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**FOOD SECURITY IN CAMBODIA
A PRELIMINARY ASSESSMENT**

by Vincent Tickner

UNRISD Discussion Papers are preliminary documents circulated in a limited number of copies to stimulate discussion and critical comment.

October 1996

◆ Preface

Since 1993, UNRISD work in Cambodia has focused on the difficulties of establishing peace and rebuilding a society that has experienced many years of war, a sudden shift from international isolation to aid dependency, as well as profound economic, political and cultural change. The Institute's earlier work examined the impact of the large international peace-keeping operation on the Cambodian economy and society. Since 1995, research has continued under a new programme on **Vulnerability and Coping Strategies in Cambodia**, which focuses on issues of food security, psycho-social vulnerability and the impact of international assistance on the development process.

This paper by Vincent Tickner provides a preliminary assessment of the food security situation in Cambodia. It is based on research carried out in Cambodia between March and October 1995, consisting mainly of a review of secondary sources and interviews with government and agency officials.

The paper provides useful guidance to both researchers and agency personnel dealing with food security issues. It identifies the nature of contemporary food insecurity in Cambodia, arguing that "access", rather than "availability", is the key problem, and reveals the way in which a diverse range of agro-ecological, institutional, macro-economic, market, security and social-structural conditions affect food security at national and household levels. The author also assesses what different agencies are — or are not — doing to address food insecurity, asserting that although certain government and international agencies identify food security as a priority development issue, they have not put in place policies, programmes or projects that address directly or systematically food security problems. Neither, he argues, have they considered the food security implications of major policy approaches promoting, for example, trade liberalization, sectoral rehabilitation, state restructuring and private sector development. Nor is there much co-ordination of interventions in this field or integration of agency efforts in a comprehensive food policy or strategy.

The dramatic changes in ideology and régime, as well as the current power-sharing arrangements and the influx of international agencies, have resulted in a diverse, and sometimes contradictory, array of policy and programme approaches towards food security. While some favour rapid liberalization, others promote state-led interventions or "targeting" of vulnerable groups. Yet the poor knowledge base concerning the functioning of food markets, livelihood systems and local vulnerability may render such approaches ineffective in dealing with food insecurity.

Many agencies fail to consider the range of strategies and responses that most Cambodians have developed to help them overcome their food insecurities. The paper recommends that external agencies contemplating food support to food insecure populations should consider how those groups themselves respond to food insecurity and with what success or constraints. In this way agency interventions might build on what food insecure households are already doing to overcome their food insecurity. Employment generating and food supply schemes, particularly during lean periods in rural areas, have an important role to play. Some consideration

has been given to employment generation in Cambodia, but this has rarely been preceded by an analysis of the livelihood circumstances of particular groups of households, the constraints they experience in expanding certain types of employment and the nature of rural labour markets.

While in years of normal rainfall Cambodia is only marginally deficient in terms of overall food availability, national food production is periodically threatened by extreme climatic conditions and military conflict. In view of these conditions, the author stresses the need for more permanent preparedness to deal with such situations than is currently the case.

Vincent Tickner is a consultant specializing in food security and agricultural marketing. He has worked in several Asian and African countries, and he lived in Cambodia during much of 1995. UNRISD's work on food security in Cambodia is being undertaken in collaboration with the Cambodia Development Resource Institute (CDRI) and is co-ordinated by K.P. Kannan and K.A.S. Murshid. The UNRISD research programme **Vulnerability and Coping Strategies in Cambodia** is co-ordinated by Peter Utting.

October 1996

Dharam Ghai
Director

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This paper emanates primarily from work undertaken by the author between March and October 1995 as Project Co-ordinator of the Food Security component of the UNRISD project on **Vulnerability and Coping Strategies in Cambodia**.^{*} Most of the information and material used data from before November 1995. A number of people from different organizations contributed their ideas and knowledge, but particular thanks are extended to Ros Kosal and Tia Savora, the two Research Assistants at the Cambodia Development Resource Institute (CDRI), who contributed to the ongoing discussion of different aspects of food security in Cambodia, collecting and collating data, and commenting on many of the ideas presented in this paper. The Information Assistants, Be Kalyanna and Eng Po, of CDRI's Documentation and Information Resource Centre (DIRC), also contributed by enthusiastically and promptly supplying documents that aided the research. The comments of Peter Utting of UNRISD in Geneva have also been much appreciated for their constructive nature. All ideas and information in this paper are, however, the responsibility of the author.

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◆ Contents

◆ Abbreviations and Acronyms	vi
◆ Administrative Map of Cambodia	ix
<hr/>	
1. INTRODUCTION	1
<hr/>	
2. FOOD SECURITY IN CAMBODIA	2
<hr/>	
◆ 2.1 Historical Background	2
<i>The colonial and “Cold War” eras</i>	2
<i>UNTAC, elections and power-sharing</i>	3
<i>Social structure</i>	4
<i>Foreign aid</i>	6
◆ 2.2 The General State of Food Security	7
<i>The local diet</i>	7
<i>Food production and consumption</i>	8
<i>Food markets and food trade</i>	10
<i>Nutritional status of the population</i>	11
<i>Household food security</i>	12
<i>Income generation and migration</i>	13
<i>Environmental considerations</i>	14
<i>Psycho-social problems</i>	14
<hr/>	
3. CURRENT FACTORS LEADING TO FOOD INSECURITY	15
<hr/>	
◆ 3.1 Agro-Ecological Conditions	15
◆ 3.2 Security	18
◆ 3.3 Land Tenure	19
◆ 3.4 Means of Food Production	21
◆ 3.5 Non-Agricultural Employment	24
◆ 3.6 Weak Asset Bases	25
◆ 3.7 Borrowing and Credit	26
◆ 3.8 Market Sources of Food	28
◆ 3.9 Nutrition, Food Safety and Intra-Household Distribution of Food	32
◆ 3.10 Social Structures and Social Support	33
<hr/>	
4. FOOD POLICY AND PROGRAMMES	36
<hr/>	

◆ 4.1 Government Policy and Programmes	37
◆ 4.2 International Donors and Large International Organizations	41
◆ 4.3 Non-Governmental Organizations (NGOs)	43

5. PRIORITIES FOR AND TENSIONS OVER FOOD SECURITY IN CAMBODIA	46
--	-----------

◆ 5.1 Food Availability	47
◆ 5.2 Food Accessibility	49
<i>Temporary or seasonal food insecurity</i>	49
<i>Chronic food insecurity</i>	50
◆ 5.3 Individual Food and Nutritional Needs	54
◆ 5.4 Macro-Economic, Socio-Economic and Environmental Impacts on Food Security	54
◆ 5.5 Organizational Responses to Food Insecurity	57
<i>Governmental organization and food security</i>	58
<i>Large international aid and development agencies and food security</i>	59
<i>Non-governmental organizations (NGOs) and food security</i>	60

6. CONCLUSIONS	61
-----------------------	-----------

7. APPENDICES	63
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◆ 7.1 Appendix 1: Relevant Government Policies and Programmes	63
◆ 7.2 Appendix 2: Programmes and Approaches of Selected International Agencies	67
◆ 7.3 Appendix 3: Figure and Tables	75
◆ Bibliography	79

◆ Abbreviations and Acronyms

ACLEDA	Association of Cambodian Local Economic Development Agencies
ACCT	Agence de Cooperation Culturelle et Technique
ACR	Australian Catholic Relief
ADB	Asian Development Bank
ADOR	Agricultural Development Options Review
AGM	Annual General Meeting
AICF	Action internationale contre la faim
AIDAB	Australian International Development Assistance Bureau
AusAID	Australian International Development Agency (ex-AIDAB)
BLDP	Buddhist Liberal Democratic Party
CARD	Committee for Agriculture and Rural Development
CARE	Care International
CARERE	Cambodia Resettlement and Reintegration Programme (UNDP)
CBSA	Community Based Social Action
CCC	Cooperation Committee for Cambodia
CCDP	Cambodia-Canada Development Program
CCRD	Credit Committee for Rural Development
CDC	Cambodian Development Council
CDCs	Community Development Councils
CDRI	Cambodia Development Resource Institute
CIAP	Cambodia-IRRI-Australia Project
CICP	Cambodian Institute for Cooperation and Peace
CIRP	Cambodia-IRRI-Rice Project
CMAC	Cambodian Mine Action Center
CNHE	National Centre for Hygiene and Epidemiology
COCMA	Compagnie Centrale des Matériels Agricoles (under MAFF)
CPI	Consumer Price Index
CPP	Cambodia People's Party
CRC	Cambodian Red Cross
CRDB	Cambodian Rehabilitation and Development Board
CWS	Church World Service
DK	Democratic Kampuchea
DPS	Department of Planning and Statistics (MAFF)
ECU	European currency unit
EIA	Environmental Impact Assessment
EIU	Economist Intelligence Unit
EU	European Union (former European Community)
FAO	Food and Agriculture Organization of the United Nations
FFPP	Family Food Production Programme (UNICEF)
FSIS	Food Security Information System
FSU	Food Security Unit
FUNCINPEC	Front Uni National pour un Cambodge Independant, Neutre, Pacifique et Cooperatif

