finance

On the other hand, expenditure devoted to the four priority ministries (Education, Youth and Sport; Public Health; Rural Development; and Agriculture, Forestry and Fisheries) were all below target:

- Education, Youth and Sport, 93 percent of target;
- Public Health, 85.6 percent of target;
- Rural Development, 80.5 percent of target;
- Agriculture, Forestry and Fisheries, 90 percent of target.

Meanwhile, capital expenditure exceeded the amount set by the Budget Law, reaching 1,171 billion riels (\$294 million) or 113 percent of target. This above-target expenditure was due to projects receiving external financial assistance, which amounted to 837 billion riels (\$210 million).

Figure 1.7: Top Ten Deficit Provinces (in million riels)



Source: Data compiled from the Ministry of Economy and Finance

Among all provinces, Kompong Cham accumulated the largest deficit with 39.9 billion riels (\$10 million), in 2003 (see Figure 1.7). Total revenue collected in this province amounted to 0.24 billion riels, while expenditure reached 40.1 billion riels, 10.2 percent more than in 2002. In this province, the four priority ministries were among those that expended the highest amount. The Ministry of Education, Youth and Sport spent the most at 22.4 billion riels (or 56 percent of total expenditure in the province), followed by the Ministry of Public Health at 7.4 billion riels (19 percent). In fifth and sixth rank were the Ministry of Agriculture, Forestry and Fisheries (0.813 billion riels) and the Ministry of Rural Development (0.555 billion riels).

1.5. Money and Prices

1.5.1. Money Supply

After easing the money supply in 2002, the National Bank of Cambodia (NBC) adopted a more restrictive policy in 2003. The supply of riels, which is

composed of riels outside the banks and riels on deposit, increased by 15 percent to 1,019 billion riels in December 2003, compared to a 33.5 percent increase in 2002. Meanwhile, foreign currency deposits, which make up the largest portion of Cambodia's money supply, rose by 14 percent to \$580 million at the end of the year, less than in 2002, when the figure was 29.6 percent. Total liquidity (M2), which takes into account both riels and foreign currency deposits (after conversion into riels), grew by 15 percent to 3,329 billion riels at the end of 2003 (\$836 million), much more slowly than a year earlier, when it increased by 31 percent.

The decline in the supply of riels is mainly attributed to a cutback in issuing currency. Between December 2002 and December 2003, the NBC issued 132 billion riels, creating a total stock of 977 billion new riels. In comparison to 2002, the NBC contracted currency flows by 29 percent. Thus, riels in circulation (outside banks) rose by 18.5 percent to 908 billion riels by the end of 2003, more slowly than in 2002, when it increased by 33 percent.

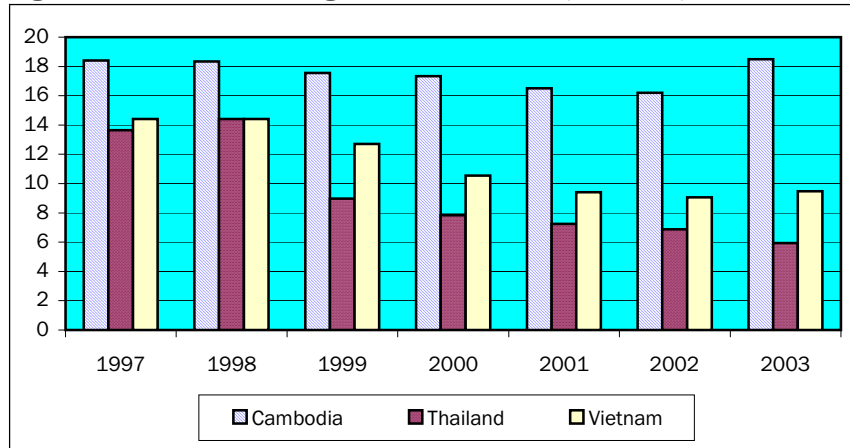
Tightening of the money supply was probably brought about through a reduction in foreign assets and/or fixed assets of the NBC.⁸ According to the accounts of the NBC, foreign assets held grew at a slower rate of 7 percent in December 2003, compared to 2002, when a 31 percent increase took place. At the same time, fixed assets of the NBC declined by 11 percent during this period, from 141 billion riels to 126 billion riels.

The reduction in total liquidity was also caused by a deceleration in the growth of foreign currency deposits, which represent 69 percent of Cambodia's total liquidity. Foreign currency deposits increased at a sluggish rate of 14 percent, to \$580 million in December 2003, compared to a 30 percent increase the previous year. The slowdown in growth of foreign currency deposits is attributed to the decline in the number of foreign tourists and the fall in foreign direct investment.

1.5.2. Interest Rates

After gradually reducing interest rates on lending in foreign currency since 1997, banks in Cambodia increased the interest rate to 18.5 percent in 2003, compared to 18.4 percent in 1997. Cambodia continues to maintain higher interest rates than Thailand and Vietnam. Banks in Thailand charged the lowest interest rate, 5.94 percent, in 2003 (see Figure 1.8).

⁸ Data from the National Bank of Cambodia: Monthly Reports.

Figure 1.8: Nominal Lending Rates in Cambodia, Thailand, and Vietnam

Source: National Bank of Cambodia, International Monetary Fund

In the context of a dollarized economy, the higher interest rate mainly reflects slower growth in foreign currency deposits (predominately in US dollars). At the end of 2003, foreign currency deposits were growing at a decelerating rate of 14 percent, compared to 29 percent at the end of 2002. Although no data exists on the amount of foreign currency circulating in the economy, this slowdown in foreign currency deposits is probably a good indicator of dwindling foreign assets. The following factors are likely to be relevant:

- *Foreign Direct Investment:* Since 2001, foreign direct investment has continuously declined at an accelerating rate. FDI declined at a faster rate in 2002–2003 (at 21 percent), than in 2001–2002 (at 13 percent).
- *Current Account:* Cambodia's current account deficit experienced a sharp increase in 2003, rising to \$131 million from \$24 million in 2002, even though official transfers increased by only 32.9 percent. The outstanding performance of the export sector enabled imports to be expanded.
- *External Assistance:* Official loans for financing trade deficits have fluctuated unpredictably over the years. Compared to 2002 when official loans grew by a record 57.8 percent to \$150 million, official loans in 2003 increased only at 4.3 percent. Moreover, external assistance for both budget support and capital expenditures fell sharply in 2003, declining by 21.9 percent and 25.3 percent, respectively. The decline in external assistance may have been due to

the delay in formation of a new government after the July national elections.

Given that key sources of Cambodia's liquidity are external in nature, it is clear that the monetary authorities have little influence on the interest rate, which is crucial for boosting investment, especially domestic investment.

1.5.3. Inflation

Consumer prices in Cambodia increased by 1.1 percent during 2003, less than in 2002, when prices rose by 3.3 percent. This slowdown is attributed to a deceleration in house rents and utility costs, which increased by 0.8 percent in 2003, compared to 7.2 percent in 2002. The cost of medical care also declined. Between January 2003 and January 2004, the price of medical care fell by 1.9 percent. Food prices, which represent the bulk of the consumption basket, also rose more slowly in 2003.

In contrast, costs of transportation and communication rose sharply, by 4.9 percent in 2003 compared to 0.3 percent in 2002, led by increases in the price of gasoline and diesel fuel, as well as higher bus fares. Since petroleum products are core products for business as well as for use in private households, a change in the price of gasoline and diesel will affect the general price level. The recent climb in the inflation rate in 2004, thus, is a result of the continuing rise in fuel costs.

1.5.4. Exchange Rate

In 2003, the riel fell against the US dollar, depreciating by 2 percent. One dollar traded at 3,998 riels in 2003, compared to 3,918 riels in 2002. The riel also fell 5.4 percent against the Thai baht, from 91.2 riels/baht in 2002 to 96.2 riels/baht in 2003.

The depreciation of the riel is associated with three factors: (1) a reduced inflow of dollars due to the slowdown in the tourism industry and decline in foreign direct investment, (2) increasing demand for foreign exchange, mainly for imports and (3) political uncertainty surrounding the national elections in July 2003, and the prolonged stalemate after the elections.

1.6. Balance of Payments

1.6.1. Current Account

In 2003, Cambodia's current account (including official transfers) worsened, leading to a deficit of \$131 million from \$24 million in 2002. The balance of trade recorded an improvement as deficits declined to \$549.3 million from \$563 million because of superior export performance. Meanwhile, the services

account experienced a smaller surplus, of \$132 million compared with US\$225 million in 2002 – a result of the slowdown in the tourism industry as already indicated. Incomes of domestic service providers fell to \$526 million in 2003, 12 percent lower than a year earlier. In contrast, Cambodia's use of foreign services increased, reaching \$394 million in 2003, up from \$374 million in 2002.

The deficit in the income balance, which accounts for receipts from Cambodians working abroad and payments to foreigners working inside the country plus interest payments, deteriorated to \$183 million in 2003 from \$39 million in 2002. According to the NBC, the dramatic growth in the deficit was driven by the sharp increase in income payments, from \$65 million in 2002 to \$227 million in 2003, of which \$196 million consisted of payments to foreign workers inside the country.

The balance in current transfers (including private and official remittances and grants) continued the trend observed since 1993. Total transfers rose by 33 percent to \$469 million in 2003, faster than in 2002 (2.6 percent increase). Of the total, \$306.5 million were net official transfers and \$162.8 million, net private transfers.

The large surplus in the balance of current transfers was insufficient to cover deficits in the trade and income balance, and to compensate for the decline in the service balance. This resulted in an overall current account deficit amounting to \$131 million.

1.6.2. Financial Account

As a result of the prolonged trend of declining FDI since 2001, Cambodia's financial account continued to be largely dominated by official loans (excluding those of the IMF). To finance the deficit in the current account, Cambodia received \$156 million in official loans in 2003, 4 percent more than in 2002. At the same time, Cambodia repaid \$8 million. The net inflow of capital in the form of official loans amounted to \$149 million, 6 percent more than in 2002.

Net non-official investments (capital inflows and outflows) made up only 13 percent of the financial account in 2003. Foreign direct investment fell from \$98 million in 2002 to an estimated \$77 million while other private investment had an estimated net outflow of \$54 million. On the whole, Cambodia's financial account, including both official and non-official capital flows, expanded to \$172 million in 2003, 41 percent higher than in 2002.

Cambodia's overall balance of payments surplus declined to \$31 million in 2003, down from \$172 million in 2002. Taking into account exceptional

financing and use of IMF credit, reserve assets of the NBC plunged to \$41 million in 2003 from \$187 million in the previous year.

1.7. Conclusion and Prospects for the Future

In 2003, the Cambodian economy slowed for the third consecutive year. The remarkable acceleration in the apparel industry, in combination with the significant recovery in crop production (thanks to a good season and timely rainfall), unfortunately, was offset by poor performance in other sectors.

Higher quotas granted predominantly by the US boosted the performance of the garment industry. However, this does not indicate increased competitiveness in Cambodia's garment industry in world markets. The lack of supporting industries and backward and horizontal linkages continues to be a major constraint. Some difficulties have been eased, e.g. reduction in documentation and processing time, upon the request of the Public-Private Sector Forum and consequent changes in government policy. The expiry of the quota system is being widely signalled as a turning point (for the worse) for Cambodian industry. Policies to improve the economic environment and to improve the competitiveness of domestic industries are urgently needed. The objective should be to lower operating and production costs, streamline public administration and, last but not least, establish supporting industries. While the short-term outlook appears to be bleak, there are important windows of opportunity that may be emerging. These include greater access to European markets as the rules of origin are relaxed, and use of higher labour standards and corporate social responsibility as elements to garner niche markets. A task force should be set up to examine these and other opportunities carefully and strategically in order to deal with what inevitably will be a difficult period.

All the major sectors – tourism, fisheries and poultry – suffered a setback in 2003, highlighting the fragile nature of the economy. In recent times, for example, tourism was adversely affected by the anti-Thai riots in January 2003 and the SARS outbreak. Excessive reliance on tourism is, therefore, fraught with danger.

Fish production, which accounted for 7.8 percent of GDP in 2003, fell, most likely because of lower water levels due to dams in China and Vietnam, deforestation in Cambodia, and deregulation of fishing lots. One way to counteract these negative influences may be to encourage culture fisheries, which remains currently under-exploited. Fish production plays an important role as a source of protein in the Cambodian diet and in stabilising food prices.

It is important to diversify the sources of growth by turning to agriculture and rural development on the one hand and encouraging domestic

public and private investments, on the other. The correct incentive structure and appropriate institutions will need to be put in place to exploit these potentials. It can be argued that Cambodia has already passed through a period of primitive capital accumulation, and the challenge is to promote and encourage the deployment of this capital for productive investments. In turn this would require the emergence of a genuine, indigenous capitalist class, as opposed to a class of rent seeking interests.

A pre-requisite for the above may well be an effective and properly functioning financial and banking system. High interest rates, a poor legal framework and high dollarization level of the economy serve to provide weak incentives to potential investors and constrain public policy, especially monetary and interest rate policies.

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Part Two: The Distribution of Land Titling Benefits in Cambodia: Agricultural Investments and Institutional Credit⁹

by Brett Ballard and So Sovannarith

2.1. Introduction

The Royal Government of Cambodia has embarked on a reform agenda designed to achieve sustainable economic and social development, poverty reduction, and good governance. The RGC recognizes, along with donors, that land tenure security in both rural and urban areas is one of the key foundations for achieving such goals. The Ministry of Land Management, Urban Construction, and Planning (MLMUPC) is implementing a Land Management and Administration Project (LMAP) in order to strengthen land tenure security and land administration systems. Among other activities, LMAP is conducting a systematic land titling project in which one million titles will be issued during the first 5-year phase (2003-2007). In the rural sector, the expected benefits include (a) increasing farmer incentives and capacities to invest in agricultural production; (b) increasing investments in small and medium enterprises (SMEs); and (c) increasing access to institutional credit through the use of land titles as loan collateral.

There is support for such expectations in both the theoretical and empirical literature concerning property rights and land tenure security. For example, Brandao and Feder (1996) argue that “secure individual (or corporate) property rights are critical in establishing a structure of economic incentives for investments in land-based activities.” Other researchers have observed that a lack of equitable access to land and secure tenure contribute to extreme poverty, dependence, and unsustainable patterns of rural migration. In this

⁹ This Chapter is based on CDRI’s draft report to the Ministry of Land Management, Urban Planning, and Construction (MLMUPC), entitled *Cambodia Land Titling Program: Baseline Survey Project Final report: Rural Phase 1* (Ballard and So, forthcoming).

sense, countries investing in more efficient and equitable land tenure administration tend to develop faster than those that do not make such investments (Munro-Faure, 2003). Studies concerning the impacts of land titling in Thailand and other countries also suggest that the impacts on social development and economic growth can be significant (Onchan and Aungsumalin, 2002).

Other researchers question some of these claims by arguing that the benefits from land titling projects are not equitably distributed, and that such projects tend to favour those with more land and larger assets. For example, by serving as a form of collateral, land titles are expected to increase people's access to formal credit institutions. This could be especially important in terms of poverty reduction as land titles may enable poorer community members to access lower cost loans for productive purposes. Payne (2000), however, has argued that the real issue regarding credit for the poor is not a matter of collateral, but rather the banking sector's reluctance to provide credit services to poor borrowers who take out smaller loans that are more costly for banks to manage.

The impact of land titles on the size of household landholdings is also an important consideration. Evidence from Thailand (Onchan and Aungsumalin, 2002) shows that the number and size of land plots per family tended to decrease along with titling. As discussed below (Section 2.2), the average size of landholdings may currently be insufficient for food security in Cambodia. While farmers may continue to spend on variable inputs on smaller plots, smaller plot sizes may obviate larger scale investments, such as machinery and infrastructure improvements.

Such claims also raise important methodological issues concerning the empirical assessments of land titling impacts. For example, land titles are also expected to stimulate increased investments in agricultural production. Such expectations assume that a supporting institutional framework is in place and performs reasonably well. However, in a country like Cambodia, where draught and floods occur frequently along with other obstacles, farmers may be reluctant to invest in agricultural inputs or land improvements in the short term. In this sense, the three-year period for the current study in Cambodia may not be sufficient to make certain observations about land titling impacts.

