

MAPPING EDUCATION NEEDS IN CAMBODIA

Ministry of Education, Youths and Sports, Royal Government of Cambodia
United Nations World Food Programme

March 2003

With support from the Italian Cooperation and
International Fund for Agricultural Development (IFAD)

FOREWORD

We are pleased to present you with this report “Mapping Education Needs in Cambodia.” The report is the result of close collaboration between the Royal Government of Cambodia, Ministry of Education, Youth and Sports (MOEYS), and the United Nations World Food Programme (WFP).

This report presents findings of the first ever attempt to identify education needs in Cambodia at a low level of geographic disaggregation, namely at commune and district level. The report focuses on two types of education needs: those for the adult population and those for children to achieve a basic education of nine years schooling. Due to the lack of accurate information and data at the commune level, the basic education analysis has been concentrated at district level, while the analysis for adult education has been undertaken at the commune level. The analyses focus on various education-related indicators, which were jointly determined through a series of consultations with experts and key staff from various institutions specialized in the education sector.

The results give a broad indication of needs for both adult and basic education. It is expected that they will be helpful for policy makers and strategic planners alike to focus future interventions in the education sector in line with government priorities to combat poverty. Given limited resources, the findings of this report could be a useful tool to channel assistance for education interventions in disadvantaged areas where indicators suggest that education needs are the most pressing.

It is important to note that the analysis does not cover all aspects of education needs in the country; rather it focuses more on education outcomes. Users may therefore wish to consider incorporating other indicators to better meet their specific purposes.

Our grateful acknowledgement is extended to all those involved in making this report possible. In particular, we would like to thank the United Nations Children’s Fund (UNICEF), and the United Nations Educational, Scientific and Cultural Organization (UNESCO) for providing significant inputs for the analysis. We would also like to take this opportunity to acknowledge the support provided by the Italian Cooperation and the International Fund for Agricultural Development (IFAD) for disseminating the analysis results.

Rebecca Hansen
Representative/Country Director

H.E. Tol Lah
Senior Minister and Minister of Education

TABLE OF CONTENTS

Fore word	i
Table of Contents.....	ii
1 Introduction	1
2 Data, Measurement and Analysis	2
3 Basic Education	3
4 Adult Education	6
5 Results and Discussions	8
6 Limitations of the Analysis	9

1. Introduction

In recent years, the education sector has increasingly become a strong focus of the Royal Government of Cambodia's (RGC) reforms, with the Ministry of Education, Youth and Sports (MOEYS), launching a major overhaul of this sector. MOEYS has been working extensively with other stakeholders, mainly the donor community and NGOs, to produce several important strategic documents to guide the future development of this sector. The most important recently developed strategic documents are the Priority Action Program (PAP), Education Strategic Plan (ESP) and the Education Support Sector Program (ESSP), a 5-year rolling plan.

All of these documents attempt to provide precise strategic direction and guidance for allocating resources according to the priorities for future development of this sector. They address key strategic components to improve the education status of the Cambodian population at all levels, from primary school to tertiary education. The plans focus on equity, efficiency, quality and access to education with a strong emphasis on pro-poor strategies and increasing female participation at all levels, especially secondary and tertiary. They are also based on a vision to extend basic education for all from 6 years to 9 years.

These strategic documents call on all stakeholders to not only implement the outlined activities but also, especially in the case of donors and funding agencies, to support the sector in terms of budgeting. This process has been successful over the last few years in strengthening financial planning and budgeting at both central and provincial levels. All concerned institutions have been working together to pool funds for the education sector and the resources have been channeled to meet the highest priorities.

Despite the attempts described above, and an increase of almost 60 percent in MOEYS budget allocations between 2000 and 2002, the funds required to implement ESP/ESSP policies and programs have normally exceeded those available. In response to this, MOEYS and other stakeholders have established specific policies to

ensure efficient and effective use of existing resources. MOEYS has designed specific programs to deliver education to the poorest by eliminating entrance fees and establishing a scholarship scheme. Targeting of assistance has become a way for stakeholders to deliver the scarce resources to the highest priority areas to assist the most needy population.

In line with the requirements for the identification of priority areas for basic and adult education interventions, the Ministry of Education, Youths and Sports (MOEYS) and the United Nations World Food Programme (WFP) has initiated an education needs mapping exercise. The main purpose of the analysis is to geographically identify the areas where the needs are. It aims at providing a better understanding of the current education status of the Cambodian population at the lowest possible disaggregated levels, which, in this analysis, are district and commune levels.

The analysis has focused on two groups: children at primary school and lower secondary school levels and the adult population aged 15 years and above. The analysis provides geographical maps to illustrate the highest priority areas for education interventions at each level.