GIEWS	Global Information and Early Warning System (FAO)
GRET	Groupe de Recherche et d'Echanges Technologiques
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (Germany)
HEKS	Hilfswerk der Evangelischen Kirchen der Schweiz (Switzerland)
HKI	Helen Keller International
IBRD	International Bank for Reconstruction and Development (World Bank)
ICORC	International Committee for the Rehabilitation of Cambodia
IDP	Internally displaced person
IDRC	International Development Research Center (Canada)
IFPRI	International Food Policy Research Institute
ILO	International Labour Organisation
IMF	International Monetary Fund
IOs	International organizations
IPM	Integrated pest management
IRRI	International Rice Research Institute
ITSH	Internal transport, storage and handling
IWDA	International Women's Development Agency
JICA	Japan International Cooperation Agency
KAMPAGREXPORT	Kampuchea Agricultural Marketing and Export
KAMPRIMEX	Kampuchea Rice and Maize Marketing
KoC	Kingdom of Cambodia
LWF/WS	Lutheran World Federation/ World Service
LWS	Lutheran World Service
MAFF	Ministry of Agriculture, Forestry and Fisheries
MCC	Mennonite Central Committee
MoC	Ministry of Commerce
MoE	Ministry of the Environment
MoEYS	Ministry of Education, Youth and Sport
MoH	Ministry of Health
MIME	Ministry of Industry, Mines and Energy
MoP	Ministry of Planning
MPWT	Ministry of Public Works and Transport
MRD	Ministry of Rural Development
MSALVA	Ministry of Social Affairs, Labor, and Veterans Affairs
MSF	Medecins Sans Frontières
NFNC	National Food and Nutrition Committee
NGO	Non-governmental organization
NIPH	National Institute for Public Health
NIS	National Institute of Statistics
NNPA	National Nutrition Plan of Action
NTS	National Training Secretariat
OSB	Overseas Service Bureau
OXFAM	Oxford Committee for Famine Relief
PADEK	Partnership for Development in Kampuchea
PDK	Party of Democratic Kampuchea ("Khmer Rouge")

PEM	Protein Energy Malnutrition
PERC	European Rehabilitation Programme in Cambodia (EU)
PMES	Project Monitoring and Evaluation System
PRA	Participatory Rural Appraisal
PRDC	Provincial Rural Development Committee
PRK	People's Republic of Kampuchea
RINE	Rehydration, Immunisation, Nutrition and Education
RRA	Rapid Rural Appraisal
SDA	Social Dimensions of Adjustment (World Bank)
Sida	Swedish International Development Cooperation Agency
SOC	State of Cambodia
SSKK	Samakrum Sankrus Kaksekor Kampuchea (Farmers' Association)
SSWA	State Secretariat for Women's Affairs
TVET	Technical, Vocational Education and Training
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Family and Population Agency
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNOPS	United Nations Office for Project Services
UNRISD	United Nations Research Institute for Social Development
UNTAC	United Nations Transitional Authority in Cambodia
USAID	United States Agency for International Development
USD	United States dollar
VDC	Village Development Committee
WID	Women in Development
WFP	World Food Programme
WFP-Cambodia	World Food Programme in Cambodia
WHO	World Health Organization
WVI	World Vision International

◆ **Administrative Map of Cambodia**

1. INTRODUCTION

Food security is a comparatively recent term which refers to the sustained supply of appropriate food to everyone in a society to enable their healthy development, without serious disruption to the environment, their livelihoods and their culture. Complete food security is rarely achieved. It is an ideal to be striven for. It needs to be considered at different levels of society: globally, regionally, nationally, locally, as well as at the level of the household and the individual. It also needs to be considered in relation to the types of risks that generate food insecurity and whether they are likely to be **temporary, seasonal or chronic**. Assessment of food security needs and external agency interventions should consider how individuals, households and local support systems assess their particular food security risks and respond to them.

Going beyond earlier definitions of food security in terms of food availability and food accessibility, this broader definition involves a number of aspects:

- a) The sustained availability of adequate food and a balanced diet to meet the nutritional needs of all the population;
- b) The individual means to acquire adequate, appropriate food for healthy living on a sustained basis, and the ability to do this without longer-term detriment to individual livelihoods or other basic needs;
- c) The sufficient education of people as to the nutritional benefit of different available foods and the comparative costs of facilitating alternative appropriate consumption;
- d) The achievement of the above-mentioned points without serious detriment to the environment, which would prejudice longer-term food security of the society or the ways in which the people in it live and gain their livelihoods;
- e) The achievement of all the above-mentioned points without causing undue psycho-social stress to the individual or serious weakening of the cohesiveness of the existing social structure, and without severely transgressing the cultural attitudes of the society concerned.

Most national governments are concerned not only with the food security of individuals or households but also with national food security, that is, the extent to which the national food system can function without excessive reliance on external food aid/imports and/or imports of food system inputs. Such dependency could lead to external political and economic pressures that could weaken national independence.

This Discussion Paper provides a preliminary assessment of how such food security aims are currently being achieved or thwarted in Cambodia. The paper is intended as an introduction to the subject only, and a basis for discussion and ongoing research. Drawing primarily on information from secondary sources and interviews with selected government and agency officials, it attempts to piece together what is known about food security issues and to identify major gaps in knowledge. The paper reviews the current state of food security in Cambodia in the context of the country's recent development; examines some of the main factors influencing food security; outlines recent agency responses to weaknesses in food security; and identifies some of the major pressures, tensions and priorities regarding Cambodian food security.

2. FOOD SECURITY IN CAMBODIA

◆ 2.1 Historical Background

Consideration of current food security circumstances in Cambodia needs to be put into the context of the country's socio-economic and political development. In terms of economic development the country has been, and still is, underdeveloped in comparison with many Asian countries. The manufacturing, mineral extractive and infrastructural base in Cambodia has always been slight. It began to develop in the early 1960s (see Nepote and de Vienne, 1993), but this economic development was cut short by political developments. The economy has always been primarily based on agricultural production. Although agricultural production has, in times past, expanded on the basis of irrigation and drainage systems, it has only marginally been affected by the technological advances in agriculture that other countries have experienced during the last 25 years. The population (about 10.2 to 10.4 million in mid-1995) is limited in relation to cultivated land area (estimated at 3.8 to 4.0 million hectares in 1992-1993). About two thirds of this area is used for rice cultivation. The production system has been predominantly one of smallholders, without developed agricultural extension, credit, input and output services. This has mainly resulted in extensive rather than intensive farming systems. Nevertheless, until the early 1970s, the agricultural sector managed to make available sufficient food to cater for the basic needs of much of the population, and also to provide food for export during the 1960s (see Delvert, 1961).

Until the nineteenth century, the structure of the society was predominantly one of household agricultural producers, and a monarchy, with its agents for administration, taxation and control. This political-economic structure has been reinforced by the social and religious philosophies and structure of Theravada Buddhism. There was (and is) also a small Islamic community ("Chams"). During the last three centuries the country's development has been overshadowed by the power of its two large neighbours, Thailand and Viet Nam. It was the Thai government that set up the present Cambodian royal dynasty in the eighteenth century in their rivalry with Nguyen Viet Nam. Both neighbouring countries have continued to be concerned about who controls Cambodia, and have had a considerable impact on Cambodian development until the present. Both have intervened in support of particular Cambodian political groupings.

The colonial and "Cold War" eras

The French intervened as well in 1863, making Cambodia a Protectorate, and then in 1887 amalgamating it within their Indo-Chinese Union. The French colonial administration did not change Cambodian socio-political structures significantly. It superimposed its administrative and trading structures on the existing structures. The prime colonial concerns were to retain political control, to extract wealth from the country by trade, and to be able to tax the local

population to pay for its administration and certain public services. Unlike some other French colonies (including Viet Nam), the reorganization of production to service the metropole was limited in Cambodia, except for rubber. Until the 1970s, most local trading functions were undertaken by the Chinese Khmer community. Vietnamese people dominated much inland commercial fishing and some artisanal trades. Organized political activity under the French, and also in the first years after Independence in 1954, was discouraged or repressed, leading to a number of political groupings going underground or fleeing to seek support from external organizations. As a result, political culture has remained weak.

In the late 1960s, Cambodia was drawn into the “Cold War”, Sino-Soviet, and Sino-Vietnamese conflicts with disastrous consequences for the country in terms of human life and social and economic development. It was largely these conflicts, continued during the 1980s by the forces opposed to the Soviet-Vietnamese alliance, that caused such hardship in Cambodia right up until the signing of the Paris Peace Accords in 1991. The social disruption, economic dismantling and decay, and human loss of life caused by the Democratic Kampuchea (DK) (“Khmer Rouge”) Government (1975-1979) were substantial, and the impact of this period on current life is still being strongly felt. The forced migration of people to and within rural areas, and a focus on food production by the resettled population, was in theory aimed at improving food security. Initially rice production increased, but the elimination of the limited number of people with technical skills, poorly undertaken irrigation schemes and continued extraction of food for exports led to a sharp reduction in food supply.

The difficulties faced by subsequent governments (People’s Republic of Kampuchea (PRK) (1979-1989) and State of Cambodia (SOC) (1989-1993)) in recovering from that period have been considerable. Economic sanctions were imposed on Cambodia from 1982 to 1991 (except from the Soviet Union, which provided 80 per cent of the aid during this period, Viet Nam and a few other countries and organizations), and war continued at considerable human and financial cost. The development style during this period was very much a government-led, government-controlled approach, with limited scope for private sector actors or social structures run or developed by organizations other than the state. In terms of food security, however, a basic food supply to urban areas was largely ensured through a procurement and rationing system. Land redistribution and collective structures enabled many rural households to supply their basic food needs, particularly vulnerable ones such as widow-headed households with many dependants, of which there were many during this period. Towards the end of the 1980s, despite all these difficulties, Cambodia appeared to be approaching national food self-sufficiency again.