Finally, the degree to which access to land and secure tenure rights can contribute to socio-economic growth and development depends in large measure on the capacity of public institutions to govern property rights efficiently and effectively. Despite the fact that the enforcement of land tenure security has had a dubious record in many places in Cambodia, we will hold the governance variable constant in order to focus on agricultural investments and credit access. This is a reasonable proposition as most of the study sites are located in stable paddy production areas where land ownership has been

governed according to traditional local customs without many reported conflicts, other than normal boundary disputes between neighbours and ownership disputes within families.

In this chapter, we discuss the potential impact of land titles on agricultural investment and productivity, as well as access to credit, using data from 916 rural households that own agricultural land in four of the provinces where LMAP is now issuing land titles.¹⁰ We predict that the distribution of benefits from land titling will be structured according to the distribution of landholding size and household assets. We refer to households with better land and asset endowments as High Potential Impact (HPI) households, and those less endowed as Low Potential Impact (LPI) households. Moreover, households located in High Capacity Areas (HCAs), where the institutional environment and infrastructure are more developed, are more likely to benefit from land titles than households located Low Capacity Areas (LCAs) with fewer resources and less well-developed institutions.

This set of predictions points to several programming and policy recommendations. First, the impact of land titling on social development, economic growth, and poverty reduction can be optimized by targeting land titling efforts in areas where government agencies, NGOs, and private investors are actively engaged. At the same time, the benefits of land titling for disadvantaged and vulnerable households can be enhanced by targeting areas where social services and development resources are focused on the poor. Second, the benefits of land titling for disadvantaged households can be increased by policies that link land titling projects to pro-poor development objectives. For example, policies aimed at reducing interest rates in the formal sector would improve credit access for small landholders. Meanwhile, a tax on unused land over a certain size would reduce problems associated with land speculation and conflicts, and would promote land use diversification and higher utilization rates.

2.2. Structure of the Chapter

Section 2 reviews the literature concerning (a) land administration and the more salient features of the current land situation in rural Cambodia, and (b) property rights and land tenure security in general. An overview of the research methodology is also included. Section 3 discusses the rural LMAP survey population in terms of household landholding size and assets, as well as the gender of the household head. Sections 4 and 5 then examine in more detail the key findings concerning agricultural investment and productivity, as well as credit activity. Section 6 concludes this chapter with a summary of the main points and makes several policy and programming recommendations.

¹⁰ Kompong Cham, Kompong Thom, Sihanoukville, and Takeo.

2.3. Literature Review and Methodology

In this section, we review the recent literature concerning land administration and the current land situation in Cambodia. We then examine the literature concerning property rights and land tenure security that forms the theoretical foundation for land titling programs. This discussion helps frame the research methodology employed in assessing the impact of land titling programs.

2.3.1. Land Administration

Most accounts of land administration in Cambodia refer to the fact that land was once owned by a sovereign king who granted his subjects use rights for cultivation. As population was small relative to available land, the amount of land that people could cultivate depended in large part on household labour resources and assets, such as draft animals. The principles guiding land use rights are associated with extensive farming systems characterized by low population densities and low frequencies of cultivation. Such rights are generally governed informally at the local level according to custom and tradition.

A formal system of land management that recognized the private ownership of land was first introduced by the Land Act of 1884 during the French colonial period, but was not fully implemented until around 1930. This system remained in effect until 1975, and as a result, Cambodia had a formal law and accompanying practices for land administration in operation for approximately four generations. This suggests there was a period sufficiently long enough for the system to have been firmly institutionalized and accepted into “societal memory” (Asia Development Bank, 2003). Other sources, however, suggest that this system was largely confined to the more densely populated rice growing areas of the country. Moreover, following independence in 1954, the Cambodia government made only limited progress on formally registering property (World Bank, 2003).¹¹

Many of the current problems associated with land tenure rights and land administration in Cambodia, however, can be traced to civil conflict, war, and the radical collectivization policies implemented by the Khmer Rouge during the period of Democratic Kampuchea (DK) from 1975-79. These problems include four phases of mass dislocation and movements of both urban and rural populations. The first phase occurred in areas where many people were forced to abandon their land to seek refuge in Phnom Penh and other urban areas as fighting intensified prior to 1975. The second phase took place as a result of brutal policies of forced migration during the Pol Pot period,

¹¹ The World Bank's Project Appraisal Document uses the Civil Code of 1920 to date the recognition of private property as well as land management and administration.

1975-79. The third phase took place when people sought refuge in Thailand and other countries following the defeat of the DK regime in early 1979. The fourth phase occurred when Cambodian refugees were repatriated from refugee camps in Thailand and elsewhere in 1992-93 during the UNTAC period.

In terms of land management and administration, cadastral records and maps were destroyed and most professionals either died or eventually fled the country during the DK period. The physical infrastructure supporting private land ownership was also either damaged or destroyed in order to implement collective farming. For example, in certain wet-season rice growing areas of Kompong Thom and Kompong Cham provinces, the small dikes that served both as boundary markers between individual plots and water management structures were destroyed to form larger areas that were farmed collectively. Though land was also collectively farmed in small groups (*krom samaki*) after the defeat of the DK regime in 1979, dike systems were gradually re-established or repaired, primarily for purposes of water management, under the Peoples Republic of Kampuchea (PRK).

During the PRK period in the 1980s, residential use rights were allocated on the basis of occupation, while the State retained ownership of land. In 1989, the government re-introduced private property rights through Instruction Number 3, along with Sub-decree 25, while at the same time nullifying all land rights and claims prior to 1979. The decree established ownership rights for residential land up to 2,000 sq. meters, possession rights for cultivated land for less than five hectares, and concession rights for plantation land greater than 5 hectares.

Agricultural land was also distributed to families according to the number of adults and other potential-working members of the household. Concerted efforts were made to provide people with equal shares of good quality land, such as low-lying fertile land near water resources. Larger households also received additional plots of remaining land that were perhaps less fertile or located further away from favourable conditions. In terms of area, then, larger households tended to receive a larger number of plots as well as larger areas of land than did smaller households. Meanwhile, in rice growing areas, the dike systems that marked individual plots and facilitated water management were further strengthened and expanded.

After the enactment of the 1992 Land Law, people were able to apply for land tenure certificates that confirmed occupancy and use rights, although the law allowed only possession rights rather than ownership in rural areas. Since then, as many as 4 million applications have been submitted, but the cadastral system has been ill equipped and under-resourced to manage even modest work loads. In the absence of formal titles, nascent land markets still required mechanisms to facilitate contractual exchange of property rights in

land. Such transactions combined elements of both formal and informal exchange, as people began exchanging application receipts and other papers (e.g., land survey receipts) in order to document transactions that were recognized at the local level by village leaders or commune chiefs (So *et al*, 2001).

The New Land Law of 2001 was passed largely in recognition of the fact that progress toward social and economic development requires a system of strengthened land tenure rights, as well as improved land management and administration. The law recognizes three domains of land ownership in Cambodia, including the public domain of the State, the private domain of the State, and the private domain. Within the private domain, ownership can be individual, communal, undivided, and co-ownership. Other rights to land include use and habitation rights, usufruct rights, easements, mortgages, pledges and charges, as well as specified contractual rights agreed upon by interested parties (Asia Development Bank, 2003).

2.3.2. Current Situation of Land

The current land situation in Cambodia is characterized by increasing demographic pressures, insecure land tenure rights, unequal landholdings, increasing landlessness and near landlessness, and low levels of productivity and investment.¹² This situation is of particular concern in rural areas where 80-85 percent of the Cambodian population is engaged in subsistence farming. Moreover, most of the 36 percent of Cambodia's population who live below the poverty line are in the rural sector. Most Cambodians will continue to rely on agriculture for their primary means of livelihood, as industry and service sector growth is not expected to keep pace with labour force growth in the near future.¹³

The problems associated with rural land tenure also affect urban areas in a variety of ways. The most visible impact concerns the large number of people migrating to the cities in search of employment. This migration, along with other factors, is placing significant pressure on housing markets as well as public services and utilities (e.g., water and sanitation), and is a source of potential social instability. Conflicts over land involving landless people encroaching on state public and private land are also increasing. As a result of these and other problems, land and property rights reform in both the rural and urban sectors feature prominently in the government's development agenda as outlined in the Socio-Economic Development Plan II (2001-2005) and the National Poverty Reduction Strategy (2003-2005).

¹² See, for example, Van Acker, Frank (1999); Biddulph, Robin (Oxfam GB, 2000); So *et al*, (2001); Sophal *et al*. (2003).

¹³ Kang Chandararot and Chan Sophal (CDRI, 2003)

2.3.2.1. Agricultural Investments and Production

Productivity of land in terms of yields in Cambodia is among the lowest in the region,¹⁴ and farm incomes are generally quite low. Most farmers lack capital resources with which to invest in variable inputs (e.g., seeds, fertilizers), equipment (e.g., water pumps, hand tractors), or land improvements (e.g., small-scale irrigation). One problem concerns a lack of access to formal credit institutions because of location, the absence of collateral with which to obtain lower cost loans, or insufficient information about the rules and procedures governing credit (e.g., payment schedules, default). As a result, farmers often borrow money in the informal sector, sometimes at high interest rates from moneylenders, for emergencies (e.g., health care, food shortages) and seasonal agricultural inputs (e.g., seed, fertilizer). When there are so few credit options available, borrowing for emergencies tends to crowd out investments.

Most farmers also lack secure land rights, which makes them vulnerable to land grabbing, encroachment, and other types of conflicts. This in turn reduces investment incentives, even when capital resources may be available. Many farmers are also unable or otherwise reluctant to assume the risks associated with variable soil and climate conditions (e.g., draught, floods). Farmers also face low output prices for their products relative to input costs and high transactions costs associated with marketing. Moreover, many farmers do not have access to relevant extension services in cropping, animal husbandry, and fisheries, as well as information about market conditions and pricing trends.

As for productivity, Sophal and Acharya (2002b) observed that the general proposition concerning the higher productivity of smaller farms in Asia also holds in Cambodia when farmers use traditional methods of wet-season rice cultivation. This relationship tends to break down, though, “when modern methods of farming are introduced during dry- season farming.” They also observed that total production tends to be lower on small farms, so efficiency does not necessarily mean food security. This raises important questions about optimal farm size in Cambodia. (See Section 2.7.3 below.)

2.3.2.2. Land Inequality

According to the Socio-Economic Survey (SES) of 1999, there are approximately 2.88 million agricultural land parcels in Cambodia. This gives an average of 1.37 parcels per household, with an average size of .90 hectares. Several recent studies¹⁵ point to rising land inequality in

¹⁴ Sophal, Chan, Kim Seadara, and Sarthi Acharya (CDRI, 2003)

¹⁵ RGC (1999), *Report of the Cambodia Socio-economic Survey 1999*, (Phnom Penh, Ministry of Planning).

Cambodia, citing Gini co-efficients in the range of 0.50 – 0.61 for agricultural lands. The reasons include demographic pressures, large unsettled populations, weak credit markets, and speculative land purchases by wealthy urban residents who may have exhausted other investment alternatives.¹⁶

It is important to bear in mind, though, that in terms of land equality among households, land distribution has never been equal since the distribution of land in 1989. As mentioned above, land was distributed to households according to the number of working family members. As a result, larger households almost by definition received more land and more plots than did smaller households. Smaller families with a smaller labour pool, especially those headed by single women, have subsequently been at a greater disadvantage in terms of sustaining productive farming practices. As a result, they are more vulnerable to emergencies and other household shocks, and tend to lose land at a faster rate than other households due to distress sales.

2.3.2.3. *Landlessness/Near Landlessness*

Researchers estimate that 12-15 percent of rural households are without agricultural land.¹⁷ It is also estimated that absolute landlessness may be increasing by about 2 percent each year.¹⁸ The rate of landlessness is also higher among female-headed households than among male-headed households.¹⁹ For example, an Oxfam GB survey of 30,000 families found 21 percent of landlessness among female-headed households, as opposed to an overall rate of 13 percent. In terms of “near landlessness,” it has been estimated that about 25 percent of households own less than 0.5 hectare of land, which is insufficient to sustain livelihoods. Acharya *et al* (2001: 2) observe that “the small land size coupled with low application of modern technologies is the principal reason for rural poverty.”

The reasons for increasing landlessness and “near landlessness” involve a complex set of factors. Many of the landless have never possessed land, at least since the early 1990s. For example, many former refugees who were repatriated to rural areas in 1992-93 did not receive land because land was already claimed or mine-affected. Many people who once had land have since lost it for a variety of reasons. One often cited reason concerns the lack of affordable credit that pushes some people to sell land in times of crisis. For example, of the landless households in the Oxfam GB study, 43.6 percent

¹⁶ See for example, So Sovannarith, Chan Sophal, and Sarthi Acharya (CDRI, 2001)

¹⁷ Biddulph, Robin (Oxfam GB, 2000); So *et al.* (CDRI, 2001)

¹⁸ Ibid.

¹⁹ Ibid.

previously had land, but subsequently lost it. Nearly 87 percent of these cases were because of distress sales, almost half of which involved health care.²⁰

Other factors include low productivity and low incomes, which compel some farmers to switch out of agriculture in order to migrate elsewhere to sell labour. Land grabbing and speculative purchases also account for some landlessness. In the Oxfam sample, for example, 13 percent of the landless reported that land was taken from them without compensation.²¹ Demographic pressures and the ensuing atomization of land parcels are also contributing factors. For example, Biddulph (2004) observes that the number of new families is growing more rapidly than the overall population due to the distortion of the population profile caused by the genocide during 1975-79. This suggests that families must sub-divide land plots at a faster rate in order to meet the inheritance needs of their children, including newly wedded couples.

2.3.2.4. *Land Tenure*

According to the Department of Cadastre and Geography, not more than 14 percent of the estimated 4.5 million applicants have received formal certificates of ownership since the early 1990s. A disproportionate share of titles has been issued in Kandal, Takeo, Kampot, as well as other more populated provinces in the south and Siem Reap. Many more titles were issued between 1989-95 than in the period 1995-2000, in part perhaps because the easiest cases (i.e., easy access, no conflicts) were dealt with first (Sophal *et al*, 2001). There is some evidence that suggests a smaller proportion of female-headed household possess land certificates than male-headed households (Boreak, 2000). This can be explained by the fact that poorer households, which include many single female headed households, cannot afford the high costs of obtaining land certificates (So *et al*, 2001).

The demand for formal land documents appears to be highest in areas situated along roads and near urban market centres where titles can be used to “facilitate land transactions, clarify boundaries, and avoid disputes with would-be claimants.” However, the high transaction costs (e.g., time, official/unofficial fees) associated with obtaining titles precludes most people from seeking them (So *et al*, 2000). As a result, people with wealth and rank are far more likely to seek land titles than people without such resources. Moreover, some people lack trust in the ability of government officials to enforce land rights, especially when powerful actors are involved.

Instead of certificates, most people use other documents to demonstrate ownership, such as receipts for land certificate applications and/or land surveys.

²⁰ Biddulph, Robin (2000)

²¹ Ibid.

Such documents are frequently exchanged to facilitate land transactions. In transactions involving both receipts and actual certificates, people routinely just scratch out names and write in new ones. This system seems to work in many areas as long as the relevant parties involved with such transfers accept this kind of documentation. This has usually been the case when transactions are carried out at the local level between people who know each other or otherwise have some common bond. The potential for misunderstanding and disputes, however, tends to increase when transactions involve people from outside the community.

2.4. Property Rights and Land Tenure Security²²

The assumptions and predictions that planners make about the expected outcomes from any land titling program are derived from general theories of property rights. Property rights are generally defined as a “bundle of rights” to consume, obtain income from, and dispose of a particular asset (Barzel, 1989). The value of any asset is defined in terms of (1) the expected future benefits that may be derived from the asset, and (2) the security of one’s control over the rights to an expected stream of benefits (Alchian and Demsetz, 1973). However, the use, control, and ownership over tangible assets, such as land, are not necessarily congruent. For example, we have already seen that individuals in Cambodia once had the right to use land for productive purposes, but not the right to own land as a tradable commodity.

The effective governance of property rights requires a system of rules to regulate the negotiation and enforcement of ownership, use, and control rights. As a type of contractual relationship, the exchange of property rights is governed by both informal and formal institutions. Informal institutions, such as social norms and culturally defined codes of expected behaviour, can be effective means of governance when exchange is highly personalized, as in traditional rural Cambodian villages. Formal institutions, which entail mechanisms and rules that are codified through a political process and enforced by the State, are more efficient in situations where exchange is more complex and impersonal (North, 1990). This characterizes the emerging land markets in more densely populated and economically dynamic areas in and around Cambodia’s larger cities and towns.