2. Data, Measurement and Analysis

The analysis process has been the subject of comprehensive discussion by a small group of education experts.¹ MOEYS has coordinated several meetings to discuss methodologies. Issues considered included indicators measuring education access and outcome, and the availability of data for these indicators. The objective was to select a combination of indicators that would together represent educational access and outcomes. Initially many indicators were considered for the analysis but limited availability of data disaggregated to the district or commune level has made it necessary to use a smaller list of indicators. Two sets of indicators have been prioritized and selected. They are:

¹ Key staff from various departments of MOEYS and Ministry of Planning and experts from various agencies i.e. UNICEF, WFP, UNESCO, World Bank, ADB and others.

(i) Indicators addressing priorities for basic education interventions:

- Net enrolment rate (NER) at primary level;
- NER gender parity at primary level;
- Net admission rate at Grade 1;
- NER at lower secondary school level;
- NER gender parity at lower secondary school level; and
- Number of children out of school.

(ii) Indicators addressing priorities for adult education interventions:

- Rate of adult literacy (ability to read and write simple messages);
- Education level attained (proportion who have completed primary school - i.e. have a minimum of six years of education);
- Gender discrepancy in literacy level;
- Education level attainment for the population aged 15-24; and
- Absolute number of illiterate people.

3. Basic Education

To identify priority areas for primary education interventions, the dataset of the Education Management Information System (EMIS) 2001 has been used. The data are collected annually by the MOEYS Department of Planning at school level with support from UNICEF. MOEYS distributes questionnaires to Directors of Provincial Offices of Education, Youth and Sports (PDEYS) and at the province level PDEYS provide training on data collection to Chiefs of district education offices. At the district level, in turn, Chiefs arrange training on data collection to directors of all schools within their administrative boundaries.

Thereafter the directors of schools complete the questionnaires and send them to the district level for verification and quality checking. If the information is properly collected, the questionnaire sets will be sent on to the provincial level. At PDEYS the information is thoroughly checked once more and finally forwarded to the MOEYS Department of Planning. There the data are entered, standardized, and processed, and basic statistics of the key indicators are published and disseminated. To ensure the quality of the information, a follow-up is done when problems are seen in data.

Based on this database, analyses were conducted as follows:

- i) NER at primary level: As the analysis was intended to identify priority areas for basic education interventions, NER at primary level was included. It was calculated based on the percentage of children aged 6 to 11 years old who were in primary schools out of the total number of children of the same age.² In this analysis the rate was derived at the district level, as data at this level were the most reliable available. All districts were given values ranging from 1 to 185 (the number of districts)³, where value 1 referred to district with the lowest NER.
- ii) Gender parity at primary level: To take into consideration girls' access to primary education, parity at primary level was included in the analysis. The indicator shows the differences between boy and girl NER at the district level. All districts have been given values ranging from 1 for largest gap to 185 for the smallest gap.
- iii) New intake/Net admission rate at Grade 1: To reflect the proportion of children enrolling at primary school, the net admission rate at Grade 1 was used. The indicator gives the total number of children aged 6 enrolled at Grade 1 as a

² The total population aged 6 to 11 years old was projected from the General Population Census conducted in 1998. This census was the first conducted in Cambodia since 1962 and covered almost every part of the country. It was undertaken in March 1998 by the National Institute of Statistics of the Ministry of Planning with support from United Nations Population Fund (UNFPA), United Nations Development Programme (UNDP), Swedish International Development Agency, and the World Bank

³ There are only 183 district polygons in the GIS dataset hence only 183 districts appear in the map in Annex 1.

proportion of the total number of children aged 6 within the district.⁴ All districts were given values from 1 for the lowest net admission rate to 185 for the highest.

- iv) NER at lower secondary school level: As with the corresponding primary school NER indicator, NER at lower secondary school level refers to children of lower secondary school age enrolled in lower secondary school as a percentage of all children of that age group. As only 152 out of 185 districts had lower secondary schools, the data for these districts was analyzed and the remaining districts were considered to have missing data. The 152 districts were given values ranging from 1, for district with the lowest lower secondary school NER, to 152 for the district with the highest.
- v) NER gender parity at lower secondary school level: NER gender difference at lower secondary school level was derived from the difference between boy and girl NER at that level. The districts were given values ranging from 1 for the highest gap and 152 for the district with the lowest gap.
- vi) Number of children out of school: As the above indicators represent only percentages, the actual number of children out of school was also considered in the analysis. The number of children out of school was derived from an estimate of the population at school age who were not in school. All districts were given values ranging from 1 for highest number of children out of school to 185 for the district with the lowest.