UNTAC, elections and power-sharing

During 1992 and 1993, when the United Nations Transitional Authority (UNTAC) intervened to organize elections and repatriate over a third of a million refugees, the Cambodian governmental structures were deprived of much of their power to operate, and monetary and ongoing political instability had negative effects on the economy. The abrupt weakening of government powers and state administrative structures, linked with a disjointed involvement of the private sector that was dominated by opportunistic get-rich-quick

operators, left many people economically vulnerable and without even the minimal social support structures that had previously existed. The economic disruption was partially counterbalanced by a substantial influx of foreign exchange linked to the UNTAC operation (which nevertheless contributed to a distorted pattern of economic development centred on an urban boom servicing the needs of the many UN staff) and foreign aid (primarily relief aid directed more towards returnees in a few provinces). The rural population was relatively neglected, and the protracted political tensions and ongoing military conflict resulted in a “wait and see” attitude by foreign donors that delayed development assistance (see Utting, 1994).

As a result of the elections, FUNCINPEC obtained 58 seats in the National Assembly, the Cambodia People’s Party (CPP) — which had constituted the earlier PRK and SOC governments — 51, and the Buddhist Liberal Democratic Party (BLDP) 10, out of a total of 120 seats. Because these results gave only a narrow victory to FUNCINPEC, a power-sharing form of government was initially chosen. Although power-sharing operates at the level of Ministers and higher government officials, most officials are the ones put in place under the earlier two governments. Nevertheless, the dominant political culture in Cambodia at present is still an inherently unstable one. The rule of law is weak. The new parliamentary structures are rudimentary. Some of the political parties are loose coalitions with little discipline and dominated by small groupings of individuals, whereas others have a party discipline but are more ossified in their attitudes. Local representative democracy is hardly established. The organization of interest groups is incipient. The public media are often partial and either commercially or politically dominated. Power is often crudely expressed and sometimes backed by violence. The general climate of insecurity and instability of recent years has contributed to the continuance and reinforcement of “patronage” systems as a major form for seeking political objectives, rather than clearer interest group articulation. These “patronage” systems, however, are also unstable.

Since the creation of the newly-elected power-sharing government in September 1993, peace and economic stability have only slowly been returning to the country. The Khmer Rouge are still able (partly because of support from certain forces in Thailand) to create insecurity in specific regions of the country. Brigands and violent criminals also operate in many areas. Ongoing insecurity and violence have greatly complicated the task of reactivating food production and distribution in some areas. Many government structures have not recovered from their emasculation during the UNTAC period, and continued financing difficulties of line Ministries have strongly weakened their capacity (except where they have strong foreign aid support) to influence national development.

Social structure

Much of the rural population is still comparatively poor, although a number of well-established rural families with slightly more land, and often with urban or external connections, are prospering. Approximately 85 per cent of the population is rural. About half of the population is under 14 years old, and there are significantly more adult women than men. Traditional social support systems have been severely weakened, and are only very slowly being re-established. In urban areas greater employment opportunities have enabled

some people to improve their circumstances in recent years, but there are still many poorer people, particularly amongst recent migrants.

Women in Cambodia have always played strong economic and social roles in the household, although they often have limited formal education. Their importance as income-generators and household sustainers has increased with the death or loss to military activity of many men since the 1970s. In rural areas women play a major role in food production, food processing, food preparation and food distribution within the household. Accordingly, their attitudes to these activities and their capacities to operate in them can significantly influence household food security. In a number of ways, such as access to cultivable land, provisioning in agricultural inputs, credit-worthiness, vulnerability to robbery, and education they may be severely disadvantaged (SSWA, 1995). They also play a significant role in other income-generating activities for the household, and in more recent years have also appeared to migrate more in search of employment and income, although their responsibilities for the care of children and disadvantaged members of the household often inhibit their mobility. Women are often the major members of the household to engage in borrowing for the short-term needs of the household. Their attitudes to and knowledge of nutritional and hygiene questions can have a significant impact on the nutritional well-being of members of their household. Because of all these aspects the role of women in relation to household food security in Cambodia merits specific attention.

The one major analysis of incomes that has been undertaken recently over the period October-December 1993 (NIS, 1994) unfortunately had a 40 per cent disparity between household incomes and expenditure, suggesting unreliability in the income data. Nevertheless, it reflected high differences in income. The top decile of households surveyed had 53 per cent of the total income, with a mean monthly household income of 766,632 riels (US\$ 312), when the mean monthly household income of the rest of the households was 74,486 riels (US\$ 30). The mean monthly expenditure of households in Phnom Penh was 882,465 riels (US\$ 359), of which 397,754 riels (US\$ 162) (45 per cent) was spent on food. In rural areas mean monthly expenditure was 240,298 riels (US\$ 98), of which 64 per cent was spent on food (i.e., 153,800 riels (or US\$ 63) (see table 1). Unfortunately there are no data readily available on expenditure patterns by income group, although they are apparently available in unpublished form by expenditure deciles (NIS, 1994).

Recently a small group of very rich people has emerged who have gained their wealth largely from business deals, large-scale corruption or activities overseas before 1991. A group of individuals gaining substantial economic benefit from their association with foreign interests is in the ascendant. Income does not always reflect wealth, however, and a number of households may be holding significant assets (e.g. buildings, land or equipment), but have limited income. Some more affluent families or family members that went overseas have returned and established themselves well. Conversely, a fairly high percentage of returnees from Thailand are comparatively poor. Bureaucrats have suffered comparatively in income standards in the last few years as real incomes have not matched the inflation of 1993, but some have additional sources of income, such as renting properties, taxi-driving, teaching, corruption, or their wives' trading activities. Some medical civil servants have private medical practices. A clear picture on real income and wealth distribution, and how they have developed recently, is hard to compile.

The policies of the new government have been strongly directed towards re-establishing the rule of law (which is slow in coming), monetary stability (which has been achieved to a considerable extent, although the value of the riel was gradually weakening in late 1995), domestic and foreign trade liberalization (well advanced but with some forces slowing it down), the encouragement of direct foreign investment (estimated at US\$ 2.5 billion over the period August 1994 to May 1995, compared with US\$ 621 million over the 1991-1993 period — CDC/CRDB 1995), infrastructural rehabilitation (advancing with arterial roads and ports, power supplies, and communications), rural development (only slowly developing), and human resource development and governmental restructuring (both taking considerable time). Many of the resources deployed have gone to urban areas, however. Imports, private trade and urban construction and service economies have expanded, but in a disparate fashion.

Foreign aid

Much of government financing has come from foreign aid and sudden windfall returns from taxes on considerable logging exports in 1994. It is anticipated that fiscal revenue from timber royalties in 1996 will be much reduced, with much of this revenue coming from auctions of stock-piled timber. In 1994, 60 per cent of expenditure was still destined to defence, although certain sources indicated that this was reduced to 24 per cent in the revised 1995 budget and 27.5 per cent of the 1996 budget (**Phnom Penh Post**, Vol. 4, No. 26:13). Ministry of Defence control over logging in certain areas has enabled some of the military to benefit from this activity. Foreign aid support seems buoyant but other sources of fiscal revenue are more unstable, while the tax base is fragile. The initial budget for 1995 envisaged a total expenditure of 1,053 billion riel (US\$ 421.2 million), of which 581 billion riel would derive from fiscal revenue, with the deficit being largely met by 466 billion riel from foreign financing. In September 1995 the budget for 1995 was increased to 1,283 billion riel (US\$ 513.2 million) because of additional income from taxes, duties and an IMF loan of 308.5 billion riel. In 1996, it is anticipated that 460.3 billion riel (US\$ 184.1) will come from foreign financing out of a greater budget of 1,452.3 billion riel (US\$ 580.9 million) (**Phnom Penh Post**, Vol. 4, No. 26:13). Almost all finance for development programmes and projects comes from foreign sources (World Bank, 1995).

Substantial foreign aid funds have been sought and promised through the International Committee for the Reconstruction of Cambodia (ICORC) and from other sources. Simultaneously, foreign private investment in the country has been encouraged. Considerable efforts are being made through the Cambodia Development Council (CDC) to co-ordinate these programmes, often with difficulty. Foreign aid disbursements have not approached pledges. Disbursements were 59 per cent of pledges over the 1992-95 period. Disbursements of some major pledging donors (those pledging US\$ 40 million or more) over this period were weak. The World Bank and Asian Development Bank (ADB) both disbursed less than a third of pledges (McAndrew, 1996; CDC/CRDB, 1995). Bilateral sources account for 72 per cent of disbursements over this period and multilateral aid for 28 per cent. NGOs account directly for about 3 per cent of disbursements over this period, although they have also acted as executing agencies for some bilateral aid, and the value of NGO aid flows in 1995 was estimated at about US\$ 77 million. Total disbursements in

1994 and anticipated ones for 1995 were estimated at a total of US\$ 784 million (CDC/CRDB, 1995).

One assessment has indicated that over the 1989-1994 period, 20 per cent of total aid allocations went towards supporting agriculture and food self-sufficiency (Bernander et al., 1995:44). Over the period 1988-1992, 177,000 tons of food aid were provided, of which 159,000 tons were comprised of cereals (mainly rice). During the UNTAC period (1992-1993), 205,000 tons of food aid came into Cambodia. This then dropped substantially to 40,000 tons in 1994, but with the harvest failure of 1994/95, food aid distribution for 1995 was expected to reach 95,000 tons. Data on official food imports for 1994 and 1995 are not available, while unofficial imports are thought to be substantial. In 1991 and 1992, official rice imports amounted to 15,000 and 16,600 tons, respectively.