Informal and formal institutions of governance are also not necessarily congruent with one another, resulting in high transaction costs associated with ambiguity and tension in the formation and enforcement of property rights rules between various jurisdictions. Such ambiguities increase during periods of rapid social and economic transitions characterized by either changes in technology or local prices that affect the expected value of wealth producing

²² The references to property rights and governance are excerpted from Ballard (2003).

assets, such as land (Libecap, 1989; North, 1990). The tensions associated with uncertainty often create both the demand and opportunity for a redefinition and more efficient redistribution of property rights among community members, as well as among outside claimants who may be attracted by the creation of new assets. A good example of this in Cambodia concerns the fact that urban people who purchase land in rural areas prefer certificates or titles rather than application receipts for proper documentation (So *et al.*, 2001).

In rural areas, extensive modes of agricultural production are characterized by low population densities and frequencies of cultivation in a particular area.²³ When land is abundant relative to population, property rights can be effectively governed informally at the local level according to the ethics and logic of tradition and custom. Intensive modes of agricultural production are characterized by higher population densities and frequencies of cultivation. In such areas, the relative scarcity of land eventually stimulates a demand for more formal governance institutions to protect control and use rights, as well as provide predictable procedures for transferring property rights (e.g., sale, inheritance).

As the value of land increases as a productive asset, the demand for permanent and transferable rights further stimulates demand for more diversified governance structures that rely on the authority of the State. For both descriptive and analytic purposes, it is therefore useful to analyze rural land markets in Cambodia in the context of the various transitions from extensive to more intensive land use patterns.

The rationale for land titling programs, therefore, ultimately rests on theories that link investment incentives to secure property rights. The basic argument is that people are more likely to invest resources in productive enterprises when they are confident that they, or their heirs, will enjoy the benefits of such investments in the future. In the agricultural sector, farmers may obtain credit to invest in variable inputs, equipment and machinery, and infrastructure improvements.

Such investments generate increased demand for credit. In this sense, land titles are expected to increase people's access to formal credit institutions. This is especially important in terms of poverty reduction as land titles may enable poorer community members to access lower cost loans for productive purposes. As the demand for credit increases, so should the supply of credit also expand. In this sense, then land titling programs may also be expected to stimulate a more efficient financial services sector, which is a key component for macro-economic growth in the long run.

²³ Boserup (1965) provides an early discussion of extensive and intensive farming systems.

Land titling programs also involve efforts to govern land markets more efficiently so that scarce resources are eventually allocated to their most productive use. Land markets characterized by poor information, unpredictable procedures, and various conflicts, as in Cambodia, are economically inefficient because of the high transaction costs associated with the negotiation and enforcement of property rights and contractual exchange. Secure and predictable property rights help reduce procedural uncertainties and provide more accurate information about actual land values.

Land markets characterized by conflicts and ineffective governance are also socially inefficient. This is especially so in cases where people lose their land without fair and adequate compensation and are forced to migrate elsewhere in search of income opportunities. Another set of potential social costs concerns the distribution of land ownership. Over time, more efficient land markets may in fact result in a greater concentration of land in the hands of fewer households. The social costs associated with such a distribution must be offset by fair and adequate compensation for land, along with viable employment opportunities created by productive investments.

2.5. Research Methodology

The basic design of the Baseline Survey Project borrows heavily from the research framework used in the Thailand land titling study (Onchan and Aungsumalin, 2002), while adapting the model to test specific hypotheses relevant to Cambodia. The BSP employs a quasi-experimental design to evaluate the economic and social impact of land titles on individual households. The research is structured in a way to provide analytic comparisons between changes in the experimental and control groups between two points in time (i.e., before the project and after the project), as follows:

OCT0	=	the value of indicators/measures of the control group before the issuance of land titles.
OCT3	=	the value of indicators/measures of the control group after the issuance of land titles deeds.
OET0	=	the value of indicators/measures of the experimental group before the issuance of land title deeds.
OET3	=	the value of indicators/measures of the experimental group after the issuance of land title deeds.

As in the Thailand study, the basic approach to the analysis is to compare the percentage change between the experimental group and the control group, as follows:

$$\frac{OE_{t3} - OE_{t0}}{OE_{t0}} \times 100 \quad \text{with} \quad \frac{OC_{t3} - OC_{t0}}{OC_{t0}} \times 100$$

In some instances, we may also wish to analyze data in which:

$$\frac{OE_{t3}}{OC_{t3}} \quad \text{differs significantly from} \quad \frac{OE_{t0}}{OC_{t0}}$$

The Thailand study hypothesized that “the change in the experimental group that differs from the control group would then be considered the impact of the project.” It is not likely, however, that a land title alone will produce significant impacts in any of the above-mentioned areas. It is, therefore, necessary to consider how land titles interact with, or compliment, other factors to produce observable differences. For example, in order for land titles to enhance people’s ability to obtain formal credit, such institutions must in fact be physically accessible. The impact of agricultural investments is also enhanced by access to better technical and market information. In this sense, the availability of crop, animal, and fisheries extension services is an important variable. According to this point of view, then, land titles can act as catalysts for change when combined with other factors and enabling circumstances.

The basic Thailand model has also been adapted to take into account specific socio-economic circumstances of rural Cambodia and the ongoing development objectives associated with poverty reduction and gender mainstreaming. Given the increasing disparities of access to and control over wealth and resources in the rural sector, any analysis of land titling impacts must be sensitive to the distribution of benefits. For analytical purposes, therefore, the household data is disaggregated according to landholding size and gender of household head.

2.5.1. Site Selection

The selection of the four LMAP provinces for the study was based on a variety of factors, including: strategic location and infrastructure (e.g. roads), farming systems, and potential development trends that might impact on land markets and land use patterns.

Sihanoukville was selected because of its strategic location along the National Route 4 Development Corridor and the fact that tourism and infrastructure development (e.g., port development) will have profound impacts on land markets in that area. Takeo was selected because of relative homogeneity of traditional rice cultivation and its proximity to Phnom Penh

along National Route 2, which may be a source of demand that stimulates more diverse and productive farming systems in the future if farmers receive timely support and extension and infrastructure development. Kompong Cham was chosen because of its strategic location along National Route 6, including the Japan-Cambodia Friendship Bridge across the Mekong River that links much of Northeast Cambodia to the rest of the country, as well as many Cambodian products to markets and ports in Vietnam. Kompong Thom was selected because of its distance from Phnom Penh and its strategic location along National Route 6, linking Siem Reap to Phnom Penh. Tourism and trade traffic along the highway are likely to increase after having been improved.²⁴

The commune site selection was largely influenced by the LMAP project work sites and schedules. In general, four villages were chosen per commune based on discussions with commune council members and village chiefs. The criteria for village selection included land market development and activity, land use and farming systems (e.g., wet/dry season rice cultivation, *chamcar*, tree crops), infrastructure (e.g., roads, irrigation), population density, proximity and access to markets and administrative locations, and other economic activity (e.g., occupations).

In all, a total of 970 household interviews and 32 village surveys were conducted in the four LMAP survey provinces. Approximately, 30 households with agricultural land were selected in each village, although this number sometimes varied according to village size. Four different approaches were used to randomly select households in response to the varying quantity and quality of information available at the village level. These approaches included (a) selecting households on the basis landholding area; (b) number of plots; (c) counting every *n*th household from the village list; and (d) counting every *n*th house in the village.

Although the BSP focuses primary attention on households with both residential and agricultural land, the BSP interviewed as many families without agricultural land as possible (54 in all) within the time frame allowed by the work schedule. Given the fact that single women heads of households are widely believed to be among the most vulnerable social groups in Cambodia, special effort was made to ensure that this group was appropriately represented in the rural survey sample. Based on the reported number of single women heads of households residing in each village, a corresponding proportion were selected for interviews. A total of 225 female heads of household were interviewed in the LMAP survey areas.

²⁴ Kompong Chhnang was chosen to serve as the control province, largely because of its strategic location along Route 5 and proximity to Phnom Penh. A summary of the findings from Kompong Chhnang are included in the forthcoming baseline survey report.

2.6. Current Landholding Situation

The following discussion of the household data focuses on residential and agricultural landholding sizes, as well as household assets for both male and female-headed households.

2.6.1. Residential Landholdings

Of the 970 households in the LMAP area, 917 (about 94.5 percent) households own, on average, 1.1 plots of residential land, including 49 of 54 households without agricultural land. Of the 53 households that report not owning any residential land, 13 also do not own any agricultural land, 21 own less than 0.5 ha of agricultural land, and 11 own 1 hectare or less of agricultural land. In this sense, the percentage of households owning residential land then steadily increases along with agricultural landholding size. The percentage of female- and male-headed households that own residential land is fairly consistent across each landholding size.

About 39.3 percent of households acquired their residential land from the State, while 34.8 percent acquired residential land through inheritance. Another 17.6 percent purchased their residential land, and 6.8 percent acquired residential land by clearing. The percentage of residential plots acquired from the State generally increases along with landholding size, while the percentage acquired through inheritance decreases. The percentage acquired through purchase is fairly constant across all landholding sizes, except for those with no agricultural land who purchased 46.2 percent of their residential plots. This suggests that many of the landless (i.e., no agricultural land) in the LMAP survey group may never have acquired residential land from the State, or they lost their original plots and subsequently bought another one. The percentage of residential plots acquired through clearing (11.1 percent) is highest among the largest landholding households.

In terms of gender of household head, about 51.6 and 35.3 percent of female- and male-headed households respectively acquired their residential land from the State. The percentages for female-headed households are higher than male-headed households in each landholding interval. The opposite is true, however, concerning residential land acquired through inheritance. Male- and female-headed households acquired 37.7 and 25.8 percent of residential land respectively through inheritance, and the trend holds for each landholding interval. A similar pattern also holds for residential land acquired through purchase (except for the largest landholding size where there is only small variation). Oddly enough, a greater percentage of female-headed households reported acquiring residential land through clearing than did male-headed households. We would have expected a higher percentage of residential land acquisition through clearing among male-headed households

given their apparent advantage in potential labour resources. (See Table 2.4 below.)

2.6.2. Agricultural Landholdings and Assets

The LMAP survey sample shows that large landholders own a disproportionate share of the agricultural land. For example, households with less than one half of hectare make up 21.9 percent of the survey sample, but own only 3.8 percent of the land. Households with less than one hectare make up about 46.2 percent of the sample, but own 14.5 percent of the land. Meanwhile, households with 3 or more ha make up 14.4 percent of the households, but own 43.4 percent of the land. Households with 2 or more ha account for 27.7 percent of the households, yet own 63.5 percent of the agricultural land.

Another striking feature of the survey data is that households with smaller landholdings have fewer agricultural plots that are smaller in size relative to households with larger landholdings that have a greater number of larger-sized plots. In fact, Table 2.1 below shows that the number and size of plots steadily increases from one landholding interval to another. This pattern is consistent across nearly all villages, and there is very little deviation from the general pattern in the remaining villages.

Table 2.1: Household Agricultural Landholding Summary (ha)

Landholding	No. HH	Total Plots	Total Area	Area/HH	Plots/HH	Area/Plot
<0.5 (ha)	201	465	55.37	0.27	2.31	0.11
0.5 – 0.9	223	843	156.11	0.70	3.78	0.18
1.0 – 1.9	229	1,092	322.66	1.41	4.76	0.29
2.0 – 2.9	122	653	294.25	2.41	5.35	0.45
>3.0 (ha)	132	826	634.50	4.80	6.25	0.76
Total Sample	917	3,879	1,462.89	1.59	4.23	0.37

The most often cited explanation for this pattern begins with the land distribution of 1989 when efforts were made to equally divide good quality land (defined in terms of productivity and location) according to the number of working age household members. According to this formula, households with more working members received additional plots of land, some of which may have been of lesser quality, though larger in size. As a result, there was already a degree of structural variation in the 1989 land distribution when one considers landholding size by household.²⁵

²⁵ This explanation is based on focal group discussions with Commune Council members and village chiefs, as well as provincial LMAP officials.

The legacy of the 1989 land distribution is reflected in the fact that over 55 percent of households have acquired their agricultural land from the State. However, the data concerning the mode of acquisition also sheds light on how households with larger initial landholdings have since been able to acquire additional land. For example, the data suggests larger families with more household labour are better able to expand their holdings over time by clearing more land (Table 2.2). This proposition is supported by the data in Table 2.3 below showing that households with larger landholdings have more potential labour and other assets with which to clear additional land.

Table 2.2: Mode of Acquisition (percentage of total plots)

Land Size	State	Inherit	Purchase	Cleared	Total N
<0.5	52.9	33.6	11.6	1.9	467
0.5 – 0.99	57.2	23.5	15.9	3.2	844
1.0 – 1.9	62.5	18.6	13.6	5.3	1,095
2.0 – 2.9	55.2	17.5	16.4	10.8	659
>3.0	46.6	20.8	17.5	15.2	824
Total N	2,162	845	589	290	3,886 *
% of Total	55.6	21.7	15.2	7.4	

* Missing n = 3, donated by friends

Table 2.3 below also shows that on average larger households possess more capital assets and have higher incomes, in addition to more potential labour. This, in turn, suggests that households with more resources are better able to purchase additional land than smaller landholders. This proposition is also supported by the data in Table 2.2 above, which shows that larger households have a higher percentage of land acquisitions through purchase than do smaller households. In this sense, land transactions seem to play an important role in enlarging the original gap in landholding size among rural households.

Another set of explanations for the observed plot distribution pattern concerns the atomization of land through sales and/or inheritance, as cited in other studies (e.g., Biddulph, 2004). At the level of local transactions, larger households are purchasing additional plots from smaller households, who sell land in response to household crises or other reasons. Among households with smaller plots, the size and number of plots also decreases as families sub-divide their land to pass on to children. This proposition is also supported by the data in Table 2.2, showing a greater frequency of land acquisitions through inheritance among households with smaller landholdings.

Table 2.3: Household Assets* & Labour **

Landholding	Livestock	Durable Assets	Non-Farm FixAssets	Farm Assets Non-Machine	Farm Assets Machine	HH Labour
<0.5	85.69	33.31	18.31	3.58	6.65	3.3
0.5 – 0.9	149.22	39.96	8.82	9.86	17.87	4.1
1.0 – 1.9	186.88	52.47	18.90	13.67	30.72	4.0
2.0 – 2.9	220.04	47.78	11.46	21.98	37.21	4.8
>3.0	318.83	58.38	24.34	37.59	43.61	5.0
Total	179.45	45.49	16.63	15.75	25.78	4.1

* moeun riels

** Potential HH Labour includes male and female, aged 10 to 60 years, following CSES of Cambodia.

The strategies that people use when buying and selling land, as well as making decisions about inheritance, warrant further study. At first glance, it appears that larger landholders tend to buy land from small landholders in order to expand and consolidate landholding, while buyers from outside the community purchase land based on favourable market locations (e.g. road access). Meanwhile, smaller landholders sell land to acquire cash as needed. Agricultural land is often the last asset to be sold (except for residential land), and the decision concerning which plot to sell, or sub-divide and sell, often depends on how much cash is required at a given point in time. As smaller landholders sell land plot by plot, they reduce their production capacity, which in turns pushes them toward landlessness at an accelerating rate.

2.6.3. Gender of Household Head

Another striking feature of the data concerns the relationships between (a) landholding size, land acquisition, household assets and income, and labour resources and (b) the gender of household head. Generally speaking, the same pattern observed above concerning plot distribution in the LMAP survey areas holds for both male- and female-headed households. However, the average number and size of plots is less for female-headed households than for those headed by males. Male-headed households averaged 4.44 plots per household and 0.39 hectares per plot, while female-headed households averaged 3.78 plots per household and 0.30 hectares per plot (Table 2.4).

The data also shows that 34 percent of the female-headed households own less than one half hectare of agricultural land, while 18 percent of the households headed by males own less than one half hectare. Moreover, 60 percent of female-headed households own less than one hectare, while 42 percent of those headed by males own less than one hectare. Conversely, 17 percent of the household headed by females own more than 2 hectares of land, while 31 percent of the households headed by males own more than 2 hectares of land.