Final Index: To identify priority areas for primary education interventions, all values for each district were given the same weight and summed up. The sum values were then classified into 5 quintiles to address the districts as first, second, third, fourth and fifth priorities. The output of this analysis is presented in Annex 1.

⁴The number of children at the age of 6 was estimated based on the population projection from Census 1998.

For districts where there is no lower secondary school, sum values of indicators (i), (ii), (iii) and (vi) only were compared with other districts. Again the values given to districts were aggregated and classified into 5 groups. The first group represents the highest priority, the second group represents the second priority, and so on. These districts are shown separately on the Annex 1 map.

4. Adult Education

To identify priority areas for adult education interventions, data from the General Population Census 1998 were used. The census was mainly based on two questionnaires, Form A (house list) and Form B (household questionnaire). Form A was primarily designed to collect information about buildings predominant construction materials, whether the building was wholly or partly residential, the name and sex of heads of household and the number of persons usually living in the household. Form B, contained detailed questions about the household members, including: sex, age, marital status, mother tongue, religion, place of birth, previous residence, migration, literacy, educational and employment characteristics, and fertility.

For the purpose of this analysis, only information on literacy and education has been used. Although information on literacy and education levels was available at village level, the figures for all indicators were aggregated to the commune level (1,594 communes) to ensure consistency with other analyses. The figures were analyzed as follows:

- i) **Adult literacy rate:** Literacy was defined as the ability of a person aged 15 years and above to read and write a simple message with understanding in any language. A person who could read and write a simple message in any language was considered as being literate. A literacy test was not given during the interview. The literacy status of interviewees was recorded based on the answer given during the interview.

The analysis derived the percentage of the population aged 15 years and above who could read and write a simple message in any language at the commune level. All communes were given values ranging from 1 for the lowest literacy rate to 1,594 (as per number of communes in the analysis) for the commune with the highest rate. The commune with the value of 1 represents the worst off commune in terms of the literacy rate.

- ii) Adult education attainment: As the adult literacy rate does not reflect the actual education status of the adult population, adult education attainment was also included in this analysis. This indicator refers to the proportion of adults aged 15 and above who had at least completed primary school, or Grade 6. Again, no test was given to the interviewees during the census nor was proof required to assess the education level of the interviewees. The education level of respondents was recorded based on their answer.

All communes again were given values ranging from 1 for the lowest rate of education attainment of the population aged 15 and above to 1,594 for the commune with the highest rate.

- iii) Gender discrepancy in literacy levels: To better understand the differences between the education attainment of females and males, gender discrepancy in education level was included in the analysis. The difference in literacy rate between the male and female populations was used to represent gender discrepancy. All communes were given values ranging from 1 for the largest gap in literacy rates to 1,594 for the commune with the smallest.
- iv) Education attainment of the youth population aged 15-24: Education attainment of the population aged 15 to 24 reflects youth education attainment in Cambodia. The emphasis was on the rate of youths aged 15 to 24 who had completed primary school. All communes were given values ranging from 1 for the lowest rate to 1,594 for the commune with highest rate of youth education attainment.

v) Number of adult illiterates: The above indicators focus only on percentages. These rates are proportional only and do not represent the actual education status of the population in absolute terms. For example, in a sparsely populated area where there was a high rate of illiteracy actual numbers of illiterates may be small, making intervention less of a priority than the rate alone would suggest. However, in a densely populated area the need for intervention could be much higher in absolute terms, despite possibly having a lower rate of illiteracy. Therefore, to address this issue, the number of adult illiterates, as defined above, was included in the analysis. This indicator was introduced to better understand the extent of the problem at a disaggregated level. All communes were given values ranging from 1 for the commune with highest number of illiterate people to 1,594 for the commune with the lowest.

Final index: To identify priority areas for adult education interventions, the values of the five indicators were given equal weighting and summed up for each commune. The commune(s) with lowest total values represent the worst off in terms of educational status. The commune(s) with the highest total values are considered to be the better off communes. The output of the analysis is presented in Annex 2.

5. Results and Discussions

Once the final indexes for both basic and adult education are generated, they can be presented as maps, providing clear and accessible visual outputs. They provide valuable information for policy formulation and decision-making.