Before 1992 there were only a limited number of international organizations and non-governmental organizations (NGOs) in Cambodia, operating under restricted circumstances because of the war. Since 1992 a large number of foreign aid organizations (bilateral, multilateral and non-governmental) have entered the country, and often have more resources than the government to implement projects. Initially, many of these were involved in relief operations, but in 1994 and 1995 they began more rehabilitation and development programmes. Aid disbursements for “technical assistance” and “project investment” increased during these years to approximately 27 per cent of total disbursements (McAndrew, 1996). “Budgetary aid” and “balance of payments” support peaked in 1994. They decreased in 1995, but debt rescheduling in 1995 was expected to be substantial (World Bank, 1995). Relief aid (including food aid), which received the strongest emphasis during the UNTAC period, has since decreased to likely disbursements of about US\$ 53 million in both 1994 and 1995, compared with US\$ 172 million in 1992 and US\$ 93 million in 1993 (CDC/CRDB, 1995).

◆ 2.2 The General State of Food Security

Cambodia is a predominantly agricultural country with a considerable agricultural potential. In normal years, the agro-ecological conditions and the agricultural, fishing, hunting, livestock raising, gathering and traditional food production and processing skills of the people have usually secured them a fairly adequate and varied food supply.

The local diet

The diet is strongly based on rice (supplying about 75 per cent of calories) and fish (from inland water courses and paddy fields, as well as some marine supplies, providing the main protein supply) as the staple foods. These are supplemented by maize, root crops (cassava and sweet potatoes), mung beans and groundnuts. A wide variety of fruits and vegetables are produced in Cambodia. Consumption of vegetables by the rural population appears limited, and they appear to prefer to sell surpluses for income to supplement their rice needs. Viet Nam and Thailand also currently supply substantial quantities of fruit and vegetables to the Cambodian market, particularly to urban areas.

Sugar-palms and sugar-cane are also grown, as are coconuts, pepper, cashew-nuts, coffee and oil palms.

Cattle and buffalo are mainly raised for their draught power or as capital savings, although some beef is consumed. Pigs, particularly, are raised for meat, and are an increasingly important source of protein. Chickens and ducks are raised to supply eggs as well as meat. In some parts of the country (particularly forested areas), hunting and trapping of animals are additional sources of food, despite attempted restrictions on hunting. The distribution of landmines in a number of forested areas has limited this activity. Forests, fields and water courses in Cambodia supply a plethora of plants, berries, wild fruits, tubers and mushrooms, as well as aquatic animals (frogs, crabs, snails and shrimps). These have formed an integral part of the diet of many rural Cambodians. Poorer households in particular, with little alternative food production capacity, turn to such sources not only for additional food for themselves, but also for sale to obtain income.

There are a number of ways in which rice is processed (e.g. noodles, rice cakes), as well as fish (e.g. *prahoc*, dried and smoked fish, fish sauces and pastes). Many of these employ traditional local processing techniques. Fish processing provides many with a continuous source of protein throughout the year. Some pickling of fruit and vegetables occurs, but fruit and vegetable processing is little developed. There is almost no food canning, and very limited frozen food production in the country. There is no oilseed industry. A number of processed foods are imported, even into rural areas. Some bread is consumed in urban areas. Almost all dairy products are imported or reconstituted in the country.

The mix of food products available in Cambodia should normally be adequate for a balanced diet, but productive capacity or purchasing power of many households is limited, and in these circumstances the diet becomes more restricted to rice and fish.

Food production and consumption

In the 1960s Cambodia was a significant food exporting country, particularly of rice. In the 1970s there were considerable shortfalls in food availability for the Cambodian population. Since 1981 national food availability has been gradually increasing, and in the late 1980s appears to have approached self-sufficiency. This is not to say that every year the food supply has been adequate. Periodically, severe flooding and/or droughts have led to shortfalls in national and local food availability. One crucial aspect of Cambodian national food security since 1993 has been the two poor harvests of 1993/94 and 1994/95, and with many Cambodians returning from abroad, the national food production deficits have been estimated at the equivalent of between 200,000 and 300,000 tons of rice. This constitutes about 12.5-19 per cent of estimated annual requirements or 1.5-2.3 months' consumption. The 1995/96 main rice harvest was the best of the decade to date, however, resulting in an estimated national surplus of milled rice of almost 140,000 tons (FAO/WFP, 1996). Thus currently, in a normal year the country can be almost self-sufficient in food supplies, but in some years agro-ecological difficulties can cause significant shortfalls in food availability of as much as one third.

Annual national paddy production usually ranges between about 2.2 and 2.7 million tons, although in the 1995/96 season it has been estimated at 3.3 million tons. Annual national production of maize normally ranges between about 50,000 and 80,000 tons, while that of cassava appears to range between about 45,000 tons and 150,000 tons, with occasional peaks above that. Annual national sweet potato production has been estimated at between 25,000 and 80,000 tons.

Some regions have considerably greater agricultural potential than others, and some habitually are food surplus regions. Others can sometimes only facilitate a marginally adequate, if not deficit, food production. According to Ministry of Agriculture, Forestry and Fisheries (MAFF) data, the main deficit/marginal provinces (besides the urban areas) in terms of food shortfalls per person are: Koh Kong, Kompong Speu, Kompong Cham, Ratanakiri, Pursat, Monduliri and Kratie (see table 2). A number of provinces move in and out of food balance as a result of changing agro-ecological conditions. The south-eastern and central plains provinces with greater population densities fall into this category. About 70 per cent of the population is concentrated in the south-eastern and central plains (see table 2). Substantial variations in yields between districts and within districts in the same province in the same year and over time have also been noted. One study observed that in 1994/95 "the situation varied dramatically within some villages depending on the allocation of land and the time when the rice was planted" (WFP-Cambodia, undated).

It should be pointed out that the analysis of local food availability (presented in table 2), which is based on MAFF data and methodology, suffers from a number of limitations. Besides starting with weak population and production data and ignoring trade, the paddy quantities are converted to rice equivalents using a standard conversion coefficient, and another mathematical one is applied to cover anticipated reductions from losses, seed retentions and animal feed retentions; this yields a very rough figure. Maize and sweet potato production estimates are converted to paddy equivalents on the basis of 2 kg of maize = 1 kg of paddy = 3 kgs of sweet potatoes; for beans and other tubers the conversion coefficients are not known. Other food products are not considered. These supply figures are converted into a rice equivalent figure for local availability, and then compared with a local demand calculated on the basis of the population multiplied by a mean consumption of 162 kg of rice equivalent per person (regardless of age) per year. In February 1996, a FAO/WFP team reviewed with the government their 1995 assessment, which used different criteria from those used before; complete agreement on these coefficients was not easily arrived at, and the coefficients agreed upon leave a lot to be desired. FAO and WFP are obviously still very far from satisfied with these data and coefficients, as they are continuing and strengthening their support to agricultural statistics in MAFF.

The yields that are normally achieved nationally are far below what can be achieved with modern agricultural technology and approaches. According to MAFF data, between 1985/86 and 1994/95 paddy yields were about 1.33 tons/hectare, the highest annual mean being 1.43 tons/hectare, and the lowest being 1.19 tons/hectare (the latter representing a 10 per cent drop from the period mean). In the 1995/96 rice harvest the mean yield was put at 1.86 tons/hectare (FAO/WFP, 1996). Such rice yield data may contain substantial errors as the Rice Crop Pilot Survey in 1995 showed. For the province of

Kandal the government estimate was put at 2.15 tons/hectare while the FAO/WFP rice assessment survey was put at 1.79 tons/hectare, and the Pilot Survey estimates also varied — 1.97 tons/hectare for farmers' forecast and 2.42 tons/hectare from crop cutting (MAFF/DPS/FAO, 1996:27).

Seasonal variations in food consumption in rural areas appear to follow fairly closely seasonal variations in local food supply (see figure 1), particularly among poorer families or in more remote areas where the community is less integrated into wider markets. Some of the most food-insecure farming households often only have sufficient rice stocks to last them three to six months of the year (Alto-Senga, 1993). Accordingly, the more food-insecure households may start being short of rice from March onwards, till the next harvest in December. Many rural households are short of food from May to August, but September to November are usually the worst months. Inland fish is more abundant between November and early February, but processing of fish by traditional methods does permit some continued fish protein provision throughout the year. Livestock products, chickens, ducks and eggs can provide regular food supplies throughout the year. Different fruits are harvested at different times of the year in different parts of the country. The main gaps in vegetable supply are in April/May, and again in September/October (Marom and Hean, 1994). Accordingly, there are two periods in the year when rural food supply from local production can be weak, namely June/early July (the time of transplanting and weeding) and late September/October (just before the main harvest) (see figure 1).

Detailed information on seasonal variations in urban food consumption patterns in Cambodia has not so far been readily available, although the results of the National Institute of Statistics (NIS) Socio-economic survey of 1993-94 (released in January 1996) should provide some data (see NIS, 1994).

Food markets and food trade

There has for some time been an illegal import and export trade in rice and other food products, particularly with Thailand and Viet Nam. These two countries are major rice exporters. Cheap Vietnamese rice is often imported into Cambodia, particularly into urban areas, but also into rural areas. Such imports may have increased since the lifting of the ban on rice imports in 1994. In addition, substantial imports of fruit, vegetables and processed foods have come from these countries since 1992. Official rice exports were still effectively banned until November 1995, although illegal exports have continued. The quantifiable data available on the legal and illegal food trade since September 1993 are negligible, and little is known in policy-making circles about the structure of the trade.