Table 2.4: Agricultural Land Summary by Gender

Land Size	No. HH *		Plots *		Area		Area/HH		Plots/HH		Area/Plots	
	M	F	M	F	M	F	M	F	M	F	M	F
<0.5	123	78	281	184	34.9	20.5	0.28	0.26	2.28	2.36	0.12	0.11
0.5 – 0.99	164	59	616	227	114.9	41.2	0.70	0.69	3.78	3.89	0.18	0.18
1.0 – 1.99	180	49	876	216	253.7	69.0	1.40	1.40	4.86	4.40	0.28	0.31
2.0 – 2.99	102	20	540	113	248.4	45.9	2.43	2.29	5.29	5.65	0.46	0.40
>3.0	113	19	714	112	547.3	87.2	5.36	4.59	6.32	5.89	0.76	0.77
Total	682	225	3,027	852	1,199	263.8	1.75	1.17	4.44	3.78	0.39	0.30

N = 9 missing HH; 13 missing Plots

The mode of acquisition also reveals several important factors concerning the relationship between gender of household head and land ownership. For example, female-headed households have a much higher percentage of plot acquisitions from State authorities (70.9 percent) than do male-headed households (51.3 percent). At the same time, the percentage of plot acquisitions by inheritance is much lower for female-headed households (11.2 percent) when compared to male-headed households (24.6 percent). This difference is, however, not surprising given traditional practices in rural Cambodia, where land tends to be passed along to sons.

Table 2.5: Land Acquisition by Gender (percentage of households)

Land Size/ha	State		Inherit		Purchase		Cleared		Total	
	M	F	M	F	M	F	M	F	M	F
<0.5	39.5	73.1	43.1	19.4	14.9	6.5	2.5	1.1	281	186
0.5 – 0.9	52.0	71.6	29.6	6.7	15.7	16.4	2.6	4.9	619	225
1.0 – 1.9	58.7	77.9	21.5	6.9	14.9	8.3	4.9	6.9	878	217
2.0 – 2.9	51.5	73.5	18.5	12.4	18.5	6.2	11.4	8.0	546	113
>3.0	46.1	50.0	22.1	12.5	16.7	22.3	15.2	15.2	712	112
Total N	1557	605	751	94	490	99	236	54	3036	853
% of N	51.3	70.9	24.7	11.0	16.1	11.6	7.8	6.3	78.1	21.9

Table 2.5 above also shows that the percentage of plot acquisitions by purchase and clearing are also lower for female-headed households than for male-headed households. Taken together, the lower percentages for inheritance, purchase, and clearing suggest that female-headed households are less able to acquire additional plots than male-headed households. Table 2.6 below helps explain why this observation may be accurate. It shows that female-headed households at each land interval have, on average, fewer assets and income than do male-headed households. Fewer assets, especially farm-related assets, suggest a constraint on the amount of land than can be farmed, while less income suggests a constraint on buying new land and making other investments.

Table 2.6: Household Assets* and Labour **

Land Size (ha)	Livestock		Durable Assets		Non-Farm FixAssets		Farm Assets Non-Machine		Farm Assets Machine		HH Labour	
	M	F	M	F	M	F	M	F	M	F	M	F
0											4.1	4.6
<0.5	110.9	74.3	36.4	28.1	29.9	2.4	3.7	3.4	9.2	2.0	3.6	2.9
0.5 – 0.99	158.4	134.6	40.7	37.8	10.4	3.3	11.2	5.8	22.1	3.4	4.2	3.8
1.0 – 1.99	204.9	117.5	62.4	14.1	23.9	0.8	14.8	9.5	36.7	5.2	4.5	2.2
2.0 – 2.99	240.2	127.6	51.7	27.8	12.8	5.3	23.5	13.2	41.5	11.6	4.9	4.4
>3.0	30.9	273.8	60.6	43.5	24.6	22.3	40.2	20.2	45.9	29.6	5.1	4.4
Total	198.2	121.9	50.7	28.8	20.4	4.1	18.2	7.8	31.4	6.7	4.4	3.4

* *meoun riels*** *Potential HH Labour includes male and female, aged 10 to 60 years, following SES Cambodia.*

These patterns corroborate other studies that highlight the many disadvantages that female-headed households face in terms of land tenure security and maintaining sustainable livelihoods.²⁶ However, there is insufficient data with which to trace such patterns over time. For example, at what point do women become single household heads, and what then happens to their landholding? We can assume that female-headed households probably received less land during the 1989 distribution based on the survey data regarding the amount of labour in male- and female-headed households, but what has happened to those who were widowed or abandoned since then?

2.6.4. Summary

Landholding size and the gender of the household head are good predictors of household labour, assets, and income. As a result, landholding size also provides a good indication of a household's potential capacity to benefit from land titling programs. In this sense, households with larger landholdings are generally in a better position to benefit from land titles than households with smaller landholdings. Households with large landholdings, more capital assets and labour, and higher incomes can be referred to as High Potential Impact (HPIs) households. Conversely, Low Potential Impact (LPIs) households have smaller agricultural land area and fewer plots, as well as less income, less labour, and fewer assets. The LPIs also include vulnerable households, such as those headed by single women.

2.7. Agricultural Investments, Productivity, and Land Use

The research theory predicts that secure land tenure will stimulate increases in production expenditures and investments in rice and/or other crop production in the LMAP project areas. The data shows that the distribution of expenditures

²⁶ Recall Biddulph, Robin (2000) and So *et al.* (2001).

and investment, as well as productivity, is structured according to landholding size. This suggests that the benefits from land titles will be similarly distributed, particularly in the absence of pro-poor development policies and practices.

2.7.1. Expenditures

Table 2.7 below shows that expenditures for rice production during the cropping season prior to the survey were dominated by labour for land preparation, transplanting, and harvesting, as well as chemical fertilizer. These inputs are then followed by water pumping fees, threshing, and land rental. The average amount of expenditures per household tends to increase along with landholding size. For example, the lowest two landholding intervals have average expenditures of 13.03 and 21.57 *moeun riels* per household respectively, while the upper two intervals have 31.6 and 51.98 *moeun riels* per household respectively. The middle interval has 31.77 *moeun riels* per households. Not only do the larger landholding households have more land in which to invest; they also tend to have more available resources with which to invest.

Table 2.7: Rice Production Inputs (*moeun riels*/hh)

Input	< .5		0.5 – 0.99		1.0 – 1.99		2.0 - 2.99		≥ 3.0		Total Ave.	
	M	F	M	F	M	F	M	F	M	F		
Ch. Fert.	5.8	5.7	10.6	8.7	12.0	8.3	13.6	8.9	17.6	32.7	11.21	
Pesticide	1.4	.8	2.1	1.2	2.0	1.1	1.5	1.5	3.1	3.1	2.06	
Pumping	3.2	2.7	4.0	4.0	5.1	4.1	7.5	3.0	11.5	15.0	5.59	
Lbr: Prep	4.6	3.1	6.7	5.2	11.6	7.1	10.6	5.5	18.4	17.3	9.01	
Lbr: Tran	6.8	5.7	9.2	8.3	11.8	8.8	14.5	11.1	22.5	33.5	12.2	
Lbr: Harv	5.3	3.4	6.2	4.0	8.3	5.4	12.1	9.9	13.5	18.3	8.46	
Threshing	2.7	2.3	2.8	2.3	3.9	3.2	5.8	3.6	6.7	9.3	4.2	
Repairs	1.5	1.1	2.2	1.6	2.3	2.4	1.7	.95	1.9	15.0	2.07	
Transport	1.8	2.0	2.7	2.6	3.2	2.6	3.5	1.9	6.6	3.9	3.23	
Rent.land	7.5		6.1	1.7	10.8		6.0		10.9		7.7	
Rent. Live	.2	5.0	4.9		3.2	5.0		6.0	10.0	1.5	4.48	
Other	4.6	.97	4.4	5.5	10.6	20.0	3.1	10.0	7.4	6.3	7.2	
Total	14.4	10.8	23.1	17.0	34.4	20.0	32.8	25.0	50.7	60.2	30.7	19.8
Total	13.03		21.57		31.77		31.6		51.98		28.2	

There is also a clear pattern of expenditures according to the gender of the household head. On average, male-headed households expended about 50 percent more than female-headed households for rice production. Moreover, male-headed households consistently expended more than female-headed households for nearly every input in each interval. This can be attributed to the fact that (1) female headed-households tend to have, on average, smaller

landholdings (Table 2.6 above), and (2) differences in the amount of resources, including labour, available to male- and female-headed households (Table 2.6 above). The only difference is in the largest landholding interval where female-headed households expended more than male-headed households. Much of this difference comes from expenditures for chemical fertilizers and labour for transplanting and harvesting. One possible explanation is that female-headed households use such investments to compensate for the lack of household labour.

2.7.2. Financial Sources for Expenditures

Table 2.8 below shows that nearly 90 percent of agricultural expenditures for rice production are financed by “own sources,” followed by loans from relatives and friends (8.3 percent), and then credit from “programs,” which include semi-formal savings and loans groups, MFIs, and commercial banks (2.3 percent). The most significant exception to the overall trend concerns chemical fertilizer, which is financed by 79 percent of “own sources” and 21 percent with loans from family, friends, and credit programs.²⁷ About 92 – 96 percent of the labour inputs for land preparation, transplanting, and harvesting are financed from “own sources”.

Table 2.8: Expenditure Sources for Selected Agricultural Inputs

Input	Own Sources		Relative/Friend		Credit Program		Total N
	N	%	N	%	N	%	
Chem. Fertilizer	473	79.0	106	17.7	20	3.3	599
Pesticide	195	96.1	4	2.0	4	2.0	203
Pumping	250	89.6	24	8.6	5	1.8	279
Land Prep.	355	92.4	19	4.9	10	2.6	384
Transplanting	387	92.6	23	5.5	8	1.9	418
Harvesting	357	95.5	12	3.2	5	1.3	374
Totals	2,017	89.4	188	8.3	52	2.3	2,257

There is, however, some variation when one considers the distribution of financing sources for various inputs across landholding size. For example, in order to finance labour inputs, the two largest landholding households borrow more from family and friends and credit programs than do smaller landholders. This observation suggests that the shift away from “own sources” in the direction of credit initially begins with borrowing from family and friends before progressing on to borrowing from formal credit institutions (see Section 5.0 below). It also suggests that such a trend may be initiated by households with larger landholdings.

²⁷ Traders are not specifically referred to in the baseline survey data, perhaps in part because the data refers to cash rather than in-kind loans.

Table 2.9 below shows that both the lowest and highest landsize intervals rely on family and friends for more than 20 percent of financing for chemical fertilizer inputs, while the second highest interval uses credit programs for 7.7 percent of financing. Part of the explanation for this may concern the relatively high expenditures for chemical inputs, which on average is about 11.21 *moen riels* per household (including about 5.8 *moen riels* for the small landholders). Households with smaller landholdings tend to have fewer resources available with which to finance such inputs from own sources, so more tend to rely on financing from family and friends. Though the larger landholding households may have more resources, they also have more land, and so may need to obtain loans from other sources with which to obtain larger amounts of fertilizer.

Table 2.9: Finance Sources for Chemical Fertilizer Inputs

Input	Own Sources		Relative/Friend		Credit Program		Total
	N	%	N	%	N	%	N
<0.5	99	75.0	30	22.7	3	2.3	132
0.5 – 0.99	131	82.4	23	14.5	5	3.1	159
1.0 – 1.99	112	78.9	26	18.3	4	2.8	142
2.0 – 2.99	64	82.1	8	10.3	6	7.7	78
>3.0	67	76.1	19	21.6	2	2.3	88
Totals	473	79.0	106	17.7	20	3.3	599

2.7.3. Productivity

The data in Table 2.10 below affirms the farm-size-productivity relationship observed elsewhere in Asia and Cambodia (Sopha and Acharya, 2002); namely, small farms tend to be more productive in terms of [rice] yields than large farms, irrespective of the gender of the household head. One reason given for this pattern is that small plots are usually subdivisions of more fertile land. This seems to fit the general pattern of land distribution in 1989 in Cambodia as discussed above. Another reason may be that small farmers tend to use better techniques and exercise better management in the absence of modern farming methods. Small farmers may also apply family labour and other owned inputs more intensively.

Table 2.10: Average rice yields of total harvested areas (kg /ha)

LandHolding	Male		Female		Total	
	HH	Yield	HH	Yield	HH	Yield
< 0.5	107	2,138	70	1,918	177	2,051
0.5 – 0.99	156	1,660	51	1,724	207	1,676
1.0 – 1.99	169	1,516	41	1,247	210	1,464
2.0 – 2.99	98	1,189	19	920	117	1,145
≥ 3.0	110	1,013	17	1,041	127	1,016
Totals	640	1,519	198	1,558	838	1,528

Small farmers in Cambodia also appear to apply purchased inputs more intensively on a per hectare basis than do the larger farms. Table 2.11 below provides a detailed summary of agricultural expenditures per hectare for selected inputs. Generally speaking, the two smaller landholding households expend more per hectare for each of the inputs than do the two larger landholding households. In terms of all inputs, the two smallest landholding households expended 51.3 and 32.4 *moen riels* per hectare respectively, while the two largest landholding households expended 18.5 and 19.5 *moen riels* per hectare respectively.

Table 2.11: Rice Production Inputs (*moen riels/ha*)

Input	< .5		0.5 – 0.99		1.0 – 1.99		2.0 - 2.99		> 3.0		Total Ave.	
	N	Amt	N	Amt	N	Amt	N	Amt	N	Amt	N	Amt
Ch. Fert.	131	23.0	159	15.7	139	10.7	77	8.5	87	8.4	593	14.1
Pesticide	23	3.1	45	4.4	53	1.6	35	0.9	46	1.4	202	2.23
Pumping	54	17.2	74	5.6	74	4.6	29	4.5	45	5.1	276	7.4
Lbr: Prep	91	14.8	90	9.9	88	9.7	55	5.1	54	6.1	378	9.8
Lbr: Tran	51	27.8	83	12.2	99	11.0	35	7.4	51	8.7	319	13.2
Total Input	169	51.3	202	32.4	185	29.4	104	18.5	121	19.5	781	31.9

Although small farms may be more productive in terms of land (kg per hectare) than larger farms, they are not as productive in terms of investment (kg per *moen riels*). Table 2.12 below shows that farms with less than 0.5 hectares of land get 39.98 kgs per every *moen riels* of expenditure, while farms with 2.0 – 2.99 ha and more than 3.0 ha get 61.89 kgs and 52.1 kgs of rice respectively from every *moen riels* of expenditure. In terms of helping small households improve their livelihoods and move out of poverty, this suggests that investment efficiency is just as important, if not more so, than the level of investment. In terms of land titling impacts, then, access to credit that can be used for investments needs to be complimented with extension services than can improve the productivity of capital.

The higher land productivity of small farms also does not translate into higher levels of average household production. Although small farms have higher yields per hectare, they also have much less land. Table 2.13 shows that households with less than 0.5 ha of land were able to produce only 640.3 kg of rice, despite their productivity advantage. Meanwhile, the largest farms produced a total of 3.27 MT of rice per household, even though they were only half as productive as the smallest farms.

Table 2.12: Productivity and Costs *

LandHolding (ha)	Yield(Kg/ha)	Expenditure (moeun riels/ha)	Cost (kg/moeun)	Cost ²⁸ (moeun/hh)
< 0.5	2,051	51.3	39.98	16.01
0.5 – 0.99	1,676	32.4	51.72	22.81
1.0 – 1.99	1,464	29.4	49.80	34.31
2.0 – 2.99	1,145	18.5	61.89	33.37
≥ 3.0	1,016	19.5	52.10	62.81

* Most recent cropping season (2003) prior to survey in January/February 2004.

Nor does the higher land productivity of small farms translate into higher levels of average production per potentially active labour. When we look at productivity measured in terms of household production per potentially-active household labour, we see that average output per potentially-active labour is much less in smaller landholding households than in larger landholding households. For example, households with less than 0.5 hectares produce 194 kgs per potentially active household members, while households with more than 3 hectares produce 654 kg per potentially active household members.