The usefulness of these maps can be enormous as they provide a clear picture of the current education status of the Cambodian population, including both children and adults. Once the most needy areas and populations are identified, assistance can be targeted more effectively and efficiently. Apart from being used to deliver assistance to the most needy members of the population, the education maps can be used in combination with the core WFP poverty maps, which have been developed as base

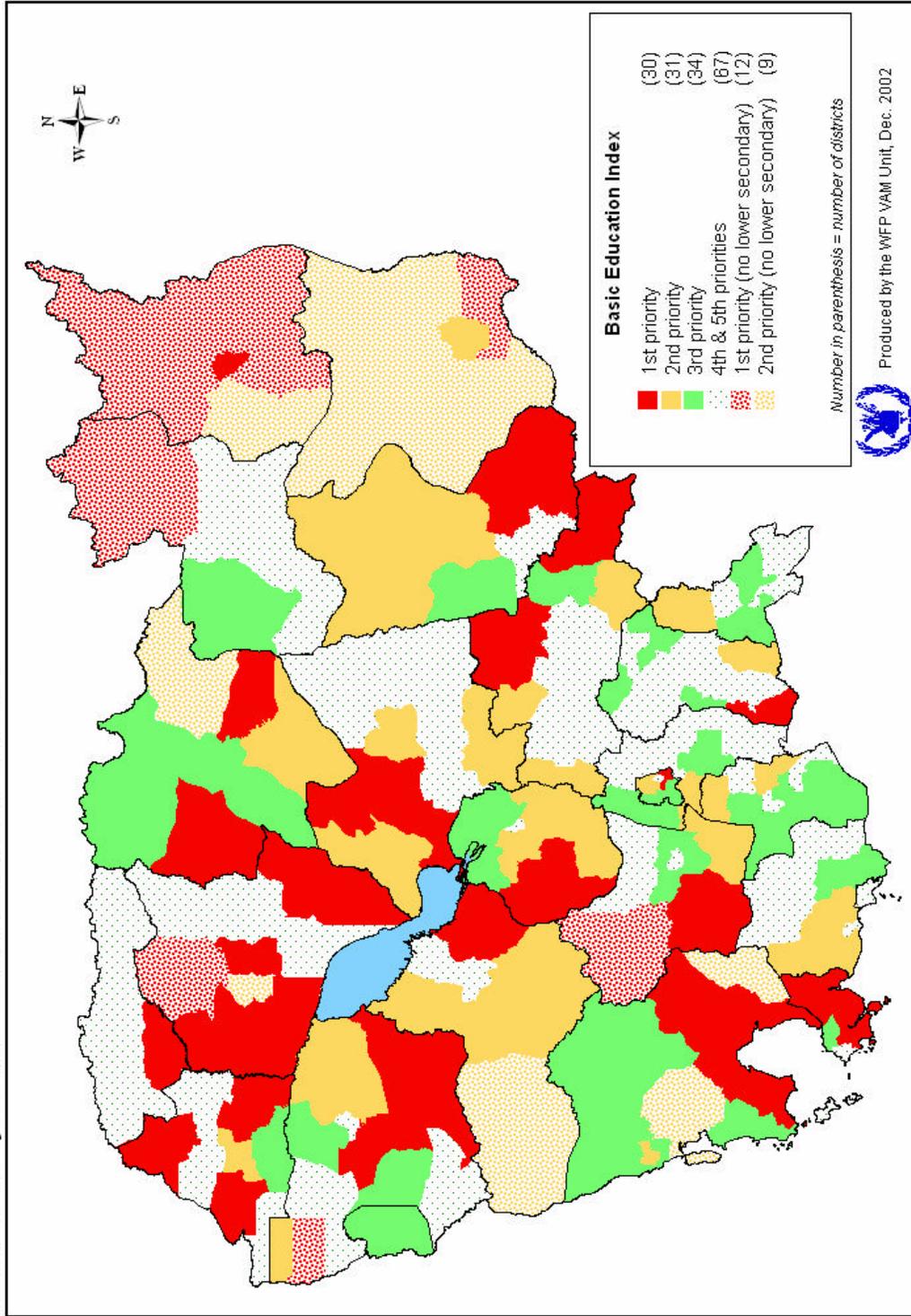
maps identifying the poorest areas in the country. The combination of the two sets of maps will allow analysis of the correlation between poverty and education outcomes at a geographically disaggregated level, and hence can be used as a key tool for targeting resources and identifying project locations.

6. Limitations of the Analysis

The following limitations to the analyses and outputs should be considered:

- **Basic education:** Since a set of only six indicators is used and all indicators are given the same weight, uses of the outputs are limited. To address specific project needs, additional analyses should be considered. For example, to target a school feeding project, only primary school level indicators should be considered; to target priority areas for school construction, further analysis conducted by MOEYS should be used.
- **Adult education:** Again, as all indicators are given the same weight the outputs might not serve specific purposes well. Users might need to consider further analysis to address their more specific needs.

Annex 1. Priority Areas for Basic Education Interventions



Annex 2. Priority Areas for Adult Education Interventions