Since 1994 the levels of food aid being supplied to Cambodia have not been particularly great by international standards, and considerable political leverage does not appear to have been exerted over this food aid in the way it has in certain other countries. The encouragement of trade liberalization and the permeability of Cambodia's borders has meant that food supplies from neighbouring Thailand and Viet Nam are having a greater impact on Cambodian food supplies. It is still hard to assess whether or not this food trade is creating dependencies on these countries and inhibiting local production,

although that would appear to be the case. Thus, there are some risks to national food security that remain a concern of some sections of the current Cambodian government.

Although considerable efforts are currently being made to rehabilitate the national road network, and a number of international agencies have assisted feeder road rehabilitation and construction, the transport network is still comparatively weak. Lack of security has inhibited access to particular areas (e.g. Preah Vihear, Banteay Meanchey, Battambang, Pursat, Koh Kong, Kompong Thom and Kompong Chhnang) and/or has increased marketing costs, as have unofficial road and waterway check-points which demand an “unrecorded tax” or payment to permit travel. Little is currently known by policy makers (or others for that matter) of the current structure and functioning of the domestic food trade, despite the recent efforts of AusAID support in the Ministry of Agriculture (see Cameron and Twyford-Jones, 1995).

Analysis of retail food price data suggests that since September 1993 urban prices have been fairly stable for major food items (except for fruit, vegetables and palm-sugar, which habitually experience seasonal fluctuations, and except in November/December 1994 when knowledge of the poor rice harvest substantially increased rice prices). Provincial time-series retail price data are much more unreliable, but there would appear to be greater price fluctuations and differences in prices in different provincial markets that suggest inadequate transparency in the markets or inhibited trade flows to certain areas (see Tickner et al., 1995). Some more remote areas with populations who have weak purchasing power appear to be getting caught in a downward spiral: they are costly to supply from outside and, as the market demand at such high cost is limited, this reduces the propensity of traders to supply these areas. None of this has been systematically studied, however.

Nutritional status of the population

No comprehensive nutritional survey has been undertaken throughout the country. Different local surveys, however, indicate significant nutritional deficiencies in Cambodia in recent years (see MoP, 1995). These surveys suggest that although acute undernutrition (verging on starvation) is currently not widespread in Cambodia, chronic undernutrition (Protein Energy Malnutrition — PEM) of children (as measured by correlating their weight to their age) is more widespread, and seasonal variations would appear to be significant. Undernutrition is particularly prevalent among children under five, amongst returnees, internally displaced people and inhabitants of peri-urban areas. Nutritional circumstances often appear to be worse in the wet season (from May to November) and in rural areas that are remote, with poor access to markets, rather than in urban areas. Deficiencies of Vitamin A, iron, and iodine appear fairly widespread, contributing to a high incidence of night blindness, anaemia and goitre. One study indicated that 50 per cent of pregnant women have anaemic deficiencies (quoted in UNICEF, 1995). Cambodian breast-feeding practices are being threatened by the unscrupulous promotion of breast-milk substitutes by commercial companies. There is still, however, a strong tradition of breast-feeding in the country, but not of giving colostrum. Often severe nutritional deficiencies among children appear to be linked with infectious diseases in the family, and/or child care approaches.

A number of nutritional deficiencies are not readily recognized by many Cambodians, nor even some health workers. In some places traditional attitudes towards certain foods have inhibited appropriate dietary patterns, and the diet mix is often inadequately balanced. More of certain fruits and vegetables would clearly be beneficial. Infant feeding patterns have a number of inherent weaknesses. Sometimes there are problems of ignorance in relation to food quality. A general lack of nutritional knowledge, particularly among mothers, contributes to malnutrition. The most significant factors influencing child malnutrition appear to be family size, infectious diseases in the family, nutritional ignorance and low literacy, although low household income and poor child care also seem to be strong contributory factors.

Household food security

Many Cambodian households, particularly in rural areas, could be considered food insecure and uncertain as to the sources of their food supply for the immediate future. This is particularly so at certain times of the year. The extent of this food insecurity is difficult to quantify, and varies considerably from one area to another, and from one household to another. In areas where agricultural production has increased in recent years, a significant proportion of the incremental production has been consumed by the producing households, indicating continued significant inadequacies in meeting household food needs (see Mandac et al., 1993). One recent study (UNICEF, undated a) indicated that most households in rural areas only had sufficient rice for consumption from their own production for about six months in a year, and that they purchased the rest. Their income from other income sources, however, is often low (see also van Iterson, 1994; FAO, 1994).

There are also many households which, in a normal year, may be fairly food secure, but which can be thrown easily into food insecurity by cataclysmic events (e.g. complete crop failure, sudden livestock death or robbery, landmine or other accident, sudden illness, spouse desertion, displacement through insecurity, or theft). This often leads them into a debt trap or, at worst, destitution.

The categories of households or individuals who currently are considered to be some of the most food insecure in Cambodia, and most liable to have malnourished members, are: farming households with limited land and/or limited productive means; households headed by a poor woman with a high dependency ratio (high proportion of care-receivers to care-givers in a domestic unit) and weak integration in social support networks (see CWS, 1994; UNICEF, 1995); single-earner households with numerous small children, particularly those which have an insufficient labour force to secure subsistence; households in which major illness is prevalent, particularly amongst the main income earners; returnees from the Thai-Cambodian border, with few assets, few supports, very limited landholdings and reintegration difficulties (see CWS, 1994; Davenport et al., 1995; UNICEF, undated b); landless rural households; amputees without adequate social support; families with adults or children who have severe disabilities, particularly from landmine explosions; elderly couples on their own; recent rural migrants to urban areas; families adopting orphans; unaccompanied children, orphans and “street children”; some ethnic minorities;

and internally displaced persons (IDPs). For most of these it is difficult to arrive at numbers of people from demographic data currently available. As of August 1995 there were still 92,324 internally displaced persons in Cambodia (WFP-Cambodia, **Monthly Newsletter**, August 1995). Not all of these categories are mutually exclusive and, where the negative factors accumulate, the households are generally even more vulnerable. Nor, however, are all families in such categories necessarily food insecure.

Although in the past Cambodians have been able to sustain themselves on agricultural production that has been largely extensive rather than intensive, this is becoming much harder. The soils of Cambodia are in many cases of comparatively poor quality. Their overcultivation, or inappropriate farming systems, can contribute to further deterioration in soil quality and productive potential. Some of these problems have an earlier origin. Despite having substantial areas of cultivable land, the current land tenure arrangements and disputes, size of holdings, quality of particular parcels of land, and reduction of land availability in some areas because of landmines, mean that sufficient land is not available for many households that are unable to cultivate enough food for themselves by more extensive methods. Accordingly, there is growing pressure to intensify production, but adequate mechanisms for generating and providing inputs and the technical knowledge needed to support such systems are only very gradually coming into place.

Income generation and migration

The total number of farming households is about 1.3 million, and the majority of farm units are small (1 to 2 hectares or less). Some 75 per cent of the active population engages in agricultural production, supplementing incomes through crop processing, craft production, local trading, construction and service activities. About 65 per cent of agricultural producers are women. Men from some rural areas have traditionally migrated to urban areas for seasonal work, but women are increasingly doing so as well. There are still about 350,000 civil servants in the country, and some employment in industry (about 5 per cent nationally, and 12 per cent in Phnom Penh). Employment in construction constitutes a high percentage of urban employment in industry. Services constitute about 20 per cent of employment nationally, and about 75 per cent in urban areas.

Rural Cambodians have for a number of years supplemented their income and food supply from other income sources. They have engaged in rural agricultural and non-agricultural employment, and habitually men from some areas have migrated seasonally to urban areas in search of additional income. The limited agricultural productive potential, income-earning potential and/or asset base of substantial sections of the Cambodian population, particularly many of the rural population, is one crucial aspect of recent developments in national food security since 1993. Limited availability of land and means of production have meant that, recently, many households have become more dependent on these activities to provide their basic food supplies. Rural employment does not appear to be fulfilling this need, and increasingly people appear to be migrating for seasonal work or migrating more definitively, particularly to urban areas. The extent of these trends is difficult to quantify, however. The growth of investment and economic development in urban areas is acting as a pull factor.

Environmental considerations

In recent years there also appears to be growing ecological mis-management or non-management of problems that are weakening food security. This is particularly so in relation to deforestation, leading to: the elimination or reduction of plant and animal species; a decline in wild food acquisition; siltation in rivers (particularly in Battambang), which is inhibiting irrigation; soil erosion that reduces the fertility of land; increased water run-off causing soil erosion and flooding that lessens harvests; reduced fish supplies resulting from siltation of lakes (particularly the Tonle Sap) and a reduction of the area of forests that are submerged in the rainy season and which are important for fish breeding. Deforestation may also be producing climatic changes that adversely affect agricultural production. Other environmental problems that have been noted in Cambodia include unsound pesticide and fertilizer use; pollution of water courses; and siltation of rivers induced by gem mining. Although recognized as problems, there has been little attempt to measure or analyse them in any depth. Accordingly, weighting of these factors in relation to food security is difficult. Nor have clear strategies to overcome them been forthcoming.