Table 2.13: Household Production Summary

Landsize (ha)	HH Labour	Yield (Kg/ha)	Area (ha/hh)		Total Prod. (kg/hh) & kg/lbr	
			Owned	Harvested	Yield x AreaHarv	kg/hh/lbr/hh
< 0.5	3.3	2,051	0.27	.3122	640.3	194.0
0.5 – 0.99	4.1	1,676	0.70	.704	1,180.0	287.8
1.0 – 1.99	4.0	1,464	1.41	1.167	1,708.5	427.1
2.0 – 2.99	4.8	1,145	2.41	1.8037	2,065.2	430.0
≥ 3.0	5.0	1,016	4.80	3.2208	3,272.3	654.4

This suggests that smaller farms are at a great disadvantage over the long-run as they must continue to use scarce household resources to make up for food shortages rather than invest more in production or other important activities, such as education for their children. (See Annex A.) It also underscores the problems associated with inefficient expenditures mentioned above. If farmers borrow to invest in production that does not produce enough

²⁸ These figures contrast with the figures for *moeun riels*/hh costs shown in Table 2.7 above. The figures in Table 2.7 were derived directly from interview responses to questions about costs, while the figure in Table 2.12 were calculated based on interview responses to questions about area and total production. That the two sets of figures are reasonably close to one another provides a kind of internal cross check on the accuracy of the data. If anything, the differences may suggest that respondents tend to underestimate yields and/or over estimate expenditures. This is not uncommon in rural Cambodia.

to meet household needs, let alone a surplus for sale, they may sink deeper into debt over time. This again highlights the need for complimentary extension services and infrastructure development in order to optimize land titling benefits in specific areas.

2.7.4. Land Use

As elsewhere in Cambodia, land in the LMAP survey areas is generally categorized as (1) residential land, (2) cultivable, agricultural land, or (3) common and/or state land, including forest and inundated coverage where fishing and cropping are practised. One critical challenge of poverty alleviation in Cambodia is to develop sustainable ways to allocate land use for more economically efficient uses. The diversification of land use can be one indicator of such efficiency for both residential and agricultural land. According to the research theory, land titles should stimulate the diversification of land use as landowners direct resources to more economically efficient uses.

2.7.4.1. Residential Land

The productive use of residential land is discussed in terms of land titling impacts and registration because in the Cambodian agrarian society, residential land is not only used for housing, but also for tree crops and small businesses, including livestock raising and home gardening, to supplement household incomes. Table 2.14 summarizes the range of uses for residential plots in the LMAP survey areas. About 92 percent of the LMAP survey group live on the residential land they own. About 24.9 percent of the household use their residential land for living only, while 64.2 percent use such land for both living and other activities, including crops (50 percent), business (9.8 percent) and small agri-business (4.4 percent). About 3.8 percent leave idle the residential land they own.

Table 2.14: Utilisation of Residential Plots by Landholding (ha)

Land Use Activity	0	< 0.5	0.5-0.99	1-1.99	2-2.99	> 3.0	Total
leave it idle	6%	2%	4%	3%	5%	7%	4%
Leasing out or rent out house	0%	0%	1%	0%	0%	0%	0%
Allowing relatives to temporarily stay without charge	2%	1%	0%	2%	3%	2%	2%
Living & plantation	37%	44%	50%	54%	53%	53%	50%
Plantation / vegetable (no-resident)	4%	3%	3%	6%	7%	6%	5%
Living and business	8%	13%	16%	15%	14%	14%	14%
Business only	0%	0%	0%	0%	1%	0%	0%
Living only	43%	37%	26%	20%	17%	18%	25%
Other	0%	1%	0%	0%	0%	0%	0%
Total	51	187	227	256	139	153	1,013

The diversification of residential land use seems to increase along with landholding size, as larger landholding groups appear to use a much smaller percentage of their residential land only for living. For example, only 18 and 17 percent of the upper two landholding households respectively use their residential land solely for living, while 37 and 26 percent of the two smaller landholding groups respectively use their residential land only for living.

2.7.4.2. *Agricultural Land*

The survey data shows that land use patterns become more diversified as landholding size increases. For example, the percentage of plots allocated for wet-season rice production steadily decreases from 89.1 percent for households with less than 0.5 hectares to 70.0 percent for household with more than 3 hectares. At the same time, the percentage of plots allocated for dry-season rice production steadily increases along with land size, from 2.8 percent for households with less than 0.5 hectares to 12.7 percent for households with more than 3 hectares. The percentage of plots allocated for *chamcar* production (6.7 percent overall) remains fairly constant across all landholdings, while the percentage of plots allocated for plantation (trees crops) and mixed crops is consistently low across all landholdings, averaging 0.1 percent overall. As a result, there appears to be considerable scope for future crop diversification in many of the LMAP survey areas.

In terms of the actual utilization of plots, about 90 percent of all plots are cultivated, although the percentage tends to decrease along with land size. The percentage of cultivated plots among female- and male-headed households is similar across all landholding sizes. The percentage of leased out plots (1.6 percent) is also fairly constant across all landholdings. Not surprisingly, the percentage of idle plots (7.6 percent overall) increases along with land size from 3.2 percent for households with less than 0.5 hectares to 11.5 percent for households with more than 3 hectares. Female-headed households have a slightly higher percentage of idle land, and also lease out a higher percentage of their plots than do male-headed households.

Of the 3,891 cultivable plots, 295 plots (about 7.6 percent) were left idle by 175 households during the last cropping season. The three main reasons that were cited included a lack of labour (34 percent), no profit (16 percent), and a lack of investment capital (9 percent). The remaining 42 percent of responses covered a wide range of additional reasons. A greater percentage of female-headed households (38 percent) than male-headed households (33 percent) cited a lack of labour. On the other hand, a greater percentage of male-headed households (18 percent) than female-headed households (9 percent) cited a lack of profit. The percentage shares for plots left idle because of a lack of investment capital was equal for both male- and female-headed households.

These household responses seem compatible with reasons given by key informants during focal group discussions, which also identified crop damage due to weather as a main reason for leaving land idle. Idle land can also be explained in part by fluctuating prices and various market distortions, such as speculation, especially in cases where idle land is owned by people from outside the village. Other reasons may include low yields because of poor soils and low investment in modern agricultural inputs, especially chemical fertilizer (Chan and Acharya, 2002).

As for actual cultivation, about 79% of the plots were used for wet-season rice production one time per year, while 7.3 percent were used for dry-season rice production one time per year. Not surprisingly, this cropping pattern closely corresponds to the land use allocation pattern described above; namely, that the percentage of plots used for one wet-season rice crop decreases somewhat as landholdings increase, while the percentage plots used for one dry-season crop increases with landholding size. About 4 percent of the plots were used for 2 wet-season rice crops and 3.8 percent were used for fruit and other trees.

Secure land tenure is expected to extend farmer investment horizons. Indeed, the evidence from Thailand (Onchan and Aungsumalin, 2002) suggests that land titling may stimulate some change in land use as cultivation moves away from low cost/low return crops (e.g., paddy production for home consumption) in favour of commercial crops and/or fruit or other tree crops that require more investment but have potentially higher returns over time. Although agricultural and market conditions are different in Cambodia, some farmers, particularly those with larger landholdings, may be expected to begin diversifying land use (e.g., *chamcar*, tree crops). The scope and scale of diversification may also be expected to increase at a faster rate along with landholding size. The rate of land utilization may also increase as farmers begin investing more in agricultural production, though perhaps slowly in the absence of policy measures that promote higher land utilization rates (e.g., taxes on larger idle plots). The impact of land titles in this regard may vary according to location and situational factors, including the availability of credit and extension services, market access (e.g., transportation and transaction costs, as well as other barriers) and product prices.²⁹ The full impact of land titles along these lines, however, may require more than three years to observe.

2.8. Credit Activity at the Household Level

Increased expenditures and investments for agricultural production, as well as other productive activities (e.g., SMEs), are expected to stimulate increased

²⁹ See Chandararot, Kang and Chan Sophal (2003) for a discussion concerning transaction costs in the agricultural sector.

demand for capital resources. In turn, land titles in the form of collateral are expected to increase people's access to formal credit institutions. This could be especially important in terms of poverty reduction as land titles may enable poorer community members to access lower cost credit for productive purposes.

As with expenditures and investments in agricultural production, however, some variations in credit activity can be expected according to landholding size and gender of household head in terms of frequency, size, and loan use. For example, the distribution of credit may vary according to the capacity of households to manage and service loans of various sizes. Poorer households that can only manage small loans in terms of collateral (e.g., plot size) or their ability to repay according to fixed schedules may continue to use other sources of informal credit (e.g., family and moneylenders) for various purposes. Meanwhile, households endowed with more land, capital assets, and income may use their land titles to obtain larger formal loans with which to expand upon or diversify their farming and/or business activities.

Table 2.15: Credit Sources (percentage of total loans)

Landholding (ha)	Relatives/Friends		Moneylender		NGOs		ACLEDA		MFIs		Total No. Loans		
	M	F	M	F	M	F	M	F	M	F	M	F	
0	13.3	25.0	26.7	33.3	10.0	0	10.0	25.0	4	0	16.7	30	12
<0.5	43.5	41.5	20.2	13.2	4.8	15.1	4.0	1.9	29.4	28.3	124	53	
0.5 – 0.99	53.7	38.9	13.6	11.1	8.6	25.0	8.6	2.8	5.4	22.2	162	36	
1.0 – 1.99	48.1	46.9	15.3	15.6	5.3	3.1	3.8	0	27.4	34.4	131	32	
2.0 – 2.99	36.0	30.0	12.5	40.0	15.6	10.0	9.4	0	27.6	20.0	64	10	
>3.0	43.2	28.6	10.8	28.6	12.2	7.1	8.1	7.1	25.8	28.5	74	14	
Total %	45.0	38.9	15.6	17.8	8.4	12.7	6.7	3.8	24.5	26.7	585	157	
Total Loans	263	61	91	28	49	20	39	6	143	42	585	157	
Total	324		119		69		45		185		742 *		
Tot. % Loans	43.7		16.0		9.3		6.1		24.9				

N = 1 missing

Within the LMAP survey areas, 531 households (about 54.7 percent of the households) reported a total of 743 loans during the six-month period prior to the survey. This represents about 1.40 loans per borrowing household. Male- and female-headed households accounted for 79 and 21 percent of the loans respectively. Table 2.15 shows that about 60 percent of the loans were obtained in the informal sector, including relatives and friends (43.7 percent) and moneylenders (16.0 percent). The remaining 31 percent of the loans were obtained in the formal sector, either from ACLEDA (6.1 percent) or an MFI (24.9 percent). About 9 percent of the loans were obtained in the “semi-formal” NGO sector.

Table 2.16 below shows that loans for productive investments accounted for 36 percent of all credit activity within the LMAP survey group, including small business-related activities (12 percent), agricultural production (14.4 percent), and animal raising (9.6 percent). Male-headed households borrowed more for agriculture and business, while female-headed households borrowed more for animal raising.

Health care (21.7 percent) and food shortages (17.9 percent), however, account for almost 40 percent of all credit activity among the survey group. A similar percentage of male- and female-headed households borrowed for health care, while a greater percentage of female-headed households borrowed to cover household food shortages. This suggests that male- and female-headed households may be similarly affected by illness, while female-headed households have less capacity to produce sufficient food. The remaining 24.5 percent of the loans were for other activities, which included social ceremonies, home construction, and transportation.

Table 2.16: Loans Uses by Landholding

Land Size	Agriculture		Business		Food Shortage		Health		Livestock		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0	3.3	0	33.3	33.3	20.0	8.3	10.0	33.3	10.0	8.3	23.3	16.8	30	12
<0.5	9.5	3.8	8.7	9.6	15.9	25.0	31.7	19.2	7.9	15.4	26.3	27.0	126	52
0.5 – 0.99	12.3	19.4	13.0	2.8	15.4	30.6	18.5	11.1	9.3	16.7	31.5	19.4	162	36
1.0 – 1.99	15.8	0	10.5	0	21.8	28.1	27.1	31.3	5.3	21.9	19.5	18.7	133	32
2.0 – 2.99	28.1	20.0	10.9	0	20.3	10.0	15.6	10.0	4.7	20.0	20.4	40.0	64	10
>3.0	25.0	42.9	20.8	7.1	6.9	0	15.3	14.3	12.5	0	19.5	35.7	72	14
Total %	15.3	10.9	13.3	7.1	16.7	22.4	22.1	19.9	8.0	15.4	24.6	24.3		
Total Loans	90	17	78	11	98	35	130	31	47	24	144	38	587	156
Total N	107		89		133		161		71		182		743	
Tot. %	14.4		12.0		17.9		21.7		9.6		24.5			

Generally speaking, the upper two landholding intervals tend to borrow less often than the remaining households, perhaps because they are able to use their own resources for capital investments. The upper three landholding intervals tend to borrow more for production purposes than do the lower landholding groups. The level of borrowing for food shortages appears somewhat consistent across all households, though smaller landholders tend to borrow more for health care than larger landholders.

Table 2.17 below shows that the average size of loans from ACLEDA was about 89 *moeun riels*, which is considerably higher than each of the other sources. Somewhat surprisingly, the average size of loans from MFIs, 28.13 *moeun riels*, is slightly less than the average size of loans from relatives and

friends, 29.5 *moeun riels*. The average size of loans from moneylenders and NGOs is similar at 23.77 *moeun riels* and 25.19 *moeun riels* respectively. Generally speaking, the average amount of loans for production activities (i.e., business, agriculture, animal raising) is significantly higher than the average size of consumption loans for food shortages and health care. However, the average size of “other loans” (42.72 *moeun riels*) is second only to loans for business activities (53.26 *moeun riels*).

Table 2.17: Credit Sources by Loan Use

Purpose	Relative/Friends		Moneylender		NGOs		ACLEDA		MFIs		Total Loans	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
Agriculture	36	21.97	22	22.39	14	20.71	6	59.2	28	33.07	106	26.9
Business	18	72.57	14	24.46	14	20.79	14	137.9	28	29.14	88	53.26
Food Shortage	70	13.61	25	19.98	3	10.67	10	27.7	26	12.36	134	15.55
Health	82	24.88	22	21.05	7	24.00	7	45.0	42	15.16	160	22.65
Livestock	15	36.53	5	14.8	17	19.82	4	140.0	34	28.59	75	33.23
Other	103	38.07	31	30.87	14	44.22	6	124.2	30	53.93	184	
Total	324	29.5	119	23.77	69	25.19	47	89.00	188	28.13	747	31.60
% of Total		43.40		15.9		9.2		6.3		25.2		

It is useful to compare this data with other studies. For example, Sophal and Acharya (2002) found that the largest source of credit was relatives and friends (44.5 percent), followed by moneylenders (33.1 percent) institutional sources (15.7 percent) and then other sources. Though the percentage of loans from relatives and friends is remarkably similar, the percentage of loans from moneylenders (16 percent) and formal institutions (31 percent) is practically the reverse of the baseline survey sample. One possible explanation for this may be due to a greater availability of formal credit institutions in many of the BSP survey areas relative to those found in the areas that Sophal and Acharya studied. In this sense, the baseline survey data may reflect the growing prevalence of MFIs in various parts of Cambodia since 2001. This suggests that in areas where the supply of formal credit is increasing, people prefer formal institutions over moneylenders, *when they can afford the interest rates and meet the formal requirements for collateral.*³⁰

As for the average size of loans, the baseline survey data corresponds closely with the rural livelihoods data. In both studies, the average size of the loans was largest from ACLEDA, the most prominent MFI operating in Cambodia at the time of the rural livelihoods study (Sophal and Acharya, 2002), followed by moneylenders and then relatives and friends. The main difference concerns the fact that other MFIs were not mentioned in the

³⁰ See Kang (2002) and Ballard (2004) regarding recent developments in the rural credit markets.

livelihoods studied. Though we would expect that the average size of these loans would fall somewhere in between ACLEDA and moneylenders, the baseline survey found the average size of loans from MFIs was actually less than those of family and friends. One possible explanation for this is that the MFIs have evolved from smaller NGO-sponsored credit associations and often retain certain elements of their original structure (e.g., small groups) and objectives (e.g., small-scale loans for the poor).

In fact, people across all income levels and/or landholding intervals have traditionally borrowed from multiple sources depending on need and circumstances (e.g., emergencies, seasonality). As a result, decisions about the source and use of loans are both strategic (e.g., investments) and tactical (e.g., household cash flows). For example, although people may prefer borrowing from an NGO or MFI, medical emergencies or an inability to meet collateral requirements for agricultural inputs may push them to continue borrowing from moneylenders or traders. As a result, rural financial markets remain highly fragmented, and therefore any long-term shift from informal to formal borrowing may not necessarily follow a linear progression.

The research theory predicts that the number and average amount of loans for investment in agricultural production and other income generating activities (e.g., animal raising, small business) will increase relative to loans for consumption and other activities. The research theory also predicts that as loan volume and amounts increase, the source of loans will shift more from the informal to the formal sector. This assumes, however, that the demand for loans for health care and supplemental food will decrease relative to production loans. For example, researchers have observed that short-term distress borrowing places a significant burden on the poor and may crowd out potentially productive investments (Murshid, 1998; Chan and Acharya, 2002). Researchers have also linked health care costs with assets sales, including land (Biddulph, 2004). Health care and food security are thus two areas requiring concerted attention if policies designed to direct financial resources to their most productive uses are to succeed.

This set of hypotheses also assumes that credit markets perform reasonably well in a particular area (i.e., credit is available, transaction costs are low), and that people have a propensity and capacity to borrow. It also assumes that interest rates at formal institutions are relatively more favourable than those of local moneylenders. All other factors being equal, we should expect to see a larger volume of credit activity in areas where formal institutions are relatively more accessible to local farmers. This suggests that farmers located closer to district and/or market centres along roads are more likely to obtain formal credit than those located in more distant or remote areas.

There is some evidence to support this set of hypotheses. For example, Chan and Acharya (2002) observed that people tend to borrow more in villages where activities are commercialized because of a larger degree of market integration. People also borrowed larger amounts in some villages than in others. They suggest that the frequency, size, and use of credit may be related to the degree of modernization of agriculture and/or the vibrancy of non-farm activities.

Table 2.18 below shows similar variations in the LMAP survey areas. For example, Trapaeng Sab (Takeo), Srayov (Kompong Thom), and Sambour (Kompong Cham) are among the most economically active communes in the survey sample in terms of their location along major highways and proximity to commercial centres. They have three of the highest loan frequencies, three of the highest borrowing rates (number of loans per borrowing household), and the highest percentages of loans from formal sources, which include ACLEDA and MFIs. Ti Pou (Kompong Thom) is less integrated with area markets and less economically diverse due to its location. Ti Pou also has the lowest frequency of borrowing and the lowest percentage of formal borrowing.

Table 2.18: Distribution of Loans by Commune and Source

Commune	Informal	Semi-Formal	Formal	Total Loans	
				No.	No/HH
Trap. Sab	44.3	8.4	33.6	131	1.03
Roveang	62.2	7.3	22.9	109	1.18
Sra Yov	58.1	11.8	30.1	93	1.50
Tipo	79.0	3.0	16.9	77	.65
Sambo	70.2	0	29.8	114	1.16
Srangae	85.7	1.1	13.2	91	1.12

The distribution for borrowing for production and consumption also varies somewhat according to commune. For example, in Sambour and Srayov, productive activities accounted for 56.1 and 36.6 percent of the loans respectively. In Ti Pou, however, only 14.3 percent of the loans were for production, while 63.6 percent were for consumption.

2.9. Conclusion

The degree to which secure land tenure rights can contribute to social development, economic growth, and poverty reduction in the rural sector depends in large measure on the capacity of the public administration to govern and enforce property rights effectively. The impact of land titles is likely to be strongest when people believe in the government's capacity and commitment to upholding and enforcing land rights in a fair and transparent manner. In this sense, people in the baseline survey areas have expressed a great deal of initial faith in the land titles that LMAP is currently issuing.

The benefits from land titles also depend on local circumstances, including (a) the level of land market activity, (b) the availability of credit, extension services, health care and other social services, (c) infrastructure development and (d) location relative to transport and markets. The benefits for households and society are likely to be greatest in areas with active land markets and easy access to development services. The contribution of land titles to rural development and poverty reduction can be optimized by targeting land titling efforts in areas where government agencies, NGOs and other donors, and private investors are active.

The benefits from land titles also depend on household characteristics. Landholding size and the gender of the household head tend to be good predictors of household labour, assets, and income, and provide a good indication of a household's potential capacity to benefit from land titling programs. Households with larger landholdings are in a better position to benefit from land titles than households with smaller landholdings. At the same time, male-headed households also tend to be in a better position to benefit more from land titles than female-headed households. The benefits for disadvantaged and vulnerable households can be enhanced by targeting land titling efforts in areas where social services and development resources are focused on the poor. This is of particular concern for households that subsist on the precipice of landlessness.

Improved land tenure security, in the form of land titles, is expected to stimulate more agricultural investments and allocate land to more economically efficient uses. The rate of agricultural investments will likely vary according to landholding size, with larger landholding households investing more than smaller landholding households. The rate and type of agricultural investments will also depend on a variety of other factors, including the availability of institutional credit and extension services in a given area and on local conditions (e.g., weather, soil conditions). The rate of land use diversification will also depend on a variety of factors, including market prices and market information. Larger landholders are expected to diversify land use at a faster rate over time, although the actual impact may not be observable after only three years. Larger landholding households may also increase their utilization rates of land.

Land titles are also expected to promote access to institutional credit by serving as form of collateral. The actual impact of land titles on credit access, however, will depend on other factors that affect people's borrowing behaviour, including the terms of institutional credit, household shocks and emergencies, expectations about production and market prices, and alternative credit arrangements. Generally speaking, a larger volume of credit activity can be expected in areas where formal institutions are easily accessible. Farmers located closer to district and/or market centres along roads are more likely to

obtain formal credit than those located in more distant or remote areas. There will also be some variations according to landsize and gender of household head in terms of frequency, size, and loan use. For productive purposes, smaller landholding households with fewer resources will obtain smaller loans and less frequently, while larger landholding households will take out larger loans and more often.

The benefits for disadvantaged households can also be increased by policies that specifically link land titling efforts to pro-poor development objectives. Two potential policy areas include credit and public finance. For example, policies and practices that sustain higher interest rates in the formal sector undermine potential benefits from land titles by discouraging people from obtaining credit. Policies aimed at reducing interest rates would improve credit access among small landholders. Meanwhile, large, idle landholdings encourage land speculation and conflicts, as well as impede land use diversification and higher land utilization rates. A tax on unused land of a certain amount would reduce speculation and promote higher utilization rates, as well as provide revenue for the government.

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ANNEX A: Rice Sufficiency

A commonly used indicator for rural household well-being concerns food security as measured by the number of months for which the household produces enough rice for home consumption or surplus for possible sale. For example, households that produce enough rice for sale are considered better off than households that produce only enough rice for three months consumption. Rice sufficiency data can also be an indicator of various household crises, such as draught or flood that can result in crop damage.

Within the LMAP survey group, 28.2 percent of the household produced a surplus that could be used for sale, while 12.9 percent produced enough for home consumption. About 18.9 percent produced enough for 7-10 months of home consumption, which meant they had to buy rice for 2-5 months, while another 15.3 percent produced enough for 3-6 months. About 10 percent of the households only produced enough for 3 months or less, while 14.5 percent had to buy rice for the entire year (See Table A.1 below).

Rice sufficiency corresponds closely to landholding size. Generally speaking, the percentage of households producing enough rice or a surplus tends to increase along with landholding size, while the percentage of households that must buy rice for 9 or more months out of the year decreases sharply as landholding size increases. Larger landholding households also seem to have an advantage over smaller landholders in other respects as well. For example, households with 3 or more hectares of land account for 23 percent of the surplus producing households, even though they account for only 13 percent of the households in the survey sample. Households with .5 hectares or less (including the landless) account for 6.8 percent of surplus producers, while accounting for 27 percent of the households in the population. Meanwhile, landless households account for 37 percent of households that must buy all their rice, yet they represent 6.3 percent of all households.

Table A.1: Rice Sufficiency

Landsize (ha)	Surplus		Enough		7-10 mos		3-6 mos		< 3 mos		buy all		total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0	5	0	3	0	0	0	0	0	0	1	32	20	40	21
<0.5	9	5	13	4	32	21	33	20	19	17	17	11	123	78
0.5 – 0.9	52	12	17	13	45	16	25	9	14	3	11	5	164	58
1.0 – 1.9	65	12	33	7	30	7	24	9	15	8	13	6	180	49
2.0 – 2.9	40	10	15	1	13	3	13	0	7	3	14	3	102	20
>3.0	56	7	17	2	15	1	11	4	9	2	5	3	113	19
Total N	227	46	98	27	135	48	106	42	64	34	92	48	722	245
Total	273		125		183		148		98		140		967	

Interestingly enough, households with 2 or more hectares account for 24 percent of the households that must buy all rice. At first glance this does not appear correct, as one would expect households with that much land to produce at least some rice. One possible explanation for this is crop loss due to pest, flood, or draught. This would also help explain why the smaller landholders had to buy all their rice as well. This proposition is supported by the data concerning household crises and shocks showing that 67 households in the LMAP survey group experienced at least some crop damage from pests, including 15 households with 3 hectares or more of agricultural land. A total of 398 households also reported crop damage from flood or draught, including 71 households with 3 or more hectares of land.

The rice sufficiency data concerning the gender of household head shows male-headed households tend to have an advantage over female-headed households. For example, male-headed households account for 83.2 percent of surplus producing households, while accounting for 74.6 of all households. Meanwhile, female-headed households account for 34 percent of the households that must buy rice year round, though they account for 25 percent of all households. Female-headed households also account for 53.1 percent of households that only produced enough rice for 3 three months or less, and 39.6 percent of the households that produced enough for 3-6 months.

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Table 1: Main Economic Indicators

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GDP at Current Price (Billion Riels)	6215.6	6611.7	7754.4	8478.1	9246.9	10563.3	11714.9	12454.8	13220.7	14226.4	14991.4
GDP at Current Price (Million US\$)	2222.3	2573.7	3143.2	3211.4	3091.6	2799.0	3071.6	3231.7	3369.2	3631.0	3749.7
GDP at Constant 2000 Price (Billion Riels)	8189.2	8788.1	9562.5	9972.2	10364.7	10671.0	11474.7	12454.8	13181.7	13883.2	14497.8
GDP at Constant 2000 Price (Million US\$)	2124.9	2280.3	2481.2	2587.5	2689.3	2768.8	2977.4	3231.7	3420.3	3602.3	3761.7
GDP per capita, at Current Price (US\$)	239.0	260.8	308.2	310.6	298.4	244.7	264.8	264.9	269.4	283.3	285.4
GDP per capita, at Constant Price 2000(US\$)	228.5	231.1	243.3	250.2	259.6	242.1	256.7	264.9	273.5	281.0	286.3
Real GDP (% increase)	-	7.31%	8.81%	4.28%	3.94%	2.95%	7.53%	8.54%	5.84%	5.32%	4.43%
GDP Deflator in Riel (% change)	-	-0.88%	7.78%	4.84%	4.94%	10.96%	3.13%	-2.05%	0.30%	2.17%	0.91%
GDP Deflator in US\$ (% change)	-	7.92%	12.24%	-2.03%	-7.38%	-12.06%	2.05%	-3.07%	-1.49%	2.33%	-1.11%
Inflation in Riel (December 2000=100, year average)	75.15%	-0.50%	7.80%	7.15%	7.96%	14.78%	4.03%	-0.79%	0.22%	3.29%	1.15%
Inflation in US\$ (December 2000=100, year average)	3.50%	8.33%	12.26%	0.13%	-4.71%	-9.03%	2.94%	-1.82%	-1.57%	3.45%	-0.87%
Riel/US\$ parity (official, year average)	2797	2569	2467	2640	2991	3774	3814	3854	3924	3918	3998
Domestic Revenue (% GDP)	4.64%	8.91%	7.94%	8.84%	9.15%	8.96%	11.35%	11.41%	11.57%	12.25%	11.81%
Budget Expenditure (% GDP)	9.73%	15.26%	15.36%	15.58%	13.66%	14.87%	15.57%	16.70%	19.04%	20.81%	19.58%
Overall Public Deficit (% GDP)	-5.09%	-6.35%	-6.89%	-7.01%	-4.45%	-5.97%	-4.34%	-5.25%	-7.05%	-8.46%	-6.63%
Exports of Goods (% GDP)	12.77%	19.04%	27.21%	20.05%	23.81%	32.15%	36.77%	43.36%	46.63%	48.21%	54.57%
Imports of Goods (% GDP)	21.20%	28.91%	37.76%	33.38%	34.42%	41.05%	51.80%	60.01%	62.15%	63.72%	69.22%
Trade Balance (% GDP)	-8.43%	-9.87%	-10.55%	-13.33%	-10.61%	-8.90%	-15.03%	-16.65%	-15.52%	-15.50%	-14.65%

Table 1: Main Economic Indicators

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Current Account Balance, incl. Official transfers (% GDP)	-4.19%	-4.30%	-1.16%	-1.34%	-3.63%	-3.73%	-6.75%	-4.41%	-1.09%	-0.66%	-3.49%
External Contribution to Economy (% GDP)	14.13%	14.45%	19.09%	25.75%	14.69%	13.12%	13.36%	14.48%	14.58%	14.82%	14.36%
Total Saving (% GDP)	13.82%	17.45%	19.93%	25.80%	20.26%	21.76%	20.89%	21.20%	23.40%	23.68%	20.94%
Net Foreign Reserves (Million US\$)	62.0	70.0	109.9	164.3	197.0	322.9	349.2	410.8	466.9	547.7	576.0
Net Foreign Reserves (Months of imports G&S)	1.2	1.0	1.0	1.5	1.9	2.8	2.2	2.2	2.3	2.4	2.3
Gross Foreign Reserves (Million US\$)	71.0	99.6	181.7	233.7	262.1	390.1	422.2	484.1	548.2	636.7	676.2
Gross Foreign Reserves (Months of imports G&S)	1.4	1.4	1.6	2.2	2.5	3.4	2.7	2.6	2.7	2.8	2.7
External Debts – Recognized (%GDP)	0.22%	3.04%	4.78%	8.76%	11.10%	14.02%	14.40%	16.16%	18.26%	20.67%	24.18%
Amount of Riel (Million US\$)	100.0	84.8	114.9	127.6	167.2	149.3	147.8	152.5	168.7	225.6	256.1
Amount of Riel (% change)	16.61%	-15.15%	35.51%	10.99%	31.09%	-10.70%	-1.04%	3.22%	10.59%	33.75%	13.51%
Amount of Riel (% M2)	66.00%	48.37%	43.68%	36.94%	42.93%	45.84%	39.08%	32.02%	30.07%	30.73%	30.62%
Amount of Foreign Currency Deposits (Million US\$)	51.5	90.5	148.2	217.7	222.3	176.5	230.4	323.8	392.3	508.6	580.3
Amount of Foreign Currency Deposits (% change)	81.97%	75.82%	63.68%	46.95%	2.09%	-20.62%	30.58%	40.52%	21.16%	29.64%	14.10%
Amount of Foreign Currency Deposits (% M2)	34.00%	51.63%	56.32%	63.06%	57.07%	54.16%	60.92%	67.98%	69.93%	69.27%	69.38%
Total Liquidity M2 (Million US\$)	151.5	175.3	263.1	345.3	389.5	325.8	378.2	476.3	561.0	734.2	836.4
Total Liquidity M2 (% increase)	32.05%	15.78%	50.05%	31.24%	12.80%	-16.36%	16.08%	25.94%	17.78%	30.88%	13.92%
Total Liquidity (% GDP)	6.82%	6.81%	8.37%	10.75%	12.60%	11.64%	12.31%	14.74%	16.65%	20.22%	22.31%
Population (Million)	9.30	9.87	10.20	10.34	10.36	11.44	11.60	12.20	12.51	12.82	13.14

Source: CDRI, based on data from Cambodian Government, World Bank, IMF, and ADB.