Commercial logging (both illegal and permitted) has been having a major impact on deforestation, with vested interests in the military, certain businesses, high-level government members of different parties, local officials and some local populations colluding to keep the exploitation going, sometimes despite their protestations to the contrary (**Global Witness**, 1995; **Phnom Penh Post**, Vol. 4, No. 17, 1995). Sometimes forest areas have been denuded abruptly for agricultural cultivation, but not always in well-planned ways. A number of returnees, internally displaced people and poorer sections of the community with little land or poor harvests have turned to forest and timber/fuelwood supplies to earn income. The demand for timber supplies, particularly for house construction in urban areas and elsewhere, has stimulated this activity, although export demand is much more important. It is also clear that there has been careless exploitation, particularly in slash and burn cultivation in places like Ratanakiri. Many areas where deforestation is taking place have had restricted and controlled access by the military, making assessment difficult, and not enough resources have been going into monitoring and regulation of land use and logging practices. The negative consequences of land degradation on local food security may far outweigh other measures being taken to alleviate it.

Psycho-social problems

The dramatic events that have convulsed Cambodian society during recent decades mean that many people today experience psycho-social problems that inhibit their capacities to integrate socially and function. The withdrawal or non-availability of social supports from family or members of the community contribute to the difficulties of certain people in securing adequate food and sustainable livelihoods. A number of social structures and support systems have broken down in Cambodia in recent years, and this breakdown contributes to certain cases of household and individual food insecurity (see section 3).

3. CURRENT FACTORS LEADING TO FOOD INSECURITY

Establishing the comparative importance of different factors that currently contribute to food insecurity in Cambodia is difficult, partly because it is so hard to quantify with any reliability most of these factors. The major constraints in rural household food security appear to be: agro-ecological fluctuations; insecurity; inadequate land holdings and poorer quality land of most food-insecure families; availability of and access to water for irrigation, or, conversely, risk of flooding; lack of animal draught power; lack of agricultural equipment; lack of male labour in some women-headed households; lack of alternative employment opportunities; exploitation by richer families in the village and lack of social support; illness and inadequate hygiene and living conditions for adequate health, causing further illness and weakening the income-earning potential; some household indebtedness; weak asset bases; weak market provision, linked with low purchasing power; and nutritional ignorance (WFP-Cambodia, 1994; FAO, 1994; Tickner et al., 1995). This section aims to indicate the nature and characteristics (and where possible the scale of importance) of the major elements contributing to food insecurity, the underlying factors contributing to these elements, and the scope for changing them. The order of their sequence below does not reflect their ranking.

◆ 3.1 Agro-Ecological Conditions

As in many countries, climatic factors and water supplies (or oversupplies — i.e. excessive flooding) have a major impact on the overall availability of food within the country and at the individual household level. This is particularly so in Cambodia, where much of agriculture and inland fishing is directly influenced by these factors, with limited capacity at present for the appropriate control of water supplies. This can be particularly important for those communities or households that risk losing much of their food production from such factors, and have a very limited asset base or alternative income-earning potential. It is also more important for those communities that are more cut off from possibilities of market supply at prices within their purchasing power.

With weak demographic, agricultural production and food consumption statistics, it is difficult to assess the overall and local variability in food availability caused by such factors. Nevertheless, using what data are readily available for the period 1984/85 to 1993/94 (Tickner et al., 1995, table E13) the estimated shortfall in energy food availability from national production, as a percentage of estimated consumption needs in any one year, has appeared to range from about 43 per cent in 1984/85 down to 0 per cent in 1989/90, with a mean of 14.4 per cent per year. If the high percentage year of 1984/85 is excluded, the mean for the nine-year period would be 11.2 per cent. Accordingly, the shortfalls in 1992/93 of 18.3 per cent and 14.2 per cent in 1993/94 are above this mean. Figures for 1994/95 are also likely to be above this mean, indicating successive serious shortfalls during the last three years. This cumulative shortfall has placed an even greater strain on communities and households in particular areas that have suffered successively from these

factors. Analysis of each province on this basis is not readily possible, but data from one study of Kompong Thom province (MRD/GTZ, 1995) covering the same period indicated that the mean annual percentage of cultivated land damaged by such factors, ranged from 0 per cent to 21 per cent, with a mean of 10.1 per cent, with estimates of 21 per cent for both 1993 and 1994 (Tickner et al., 1995, table H15). Because of the nature and location of their land holdings, some individual households in an area can be strongly affected by such factors, when others in the same area are not.

One way of controlling, to some extent, negative impacts of excessive run-off or temporarily inadequate water supply is through irrigation and drainage schemes. In 1992 the total irrigated area in the country was put at 305,000 hectares, out of a total of wet and dry season cultivated area of 1,532,400 hectares (FAO, 1994, Vol. 2), constituting about 20 per cent of the cultivated area. In rainfed lowland systems the distinction between irrigated and non-irrigated areas is sometimes difficult to make, as much wet season "irrigation" comes from direct run-of-river diversion (where moving water from nearby water courses is channelled into neighbouring fields), or the pumping or release of stored surplus run-off. Of the wet season "irrigation", 75 per cent is gravity-based, as is 63 per cent of dry season irrigation. Battambang, Banteay Meanchey, Kompong Thom and Takeo have most irrigation schemes, but other provinces in the plains also have irrigated areas.

The Ministry of Agriculture, Forests and Fisheries (MAFF) has been keen to promote irrigation schemes. About 20 NGOs have engaged in investment in irrigation rehabilitation or new investments. A consultant study undertaken in 1994 (quoted in FAO, 1994), however, envisaged that rehabilitation of existing schemes could take the irrigated area to 642,000 hectares, but only increase production in those areas by about 11 per cent. It was concluded (FAO, 1994) that there are currently limited opportunities for economically justifiable investments in the short-term in irrigation. The best investments could be in rehabilitating systems that could easily be put back into operation, supplying small mobile pumps for flood recession rice and dry season vegetables, and developing more run-of-river diversion schemes and storage schemes for wet season run-off. Some larger agencies are beginning to do this, but a number of NGOs are withdrawing from this field. Some of them have experienced considerable difficulties with irrigation schemes. Problems have arisen, in particular, when local authorities have imposed approaches on farmers in a top-down manner, rather than supporting initiatives from the local community that promote participation of all users (see **Phnom Penh Post** Vol. 4, No. 15, 1995). Sometimes the irrigation systems were not used or did not work well. In other cases there were co-ordination difficulties between different agencies involved.

In the longer term some more substantial irrigation schemes could be an important option. There is a justifiable wariness in relation to large river dam schemes and their possible negative ecological effects (see **Phnom Penh Post** Vol. 4, No. 16, 1995). Given the importance of the Mekong river for Cambodian water course systems, up-river developments and offtakes in neighbouring countries can have a major impact on water levels, agriculture and inland fishing in Cambodia. Such developments have given cause for concern. There would appear to be limited immediate scope for influencing climatic/water course fluctuations through such means, and the comparative cost of such options in relation to others would need to be closely studied;

nevertheless judicious investments in this direction are needed and sought, particularly for some types of irrigation rehabilitation.

Changes in the characteristics and flows of water courses, particularly in relation to water levels in the Tonle Sap Lake and rivers, and siltation can have major negative effects on inland fish breeding and availability. Concerns in relation to the Tonle Sap are about to be investigated by the Ministry of the Environment (MoE). Some of these effects have human origins, such as deforestation and gem mining, but to date no systematic evaluation or measurement of the impact of these effects has been made. Inland fish supply constitutes an important component of rural protein supplies in Cambodia.

Another agro-ecological factor of importance in food production is the quality of soil on cultivated land. Only about 9 per cent of the cultivable land in Cambodia is considered to have rich soils, most of the remainder being considered poor. Within any particular area the quality of land of particular land holdings can vary quite markedly. Accordingly, a traditional practice has been to allocate different parcels or strips of land to individual producers to give each at least some better quality land. One difficulty since 1992 has been that many returnees, internally displaced people, landless persons and young couples have only had poor marginal land available to them to cultivate. This has sometimes seriously handicapped their potential for production.

It is of course possible to improve soil fertility. This is done annually in many of the plains areas by the alluvial deposits resulting from flooding of the fields. Organic fertilizers, particularly animal manure, have been widely used in Cambodia, but mainly on garden plots and nursery beds. Some composting is undertaken. Organic fertilizer preparation and conservation are looked upon favourably by many farmers (Lando and Mak, 1994). Chemical fertilizer use is not as widespread as organic fertilizer use, but has increased since the 1960s, when only the larger, more commercial farmers used it. In the 1980s the Soviet Government provided cheap imports of fertilizers until 1989, reaching a peak supply of 52,830 tons in 1988 (OSRO/FAO, 1991). With the withdrawal of Soviet supplies, fertilizer imports dropped to between 13,000 and 17,000 tons over the period of 1990 to 1992. *Chamcar* farmers (producing fruit and vegetables), engaging in multiple cropping near riverbanks, often use chemical fertilizers on their more intensive production, as do rice farmers (see Ledgerwood, 1992; UNICEF, undated a; UNICEF, 1995). In times of stress they avoid using chemical fertilizers and reduce their organic fertilizer use. Considerable supplies of fertilizer have come through aid since 1993, particularly through the FAO and JICA. The distribution of fertilizers through COCMA (the parastatal under MAFF) has not worked well and has apparently been affected by corruption (Bernander et al., 1995:48). COCMA handles about half of the supplies, the rest coming through private trade and illegal cross-border flows from Thailand and Viet Nam.

MAFF appears currently to be encouraging more intensive as opposed to more extensive cultivation, as well as a more judicious use of different types of fertilizer. The agricultural extension capacity for advising on such judicious use is still very weak, and only growing slowly. A number of NGOs, however, have provided such extension (see Ratner, 1995). The availability and cost of chemical fertilizers can inhibit sustained use or result in misapplication. Their

prices often put them out of reach of poorer farmers. Furthermore, poor quality fertilizers have often been sold as better quality ones.

◆ 3.2 Security

During the last two decades Cambodia has been subjected to continued political conflicts, wars and brigandry that have depleted the population and weakened substantially the productive capacities of the country. The military conflict continues, making a number of areas insecure, particularly in the north-west, centre-north, and south-west near the Thai border. The nature of the Khmer Rouge strategy, however, has been to maintain military pockets in different areas of the country, enabling them to have a disruptive impact through limited use of military resources. There is also a continued use of landmines that may either put areas out of use or badly injure local farmers. This military instability is only slowly decreasing. One legacy of these conflicts has been an increase in self-seeking, self-protective attitudes, and quite a number of people have turned to aggressive ways of obtaining what they want, thus increasing the incidence of robbery.

This insecurity has led to a destruction of productive capacity (an estimated 600,000 to 900,000 hectares of land that had previously been used to cultivate rice cannot be used because of various forms of insecurity — UNICEF, 1995); wasteful consumption of resources (60 per cent of the 1994 government expenditure went to defence); ongoing human migration and resettlement (as of August 1995 there were still 92,324 internally displaced people in Cambodia, of whom 48,191 had been displaced for over a year — WFP-Cambodia, **Monthly Newsletter**, August 1995); and social disharmony. As of July 1995 most of the internally displaced were in the provinces of Battambang, Kompong Speu, Siem Reap, Preah Vihear, Kompong Chhnang and Banteay Meanchey. Because their possessions and livelihood had been lost in many cases, such people have had little possibility of producing food themselves and have hence had to depend on the provision of relief aid. Sometimes, however, they have been given opportunities for acquiring food through food-for-work schemes. Ongoing conflict has not only taken cultivable areas out of use, it has also made certain areas inaccessible. This strongly inhibits food trade with these areas and the provision of relief food aid (e.g. Preah Vihear). Insecurity thus remains one of the major factors still inhibiting food security.

Landmines, in particular, pose a major problem. In early 1994 it was estimated that 10 to 20 per cent of cultivated land was out of use because of landmines and other ordnance (Shawcross, 1994). Later figures put the area at 200,000 hectares (FAO, 1994). A more recent estimate by IRRI/CMAC maintained that 55,000 hectares were lost to paddy production — **Phnom Penh Post**, Vol. 4, No. 15, 1995). Most of these areas are in Battambang, Banteay Meanchey and Siem Reap provinces, where some of the richer soils are. CMAC is currently mapping such areas, but it is still not clear how much readily cultivable land in each province is involved. There is no well-developed national strategy for tackling the demining of cultivable areas, although initiatives have been undertaken in certain provinces. The demining agencies are conscious of its importance for some rural communities, but demining of most agricultural land is a very expensive and resource-consuming activity. Priorities to date have focused more on infrastructural, access and tourist area demining. These

circumstances contribute strongly to the limited availability of cultivable land in some areas.

◆ 3.3 Land Tenure

Before 1970, except on some riverbank areas or near urban areas, Cambodians had not generally experienced serious shortages of land for cultivation, although the quality of land may not always have been very good. The cultivated area of land is currently put at about 21-22 per cent (3.8 to 4.0 million hectares) of the total land area, compared with 17 per cent in 1967 (3.0 million hectares) (FAO, 1994; Tichit, 1981). The estimated cultivable land is about 8 million hectares (44 per cent of total land area). Hence the cultivated areas are currently greater than in the 1960s, and in theory there is still scope for extending the area of cultivated land. Other estimates, however, put the rice-cultivated area at 1.9 million hectares today, compared with 2.5 million in the 1960s (see **Phnom Penh Post**, Vol. 4, No. 15, 1995). Accordingly, it is still difficult to get a clear picture of trends in the cultivated land area.

In 1962, 84 per cent of agricultural households owned their own holdings and in most parts of the country there was enough land available. The mean hectareage per farm was about 3.5 hectares for rice farms (80 per cent of the total), but larger in the north-west (Tichit, 1981). In 1967 over 85 per cent of farms were under 5 hectares. Under the Khmer Rouge government collectivized cultivation and food distribution was the norm at the local level, and all cultivable land came under the ownership of the state. Although there were several fairly egalitarian land distributions over the 1980s, individual land holdings are now much reduced in size. After 1979 the *krom samaki* system of collective production in solidarity groups was organized, by which between 15 and 25 hectares of land were allocated to 12 to 15 families to cultivate. By 1987 there were about 98,000 such groups. Although initially the government provided incentives to promote greater collectivization, most groups operated like associations of private farmers. In 1989 collectivization was formally abandoned, state ownership of land was rescinded and the possibilities for private holding and sale of land reintroduced. In 1989 the mean national holding was 1.2 hectares, compared with 2.2 hectares in 1961 (Ledgerwood, 1992). In the 1960s a farm size of 2 hectares was usually considered the minimum required for an average household of 5.5 people to secure all their major food requirements. More recent assessments have put it at about 1.2 hectares (UNICEF, 1995) and at between 1.3 and 2.0 hectares in Kompong Thom (MRD/GTZ, 1995). Accordingly, many households do not have sufficient land to provide for their basic food needs. One study in Pursat (Shams et al., 1994) indicated that annual rice deficits in holdings of 1.5 hectares were only of two months, whereas they were of over five months for families with less than half a hectare (22.4 per cent of families). Over 82 per cent of the households in this survey had one hectare or less of rice land. The size of holdings of women-headed households has been found often to be less. One study indicated an average of 0.76 hectares/family among female headed households (Sida, undated:88).

One recent study has shown that with more intensive and diverse production smaller units can and do provide enough sustenance for individual households (Davenport et al., 1995). Returnees, internally displaced people, young couples

and women-headed households particularly seem to have limited land holdings, and the liberalization of land markets appears to be working more against these groups. Because of this many Cambodian smallholders increasingly rely on other income sources for a substantial part of their subsistence, and these are often becoming more important in food supply terms than agricultural production.

With the second Land Law in 1992, the government further redistributed land in the country in a manner that sometimes caused resentment because of greed, corruption and political bias in the distribution. Some land was taken over by the state or local authorities and then distributed to individuals who, in turn, sold it for speculation. This sometimes reduced the land available to local farmers (see Ledgerwood, 1992). Some land still belongs to the state, but it is not clear what area is involved and how much is readily cultivable land. Much of it is forested land, but in other cases it may be land that has been abandoned.

Land disputes have broken out in a number of places, particularly in Battambang (where land is richer); Kompong Cham (where demand is high for industrial use); Kandal (near Phnom Penh, which is a major market); and Kampot (which has considerable tourism potential) (see **Phnom Penh Post**, Vol. 4, Nos. 3, 10 and 17, 1995). The claiming by returnees of land that their families had owned before 1975 has led to some disputes. Fraudulent land transactions, the reclamation by displaced people of previously held land, and the acquisition of concessions by big companies (e.g. for logging) in Ratanakiri have also led to disputes. Substantial areas of land (mainly forested areas) have been leased in concessions but data on the location and extent of such agreements in different provinces are not readily available. In rural areas the provincial and district courts decide on land disputes, but in some areas they are resolved by village heads and local monks.

Complete landlessness is still not as great in Cambodia as in some other countries. However, for some returnees and internally displaced people landlessness or only having access to largely uncultivable land is a serious problem. The survey cited above (Shams et al., 1994) estimated that between 2.5 and 9.1 per cent of households in the villages studied were landless, but generally it appears to be increasing. Another study in 1994 indicated that 22 per cent of people in the area surveyed had no land at all for rice growing (quoted in UNICEF, 1995).

Renting of land and share-cropping arrangements do take place in Cambodia, but little has been recorded on how they operate. In 1989 farmers were permitted to rent extra land for a proportion of the yield, but not for cash (Ratner, 1995). With the current instabilities over land tenure, however, some owners are reluctant to rent out their land to others in case they cannot retrieve it afterwards. Nevertheless, some people with limited means of production (particularly some women-headed households) who own land prefer to rent it than to sell it.

Quite a lot of land speculation appears to be taking place, and not only in urban areas. Land transactions, even without titles, are quite easy to make. Soldiers appear to have taken over land in some places and sold it to businessmen, and authorization is obtained through personal and corrupt linkages. Some people are in no hurry to get land titles, fearing (with perhaps some justification) that if they have a title they may be taxed, as discussion on reapplying land taxes

continues. In some places poor land demarcation has led to conflicts even between foreign firms with land concessions. Foreigners are also buying land through Cambodians for speculative purposes, particularly in areas between Phnom Penh and Kompong Som.

From the point of view of food security, it is clear that many households do not have enough suitable land to supply their food needs. In some areas there would appear to be state and other land available that is not being fully used, but in other areas it is scarce. People appear very reluctant to be settled in some parts of the country where land may be available, but which is away from their area of origin and in a different community. More intensive cultivation of smaller landholdings can sometimes be feasible. Alternative tenurial arrangements for land cultivation might have considerable scope if such arrangements could be regularized and supported by law or social structures, as some land seems underutilized. For example, a two to three year (or longer) land lease system could be more firmly established and encouraged, enabling immediate cultivation, but with a clear understanding that the land would be returned to its owner at the end of the period.

◆ 3.4 Means of Food Production

Another significant constraint on many households is inadequate means of food production. Most Cambodian farmers rely heavily on draught animals to cultivate their land. Buffalo are usually used in pairs for ploughing. Cattle (and horses) are preferred for pulling carts. The level of farm mechanization is very low and most forms of mechanization are uneconomic for many producers.