Table 2: GDP by Sector at Price 2000 (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, Fisheries & Forestry	858.0	963.3	999.6	989.4	1043.3	1139.5	1202.2	1186.2	1180.1	1186.6	1213.0
Crops	422.4	425.5	472.6	484.8	474.8	546.6	613.4	624.7	624.8	579.0	645.7
Livestock & Poultry	189.8	188.4	208.9	218.0	217.1	230.5	228.9	213.3	205.9	211.5	204.0
Fisheries	145.5	165.2	181.5	170.2	183.3	193.3	224.1	227.9	249.3	304.5	296.6
Forestry & Logging	100.3	184.1	136.6	116.4	168.1	169.1	135.9	120.3	100.1	91.5	66.6
Industry	304.3	349.8	411.9	482.5	530.1	541.9	556.1	724.7	804.6	916.1	1018.0
Mining	4.8	5.1	5.7	6.4	5.9	6.4	6.4	6.3	6.8	7.9	7.8
Manufacturing	157.2	190.0	230.3	274.2	351.7	370.4	378.3	515.5	568.2	643.0	752.9
Food, Beverage & Tobacco	66.5	71.0	72.4	78.2	79.5	81.6	83.7	85.1	85.8	86.6	88.4
Textile, Apparel & Footwear	23.4	31.0	56.3	88.9	139.7	162.5	197.9	343.6	401.9	474.2	580.8
Wood, Paper & Publishing	23.9	41.9	54.5	57.3	80.0	74.5	40.0	28.5	20.6	19.5	19.1
Chemicals, Plastic & Rubber	20.1	20.2	20.2	22.5	21.8	21.0	24.0	24.1	24.2	25.8	27.3
Other Manufacturing	23.3	26.0	27.0	27.3	30.8	30.8	32.8	34.1	35.7	36.9	37.2
Electricity, Gas & Water	7.1	6.4	9.4	9.4	9.6	10.1	10.4	13.1	15.7	16.5	16.2
Construction	135.2	148.2	166.6	192.5	163.0	155.0	161.1	189.8	213.8	248.7	241.1
Services	892.4	863.1	953.9	985.7	992.5	1014.4	1081.4	1147.5	1230.9	1299.3	1332.0
Trade	357.5	310.4	326.4	333.5	364.1	372.7	379.6	371.2	368.7	371.4	367.5
Hotel & Restaurants	73.5	92.7	138.9	129.1	128.0	127.8	179.9	197.4	222.3	247.5	244.4
Transport & Communication	140.7	156.8	160.5	171.9	150.3	149.1	160.8	185.3	201.4	216.6	234.2
Finance	10.5	12.7	30.5	32.5	33.6	30.5	31.5	38.1	47.8	57.3	65.0
Public Administration	43.5	66.2	65.7	77.1	79.8	85.1	80.0	81.8	109.7	117.3	121.5
Real Estate & Business	189.7	145.8	150.2	151.7	155.7	161.8	167.9	173.9	179.7	186.3	193.2
Other Services	77.0	78.4	81.8	90.0	81.0	87.5	81.7	99.8	101.3	102.9	106.2
Taxes on Products	77.5	113.3	148.1	158.8	145.6	113.7	173.2	214.5	251.5	256.7	255.2
Less: Subsidies	0.6	1.2	2.8	5.3	2.0	3.9	3.0	8.1	8.5	11.1	15.8
Less: Imputed Bank Charges	6.7	8.0	29.6	23.7	20.2	36.7	32.6	33.1	38.3	45.3	40.6
Gross Domestic Product (GDP):	2124.9	2280.3	2481.2	2587.5	2689.3	2768.8	2977.4	3231.7	3420.3	3602.3	3761.7

Source: CDFI, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 3: GDP by Sector at Current Prices (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, Fisheries & Forestry	885.3	1089.9	1355.0	1311.5	1283.6	1226.9	1307.0	1186.2	1151.8	1187.3	1223.8
Crops	417.9	501.8	714.7	717.0	665.0	669.2	679.3	624.7	598.3	557.6	631.8
Livestock & Poultry	172.9	192.6	221.0	233.0	209.1	200.0	241.0	213.3	196.6	210.2	206.7
Fisheries	192.6	192.4	216.8	210.0	197.9	192.5	244.7	227.9	245.6	313.2	306.2
Forestry & Logging	101.9	203.1	202.6	151.4	211.5	165.2	142.0	120.3	111.3	106.2	79.0
Industry	318.5	400.2	488.8	570.2	569.3	523.7	560.3	724.7	805.5	940.1	1019.9
Mining	4.9	5.3	6.2	7.7	6.7	6.2	6.5	6.3	6.6	7.9	9.5
Manufacturing	186.3	240.0	291.8	340.6	375.8	356.1	383.4	515.5	559.5	644.5	728.8
Food, Beverage & Tobacco	74.6	84.3	96.3	100.7	92.5	82.4	86.3	85.1	82.4	86.4	86.5
Textile, Apparel & Footwear	36.2	46.9	76.9	107.3	149.9	165.5	199.7	343.6	398.3	474.8	559.3
Wood, Paper & Publishing	20.8	44.9	42.5	50.2	52.2	60.5	41.7	28.5	22.4	22.9	22.1
Chemicals, Plastic & Rubber	28.9	32.6	40.1	46.5	44.0	18.1	21.5	24.1	21.1	27.0	27.9
Other Manufacturing	25.8	31.2	36.1	35.9	37.2	29.6	34.2	34.1	35.3	33.3	33.0
Electricity, Gas & Water	9.2	10.8	15.4	14.5	12.9	11.9	10.9	13.1	19.7	27.0	26.5
Construction	118.1	144.1	175.4	207.4	173.9	149.5	159.5	189.8	219.7	260.8	255.2
Services	949.7	978.5	1154.3	1166.9	1097.6	969.8	1055.6	1147.5	1206.3	1284.7	1295.6
Trade	351.7	346.9	392.6	418.2	396.9	347.9	372.1	371.2	362.5	371.9	371.6
Hotel & Restaurants	77.6	113.0	152.4	137.5	132.2	119.9	174.0	197.4	224.9	256.9	250.9
Transport & Communication	134.5	156.0	174.0	185.2	163.6	141.9	150.3	185.3	194.3	210.3	222.8
Finance	8.5	10.7	31.0	32.8	32.7	26.6	29.3	38.1	37.5	31.6	35.1
Public Administration	50.8	79.1	89.5	100.0	90.4	75.4	82.7	81.8	105.4	120.7	122.5
Real Estate & Business	222.5	174.4	192.7	166.1	180.0	164.3	162.8	173.9	176.7	183.4	180.6
Other Services	104.1	98.4	122.3	127.1	101.8	94.0	84.3	99.8	105.1	109.9	112.0
Taxes on Products	75.1	113.6	179.5	192.5	164.3	115.3	181.8	214.5	243.8	254.8	248.2
Less: Subsidies	0.8	1.7	4.8	5.7	2.1	3.8	3.1	8.1	8.1	10.8	15.0
Less: Imputed Bank Charges	5.4	6.7	29.6	23.9	21.1	33.0	30.0	33.1	30.1	25.0	22.7
Gross Domestic Product (GDP)	2222.3	2573.7	3143.2	3211.4	3091.6	2799.0	3071.6	3231.7	3369.2	3631.0	3749.7

Source: CDRI, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 4: GDP by Expenditures at Prices 2000 (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumption Expenditures	1903.8	2001.3	2078.8	2178.4	2281.6	2396.5	2549.8	2785.0	2955.7	3104.5	3292.2
Public	195.4	219.6	223.0	236.7	254.6	275.9	297.0	324.3	359.3	394.1	438.1
Private	1708.4	1781.7	1855.8	1941.7	2027.0	2120.6	2252.8	2460.6	2596.4	2710.4	2854.1
Investment	372.1	533.0	584.8	653.3	582.5	617.3	722.2	755.2	809.5	846.6	783.0
Public	157.7	171.2	188.5	187.5	197.9	225.9	251.6	272.2	304.3	330.6	284.8
Private	214.4	361.7	396.3	465.8	384.7	391.4	470.6	483.0	505.2	516.0	498.2
Exports	433.5	578.8	906.0	777.3	817.2	1039.9	1453.3	1970.5	2184.8	2338.4	2631.8
Merchandise, f.o.b.	324.0	472.5	720.3	569.6	637.3	856.5	1128.2	1476.1	1597.7	1734.7	2091.3
Services	109.5	106.3	185.7	207.7	179.9	183.4	325.1	494.3	587.1	603.7	540.5
Less: Import of Goods and Services	594.2	821.2	1079.9	1016.4	978.1	1288.6	1753.2	2288.0	2529.4	2892.7	2942.7
Merchandise, f.o.b.	465.0	671.1	911.2	825.4	830.0	1094.6	1471.5	1950.3	2166.1	2317.9	2549.8
Services	129.2	150.1	168.7	191.0	148.1	193.9	281.7	337.7	363.3	374.8	393.0
Statistical Discrepancy	9.6	-11.6	-8.5	-5.1	-13.9	3.7	5.3	9.0	-0.3	5.6	-2.5
GDP at Prices 2000	2124.9	2280.3	2481.2	2587.5	2689.3	2768.8	2977.4	3231.7	3420.3	3602.3	3761.7

Source: CDFI, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 5: GDP by Expenditures at Current Prices (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumption Expenditures	2148.6	2418.4	2851.2	2797.7	2788.5	2483.4	2873.2	2982.0	2920.7	3109.1	3381.9
Public	132.6	282.3	284.2	299.4	271.0	248.5	287.3	307.3	360.8	401.5	440.3
Private	2015.9	2156.1	2567.0	2498.3	2517.5	2234.9	2585.8	2674.6	2559.9	2707.6	2941.6
Investment	307.2	449.0	626.5	828.6	626.3	609.0	641.8	685.2	788.3	859.8	785.0
Public	83.6	130.5	198.5	200.9	151.4	167.6	190.8	232.2	280.7	354.1	293.7
Private	223.6	318.5	428.0	627.7	475.0	441.3	450.9	453.0	507.6	505.7	491.3
Exports	381.5	589.8	1040.9	870.9	937.4	1078.4	1424.3	1831.5	2096.9	2349.5	2572.4
Merchandise, f.o.b.	283.7	490.0	855.2	644.0	736.0	900.0	1129.3	1401.1	1571.2	1750.6	2046.2
Services	97.8	99.8	185.7	226.9	201.4	178.4	294.9	430.3	525.7	598.9	526.1
Less: Import of Goods and Services	615.0	883.6	1375.3	1285.8	1260.6	1371.8	1867.6	2267.0	2436.7	2687.3	2989.5
Merchandise, f.o.b.	471.1	744.0	1186.8	1072.0	1064.0	1149.1	1591.0	1939.3	2094.0	2313.5	2595.6
Services	143.9	139.6	188.5	213.8	196.6	222.7	276.7	327.7	342.7	373.8	394.0
Statistical Discrepancy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GDP Expenditures	2222.3	2573.7	3143.2	3211.4	3091.6	2799.0	3071.6	3231.7	3369.2	3631.0	3749.7

Source: CDR, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 6: Implicit Price Index Riel (2000=100)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, Fisheries & Forestry											
Crops	71.8	78.6	96.8	101.3	108.7	119.9	109.6	100.0	97.5	97.9	101.5
Livestock & Poultry	66.1	68.1	67.7	73.2	74.8	85.0	104.2	100.0	97.2	101.0	105.1
Fisheries	96.1	77.6	76.5	84.5	83.8	97.5	108.1	100.0	100.3	106.7	107.1
Forestry & Logging	73.7	73.5	94.9	89.1	97.6	95.6	103.4	100.0	113.2	118.0	123.0
Industry											
Mining	73.5	69.2	70.2	81.9	87.6	95.6	99.1	100.0	99.3	100.7	125.8
Manufacturing								100.0			
Food, Beverage & Tobacco	81.4	79.1	85.1	88.2	90.3	98.9	102.0	100.0	97.7	101.4	101.5
Textile, Apparel & Footwear	112.4	100.9	87.4	82.7	83.3	99.7	99.9	100.0	100.9	101.8	99.9
Wood, Paper & Publishing	63.3	71.5	49.9	60.0	50.6	79.5	103.3	100.0	110.8	119.6	119.6
Chemicals, Plastic & Rubber	104.4	107.9	127.2	141.5	157.0	84.6	88.6	100.0	88.5	106.5	105.9
Other Manufacturing	80.2	80.2	85.7	90.1	93.9	94.1	103.4	100.0	100.8	91.6	91.9
Electricity, Gas & Water	94.1	112.0	104.7	105.4	105.1	116.0	104.4	100.0	127.8	166.5	170.0
Construction	63.4	64.8	67.4	73.8	82.8	94.4	98.0	100.0	104.6	106.6	109.8
Services											
Trade	71.4	74.5	77.0	85.9	84.6	91.4	97.0	100.0	100.1	101.8	104.9
Hotel & Restaurants	76.6	81.3	70.2	73.0	80.2	91.9	95.7	100.0	103.0	105.5	106.5
Transport & Communication	69.4	66.3	69.4	73.8	84.5	93.2	92.5	100.0	98.2	98.7	98.7
Finance	58.8	55.8	65.2	69.2	75.4	85.5	92.1	100.0	80.0	56.0	56.0
Public Administration	84.8	79.6	87.2	88.9	87.9	86.7	102.3	100.0	97.8	104.6	104.6
Real Estate & Business	85.1	79.7	82.1	75.0	89.7	99.4	96.0	100.0	100.1	100.1	97.0
Other Services	98.1	83.7	95.7	96.7	97.5	105.2	102.1	100.0	105.6	108.6	109.4
Taxes on Products less Subsidies	70.3	66.8	77.6	83.0	87.6	99.3	103.9	100.0	98.7	100.9	100.9
Less: Subsidies	100.0	94.8	110.9	73.4	80.1	93.3	103.7	100.0	96.5	98.7	98.7
Less: Imputed Bank Charges	58.8	55.8	64.0	69.2	81.3	87.9	90.9	100.0	80.0	56.0	58.0

Source: CDRI, based on data from NIS

Table 7: Implicit Price Index \$ (2000=100)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, Fisheries & Forestry	103.2	113.1	135.6	132.5	123.0	107.7	108.7	100.0	97.6	100.1	100.9
Crops	98.9	117.9	151.2	147.9	140.1	122.4	110.7	100.0	95.8	96.3	97.8
Livestock & Poultry	91.1	102.2	105.8	106.9	96.4	86.8	105.3	100.0	95.5	99.4	101.3
Fisheries	132.4	116.4	119.5	123.4	107.9	99.6	109.2	100.0	98.5	102.9	103.2
Forestry & Logging	101.6	110.3	148.3	130.1	125.8	97.7	104.5	100.0	111.2	116.1	118.6
Industry	104.7	114.4	118.6	118.2	107.4	96.6	100.7	100.0	100.1	102.6	100.2
Mining	101.3	103.8	109.6	119.5	112.9	97.6	100.1	100.0	97.5	99.0	121.3
Manufacturing	118.5	126.3	126.7	124.2	106.9	96.1	101.4	100.0	98.5	100.2	96.8
Food, Beverage & Tobacco	112.2	118.7	132.9	128.8	116.4	101.0	103.1	100.0	96.0	99.7	97.8
Textile, Apparel & Footwear	154.9	151.4	136.5	120.7	107.3	101.8	100.9	100.0	99.1	100.1	96.3
Wood, Paper & Publishing	87.3	107.3	78.0	87.6	65.2	81.2	104.4	100.0	108.8	117.6	115.3
Chemicals, Plastic & Rubber	143.9	161.9	198.7	206.6	202.3	86.4	89.5	100.0	86.9	104.8	102.1
Other Manufacturing	110.5	120.3	133.9	131.5	121.0	96.1	104.5	100.0	99.0	90.1	88.6
Electricity, Gas & Water	129.6	168.1	163.6	153.8	135.4	118.5	105.5	100.0	125.5	163.8	163.9
Construction	87.4	97.2	105.3	107.7	106.7	96.4	99.0	100.0	102.7	104.9	105.8
Services	106.4	113.4	121.0	118.4	110.6	95.6	97.6	100.0	98.0	98.9	97.3
Trade	98.4	111.8	120.3	125.4	109.0	93.3	98.0	100.0	98.3	100.1	101.1
Hotel & Restaurants	105.5	122.0	109.7	106.6	103.3	93.8	96.7	100.0	101.2	103.8	102.7
Transport & Communication	95.6	99.5	108.4	107.7	108.9	95.2	93.5	100.0	96.4	97.1	95.1
Finance	81.0	83.7	101.9	101.0	97.2	87.3	93.1	100.0	78.6	55.1	54.0
Public Administration	116.8	119.4	136.2	129.8	113.3	88.5	103.4	100.0	96.1	102.9	100.8
Real Estate & Business	117.3	119.6	128.3	109.5	115.6	101.5	97.0	100.0	98.3	98.5	93.5
Other Services	135.2	125.6	149.5	141.2	125.6	107.4	103.2	100.0	103.7	106.8	105.5
Taxes on Products less Subsidies	96.9	100.2	121.2	121.2	112.9	101.4	105.0	100.0	96.9	99.3	97.3
Less: Subsidies	137.8	142.2	173.3	107.2	103.2	95.3	104.8	100.0	94.8	97.1	95.1
Less: Imputed Bank Charges	81.0	83.7	100.0	101.0	104.8	89.8	91.9	100.0	78.6	55.1	55.9
Gross Domestic Product (GDP):	104.6	112.9	126.7	124.1	115.0	101.1	103.2	100.0	98.5	100.8	99.7

Source: CDR, based on data from NIS

Table 8: Implicit Price Index Riel (2000 = 100)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumption Expenditures											
Public	82.7	79.6	84.6	88.9	91.2	100.2	100.9	100.0	102.2	103.6	104.5
Private	69.0	66.8	72.6	77.5	84.7	97.2	101.0	100.0	100.0	104.2	105.4
Investment											
Public	63.4	64.8	67.4	75.8	82.8	98.4	101.8	100.0	108.1	108.9	109.3
Private	75.7	75.1	75.0	76.0	85.0	102.6	102.2	100.0	102.3	101.6	102.3
Exports											
Merchandise, f.o.b.	73.0	75.0	76.0	78.0	91.2	102.9	99.1	100.0	102.0	102.9	101.5
Services	64.8	62.6	64.0	69.0	83.6	97.3	98.9	100.0	101.6	100.8	101.0
Less: Import of Goods and Services											
Merchandise, f.o.b.	71.5	73.9	82.6	85.0	88.6	96.7	97.7	100.0	100.5	101.5	105.6
Services	65.2	62.0	76.0	76.7	82.0	97.4	100.8	100.0	101.0	101.4	104.0

Source: CDRi, based on data from NIS

Table 9: Implicit Price Index \$ (2000 = 100)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Consumption Expenditures											
Public	114.0	119.4	132.2	129.8	117.5	102.3	101.9	100.0	100.4	101.9	100.7
Private	95.0	100.3	113.3	113.2	109.1	99.3	102.1	100.0	98.2	102.5	101.6
Investment											
Public	87.4	97.2	105.3	110.7	106.7	100.4	102.8	100.0	106.2	107.1	105.4
Private	104.3	112.7	117.2	110.9	109.5	104.7	102.3	100.0	100.5	99.9	98.6
Exports											
Merchandise, f.o.b.	100.6	112.5	118.7	113.9	117.5	105.1	100.1	100.0	100.2	101.2	97.8
Services	89.3	93.9	100.0	111.9	107.7	99.4	99.9	100.0	99.7	99.2	97.3
Less: Import of Goods and Services											
Merchandise, f.o.b.	101.3	110.9	129.0	129.9	114.2	98.7	98.7	100.0	98.7	99.8	101.8
Services	89.8	93.0	118.7	111.9	105.7	99.5	101.8	100.0	99.2	99.7	100.3

Source: CDRi, based on data from NIS

Table 10: Budget Implementation (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003
Domestic Revenue	103.1	229.3	249.7	283.0	283.0	250.9	348.7	368.8	389.8	444.9	442.9
Current Revenue	103.1	229.3	249.7	269.1	278.9	242.0	345.1	361.2	387.5	440.7	435.0
Tax Revenue	77.9	141.9	173.0	202.5	199.7	180.8	252.5	269.6	279.5	313.0	306.2
Non-Tax Revenue	25.2	87.4	76.7	66.6	79.2	61.2	92.6	91.6	108.0	127.7	128.8
Capital Revenue	0.0	0.0	0.0	14.9	4.1	8.8	3.6	7.6	2.3	4.2	8.0
Budget Expenditure	216.2	392.8	482.7	500.3	422.4	416.1	478.1	539.5	641.4	755.6	734.1
Current Expenditure	132.6	262.3	284.2	299.4	271.0	248.5	287.3	307.3	360.8	401.5	440.3
Wages	63.7	112.4	134.5	130.4	128.5	119.1	135.8	133.6	129.7	149.6	154.2
Non-Wages	69.0	149.9	149.7	169.0	142.5	129.4	151.5	173.8	231.0	251.9	286.2
Capital Expenditure	83.6	130.5	198.5	200.9	151.4	167.6	190.8	232.2	280.7	354.1	293.7
Domestic financing	1.8	30.6	22.1	23.3	30.3	32.0	58.6	80.0	72.1	86.2	83.6
External assistance	81.8	100.0	176.4	177.5	121.1	135.6	132.2	152.2	208.5	267.9	210.1
Expenditure adjustments	-	-	16.4	-8.8	1.9	-2.0	-3.9	1.0	14.1	3.4	42.4
Overall Surplus (Deficit):	-113.1	-163.4	-216.6	-225.1	-137.5	-167.2	-133.3	-169.8	-237.6	-307.3	-248.7
Financing	113.1	163.2	216.6	225.1	137.5	167.2	133.4	167.5	237.6	307.3	248.7
Foreign Financing	85.0	168.2	217.2	218.2	155.9	134.5	135.1	180.1	226.7	318.8	222.0
Budget support	3.2	51.5	42.2	56.8	27.6	0.4	1.1	29.3	13.8	45.6	34.8
Project aid	81.8	116.8	190.3	177.1	128.6	134.1	134.0	150.8	213.9	275.3	202.1
Amortization on external debt	-	-	-15.3	-15.7	-0.3	0.0	0.0	-	-1.1	-2.0	-14.9
Domestic Financing	28.1	-5.0	-1.1	-3.6	-13.7	31.1	-11.8	-3.9	2.7	-41.0	25.6
Net bank financing	10.9	-10.0	2.1	-6.5	-16.3	32.0	-19.3	-30.5	-16.2	-26.8	-1.0
Other MEF's account	-	-	-	-0.6	-3.3	1.7	0.8	-0.4	1.0	-1.8	0.5
Treasury Bill (from bidding)	-	-	-	-	-	-	-	-	-	-	12.5
Private Sector	-	1.0	-3.3	4.5	4.7	-1.3	7.4	28.6	18.5	-11.8	13.1
\$Acc.-gap between NBC and MEF	-	4.0	0.1	-0.9	1.2	-1.3	-0.6	-1.7	-0.6	-0.7	0.5
Outstanding Operations	-	-	0.5	10.4	-4.7	1.7	10.0	-8.8	8.2	29.4	1.1
Error	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	-2.3	0.0	0.0	0.0

Source: CDR1, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 11: Monetary Survey (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Net Foreign Assets	50.6	152.1	222.9	333.6	391.7	457.0	529.3	673.4	784.4	950.0	1011.9
Foreign Assets	126.4	245.8	363.7	466.1	533.8	583.9	657.6	792.5	913.6	1087.8	1191.2
of NBC	20.7	118.8	196.5	273.9	301.0	443.4	509.5	610.9	696.3	914.4	981.4
of Deposit Money Banks	105.7	127.0	167.2	192.1	232.8	140.5	148.1	181.6	217.3	173.3	209.7
Foreign Liabilities	-75.7	-93.7	-140.8	-132.5	-142.1	-126.9	-129.3	-119.1	-129.1	-137.8	-179.3
of NBC	-7.3	-29.6	-73.4	-71.3	-65.1	-67.2	-72.8	-72.9	-79.0	-96.2	-103.5
of Deposit Money Banks	-68.4	-64.1	-67.3	-61.2	-77.0	-59.7	-55.5	-46.2	-50.1	-41.6	-75.8
Net Domestic Assets	100.8	23.2	40.2	11.8	-2.2	-131.2	-151.1	-197.1	-223.4	-215.7	-175.4
Domestic Credit	146.7	150.4	181.0	214.9	232.9	222.3	229.8	235.5	221.3	239.4	303.7
to Government (net)	79.8	55.7	60.0	48.3	18.0	47.3	27.0	0.9	-19.1	-30.3	-32.1
- Claims on Government	93.0	83.7	88.1	81.0	70.7	76.5	74.3	70.8	69.1	78.8	90.5
- Deposits of Government	-13.2	-28.0	-28.2	-32.7	-52.7	-29.2	-47.3	-69.9	-88.3	-109.1	-122.6
to Non-Government	66.9	94.6	121.0	166.6	214.9	175.0	202.8	234.6	240.4	269.7	335.8
- State Enterprises	2.6	2.3	2.1	2.0	2.0	1.6	2.7	0.9	1.8	0.5	0.0
- Private Sector	64.3	92.3	118.9	164.6	212.9	173.5	200.1	233.7	238.7	269.2	335.8
o/w: in Foreign Currency	41.5	71.8	114.0	159.9	181.7	168.8	190.3	219.7	224.3	252.9	304.9
Others	-45.9	-127.1	-140.8	-203.2	-235.1	-353.5	-380.9	-432.6	-444.7	-455.1	-479.1
Restricted Deposits	-9.5	-11.4	-11.6	-31.2	-13.7	-19.2	-20.9	-22.4	-25.4	-24.3	-27.4
Capital & Reserves	-64.8	-188.4	-191.3	-248.4	-288.4	-404.9	-429.4	-465.8	-499.4	-493.9	-524.9
Others	28.4	72.7	62.1	76.4	67.0	70.6	69.4	55.7	80.1	63.1	73.1
Liquidity (M2):	151.5	175.3	263.1	345.3	389.5	325.8	378.2	476.3	561.0	734.2	836.4
Money	86.7	77.7	112.9	124.6	128.6	144.1	139.5	140.3	155.5	206.7	235.5
Currency Outside Banks	80.7	68.6	101.7	113.6	119.0	134.9	128.4	128.6	147.3	194.7	228.2
Demand Deposits	6.0	9.1	11.2	11.0	9.6	9.2	11.0	11.7	8.1	12.0	7.3
Quasi-Money	64.7	97.7	150.2	220.7	260.9	181.7	238.7	336.0	405.5	527.5	600.9
Time and Savings Deposits	13.2	7.1	2.1	3.0	38.6	5.2	8.3	12.2	13.2	18.9	20.6
Foreign Currency Deposits	51.5	90.5	148.2	217.7	222.3	176.5	230.4	323.8	392.3	508.6	580.3

Source: CDRI, based on data from the Cambodian Government, World Bank, IMF and ADB.

Table 12: Balance of Payments (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Current Account (incl. Official transfers)	-93.2	-110.8	-36.6	-42.9	-112.4	-104.5	-207.4	-142.5	-36.8	-23.9	-131.0
Current Account (excl. Official transfers)	-229.6	-320.8	-371.6	-479.9	-300.6	-303.5	-415.4	-413.5	-310.8	-303.9	-437.6
Trade Balance	-187.4	-254.0	-331.6	-428.0	-328.0	-249.1	-461.6	-538.2	-522.8	-562.9	-549.3
Exports f.o.b.	283.7	490.0	855.2	644.0	736.0	900.0	1129.3	1401.1	1571.2	1750.6	2046.2
- Domestic exports	149.5	262.0	268.0	295.0	534.0	604.0	997.2	1283.1	1462.0	1639.2	1929.4
- Re-exports	134.2	228.0	587.2	349.0	202.0	296.0	132.1	118.1	109.1	111.4	116.8
Imports, f.o.b.	-471.1	-744.0	-1186.8	-1072.0	-1064.0	-1149.1	-1591.0	-1939.3	-2094.0	-2313.5	-2595.6
- of which: retained imports, f.o.b.	-332.8	-503.0	-601.0	-723.0	-765.0	-853.0	-1458.9	-1821.2	-1984.9	-2202.1	-2478.8
Service Balance	-46.1	-39.8	-2.8	13.1	4.7	-44.4	18.3	102.7	183.1	225.1	132.2
Receipts	97.8	99.8	185.7	226.9	201.4	178.4	294.9	430.3	525.7	598.9	526.1
- of transportation	10.1	11.0	31.0	50.0	51.0	37.0	48.0	71.0	87.0	88.9	83.0
- of travel	72.7	79.8	125.7	145.9	119.4	113.4	212.4	303.9	380.4	453.5	389.0
- other	15.0	9.0	29.0	31.0	31.0	28.0	34.6	55.4	58.3	56.4	54.1
Payments	-143.9	-139.6	-188.5	-213.8	-196.6	-222.7	-276.7	-327.7	-342.7	-373.8	-394.0
- of transportation	-33.6	-72.0	-84.0	-100.0	-94.0	-98.0	-136.8	-170.2	-187.1	-213.6	-233.7
- of travel	-7.0	-7.0	-8.0	-15.0	-13.0	-20.0	-28.4	-33.2	-37.0	-38.2	-36.2
- other	-103.3	-60.6	-96.5	-85.8	-89.6	-104.7	-111.4	-124.3	-118.6	-122.0	-124.1
Income Balance	-16.1	-47.0	-57.2	-85.0	-42.5	-34.4	-42.0	-50.0	-41.0	-39.1	-183.1
Receipts	0.5	2.0	9.7	13.0	16.0	17.0	20.0	32.0	25.0	26.2	43.7
Payments	-16.6	-49.0	-66.9	-98.0	-58.5	-51.4	-62.0	-82.0	-66.0	-65.3	-226.8
- of which: interest	-1.8	-15.0	-18.0	-19.0	-13.0	-17.0	-15.0	-19.0	-17.0	-15.7	-30.5
Current Transfers	156.4	230.0	355.0	457.0	253.4	223.4	278.0	343.0	344.0	353.0	469.3
Private Transfers (net)	20.0	20.0	20.0	20.0	65.2	24.4	70.0	72.0	70.0	73.0	162.8
Official Transfers (net)	136.4	210.0	335.0	437.0	188.2	199.0	208.0	271.0	274.0	280.0	306.5
Financial Account	123.6	127.3	122.4	259.0	219.8	154.1	124.0	100.0	94.1	122.2	171.9
Official Loans (excluding IMF)	123.4	73.2	60.0	89.0	62.1	42.0	44.0	75.0	87.1	141.2	148.6
- drawings #	123.4	73.2	72.0	96.0	62.1	49.0	50.0	81.0	95.1	150.0	156.4
- repayments	0.0	0.0	-12.0	-7.0	0.0	-7.0	-6.0	-6.0	-8.0	-8.9	-7.8
Non-Official Investment (net)	0.2	54.1	62.4	170.0	157.7	112.1	80.0	25.0	7.0	-19.0	23.3
Foreign Direct Investments (net)	54.1	69.0	150.8	294.0	203.7	120.7	144.0	112.0	113.0	98.0	77.3
Other Investments (net)	-53.9	-14.9	-88.4	-124.0	-46.0	-8.6	-64.0	-87.0	-106.0	-117.0	-54.0

Table 12: Balance of Payments (million US\$)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Errors and Omissions	-9.6	19.7	-59.6	-138.4	-75.7	-19.0	130.9	128.1	15.3	73.4	-10.3
Overall Balance:	20.8	36.2	26.2	77.7	31.7	30.7	47.5	85.6	72.6	171.6	30.6
Financing	-20.8	-36.2	-26.5	-77.7	-31.7	-30.7	-47.5	-85.6	-72.6	-171.6	-30.6
Net foreign assets of NBC	-23.0	-51.4	-31.2	-74.6	-32.1	-30.7	-54.4	-97.1	-81.0	-177.0	-43.3
Change in reserve assets	-23.0	-71.2	-73.5	-74.6	-32.1	-29.3	-62.7	-101.1	-90.3	-186.9	-41.3
Use of IMF credit (million US\$)	0.0	19.8	42.3	0.0	0.0	-1.4	8.3	4.0	9.3	9.9	-1.8
Exceptional financing (except for 2002)	2.2	15.2	4.7	-3.1	0.4	-	6.9	11.5	8.4	5.4	12.8

Source: CDFI, based on data from the Cambodian Government, World Bank, IMF and ADB.

CAMBODIA'S ANNUAL ECONOMIC REVIEW

The Cambodia Development Resource Institute takes great pleasure in publishing its third *Annual Economic Review*. As in the past, this study aims to provide a comprehensive review of the Cambodian economy and an analysis of its performance in 2002 on the basis of the most recently available data.

This study attempts to understand the constraints facing non-rice crop production in Cambodia, and in particular focuses on trade and marketing costs and distortions that result in low farm-gate prices and poor producer incentives. The study is preliminary in nature based largely on secondary data and selective interviews with key marketing and trading agents. In our view, even these preliminary findings are interesting enough to merit publication in this volume.

We hope that the analysis and findings of this year's *Annual Economic Review* will be useful to policy makers, practitioners and analysts in the wider development community.

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