In 1994 the total number of draught animals available for the wet season rice crop was considered to be sufficient (FAO, 1994, Vol. 2), but there could sometimes be bottlenecks in land preparation in the provinces with higher population densities and smaller land holdings. It was considered that the availability of draught animals in Battambang and Banteay Meanchey was deficient at that time. A more recent study (MAFF, 1995) suggested, however, that there was still insufficient animal draught power in the south-east of the country. It has been considered that shortages of draught animals in particular areas have more to do with economic factors than the capacity to supply sufficient draught animals. Because of high demand in Thailand, there has been an exodus of draught animals from the western provinces of Cambodia. Such export is difficult to control. The numbers of draught cattle have continued to increase, but the numbers of draught buffalo appear to have dipped in 1993, after regularly increasing for a number of years (see Tickner et al., 1995, table A42). There appears to have been some substitution of draught buffaloes by draught cattle.

It is estimated, however, that about 30 per cent of Cambodian farming households do not have a pair of draught animals and have to hire them, as they do not have access to sufficient assets or credit to purchase them. A recent study in Kampong Thom suggested that this percentage was nearer 10-20 per cent according to different villages (MRD/GTZ, 1995). The 1995 MAFF study, however, indicated that 44 per cent of households in Takeo, 49 per cent in Kandal and 58 per cent in Prey Veng either had no cattle or only one animal (MAFF, 1995). In Prey Veng this was somewhat compensated for by the greater number of buffalo. The lack of draught animals or access to them at a

reasonable price at the time when they are required can be one of the greatest constraints on farming households. If a household loses its draught animals through accident, theft, landmine, disease or financial difficulties, they may have difficulty in accumulating sufficient funds for replacement animals. With high hiring costs, this can lead households into longer-term food insecurity.

As a consequence of this, various credit schemes for draught animal acquisition have been tried, from direct credit to animal banks. Mechanical traction is not a viable economic alternative for most households. Women-headed households without male labour have often had particular difficulties with animal draught power (see Ledgerwood, 1992). Although some women have acquired animals, using them, acquiring labour power to use them, lack of pairing animals, keeping them in good health, protecting them from theft and feeding them have sometimes presented considerable problems (Kennedy and Chhoeun, 1994; Bosgra, 1994). Pig banks have also encountered difficulties, and pig-rearing by very poor families has often proved difficult, particularly in terms of animal feed supply (see Bosgra, 1994). Besides credit, disease control, draught animal breeding programmes, improved feeding and establishing breeding areas in specifically deficit areas of the country have been proposed as means of increasing the supply and/or improving the utilization of draught animals. Some efforts have been made in disease control and improved feeding.

Even simple tools and ploughs are not owned by some poorer sections of the rural community and, once worn out or lost, poorer households sometimes have difficulty replacing them because of cost and weak purchasing power. Access to improved seed is also difficult for many farmers. They generally supply the vast bulk of seed from their own retentions. In one study in Pursat, one farmer was quoted as saying "Farmers prefer the condition of lack of food to lack of seed" (Shams et al., 1994). Much improved seed is currently imported from Viet Nam or Thailand by the private sector. Except in the case of vegetable seed, farmers are unlikely to purchase fresh seed annually, but appear to be interested in and need improved quality commercial seed. In the past the diversity of seed varieties in Cambodia, particularly for rice, was considerable. There are some risks that an overconcentration on certain types of improved seeds may lead to reductions in biodiversity and reduce the longer-term viability of such seeds.

Pest attack can sometimes be a significant problem. The MAFF study in the south-east indicated that for some farmers pests were more of a problem than drought (MAFF, 1995). In Svay Rieng Province recent insect infestations have destroyed crops (see WFP-Cambodia, **Monthly Newsletter**, August 1995). Pesticide imports were about 33,000 litres per year in 1989 and 1990, but dropped to 11,000 litres in 1991 and 16,730 litres in 1992. The private sector is now entering more into pesticide supply. Because of environmental impacts, particularly in irrigated areas, more attention is being given to integrated pest management by MAFF, and pesticide application is being closely watched by the Ministry of the Environment and MAFF. It can have very negative effects on fishing in paddy fields. Integrated pest management (IPM) is particularly advocated for horticultural crops, intensive rice production and soybean/mung bean production.

Besides physical inputs (including water supply and fertilizers which were discussed above), labour supply can also present serious difficulties in food production. Cambodia's farming system is still largely characterized by a

dominance of household production incorporating different members of the household, both adults and children. All able-bodied members of a farming family are usually involved in certain production tasks. In the more food-insecure households the labour of children is often greater, but no systematic study has been undertaken in Cambodia as to how exactly such child labour may increase with the degree of food insecurity.

For some tasks additional labour is hired or exchanges of labour are made. In the past there was greater gender differentiation of agricultural tasks. With the conflicts of the last 20 years and the shortages of male labour that ensued, women have often had to take on a number of tasks that had previously been undertaken primarily by men. Although the male/female imbalance appears to be gradually returning to normal (see NIS, 1994), the gender allocation of certain tasks is now much more blurred and more tasks appear to be undertaken by both sexes (see Ahlars and Vlaar, 1995). In any case, in most farming households adults tend to discuss and agree tasks according to need and individual labour availability. The hiring of additional labour, particularly for ploughing, transplanting and harvesting, appears to be increasing (Ledgerwood, 1992) and labour exchanges are decreasing, but this may be more so in the Phnom Penh area, which is more integrated into the cash economy.

Differences in the labour division in households are strongly influenced by the availability of male labour in the household, or the capacity to hire appropriate labour. Women-headed households without access to male labour have been found to have particular problems. The *krom samaki* system, encouraged during the 1980s, which involved the sharing of agricultural equipment, draught animals and male labour, helped by giving households better access to male labour and production means. Since the return in 1989 to more individualistic approaches to farming, this sort of support to women-headed households has decreased. Finding men for ploughing has been particularly hard in some areas, and some women have turned to doing this work themselves. Finding men prepared to do the arduous and dangerous task of climbing trees for sugar-tapping is also becoming harder. This is work that women usually never attempt.

Most adults, and particularly women, are busy throughout the year, but rice production usually dominates their seasonal activities. If not much work is required for rice production, people engage in vegetable cultivation, cutting and weaving palm leaves, petty trade and house repair, or seek work elsewhere. There are very few really slack periods of the year. In certain areas (e.g. Kandal and Takeo) processing sugar palm remains an important source of income for many households. In some villages of Kompong Speu and Prey Veng, sugar palm provides over 90 per cent of monetary income for about 25 per cent of households. Fishing is an important source of income and food but many poorer families cannot afford more suitable boats (Mehta, 1993). Duck-raising for eggs, fish from aquaculture and vegetable production for sale are important food-producing activities that provide additional income. Women in rural areas often sell their labour for rice transplanting, harvesting and threshing, as well as for crop processing tasks, or engage in labour exchanges with other people. Some poorer households exchange human labour for bullock draught labour (MAFF, 1995). Some of these activities may bring additional income to the household but may impose constraints on the cultivation and harvesting of their own crops.

◆ 3.5 Non-Agricultural Employment

Most Cambodian farmers do not produce enough rice to cover household consumption needs for the whole year. Several studies (UNICEF, undated a; NIS, 1994) have shown that substantial proportions of the food supply of rural people are purchased. Accordingly, they often turn where possible to other sources of income to cover these deficits. As seen above, one of the first sources of income sought is from other agricultural, animal-rearing or fishing activities. In addition, many women engage in food processing or food preparation, thereby adding value to crops and animal products already produced.

The main other types of off-farm occupation that women usually engage in, particularly in the “lean” season, are: trading (particularly in vegetables) (Azad, 1994); cooking food (particularly rice cakes and noodles) and selling delicacies (e.g. sweetmeats, desserts and snacks); hammock and basket making; mat weaving; palm roof making; clearing forest or gathering fuel from the forest; they also sometimes work in the commune offices or as teachers. Men tend to find employment more in formal jobs, construction, artisanal work, harvesting rattan, woodcutting, rice milling, tricycle taxi driving or goods handling, and it is usually they who will migrate in search of employment, although some women also do so, to work on building sites and in other occupations (Azad, 1994).

A recent study in one village in Kompong Thom showed the importance of different occupations from the point of view of cash income and home consumption (MRD/GTZ, 1995). Chicken raising, pig rearing, thatch making and firewood collection were the most important cash income generators. Unfortunately, no recent detailed studies on the allocation of labour time in rural areas appear to have been made, so it is difficult to get a clear picture of particular pressures on labour use and the scope for easing such pressures. Nor have trends in the growth or decline of individual occupations been studied systematically. This has meant that the peculiarities and potentialities of individual occupations are poorly known and accordingly a prioritization of which occupations to encourage is difficult to make. Some efforts at promoting specific occupations can lead to oversupply. Labour use is particularly important with regard to the lives of women because of the considerable pressures imposed on them in relation to household tasks and child-rearing, as well as their contribution to the family income and food production. Lack of male labour in the household and inadequate child-care support were found to be two key factors leading to the vulnerability of some women-headed households (UNICEF, 1995).

One study of returnee households in Battambang (Davenport et al., 1995) indicated that seasonal agricultural activity is important for many households but that those which were more economically successful had diversified more, using seasonal agriculture as a “backstop” activity. Trading near to the village, making and selling goods, fishing and raising chickens, ducks and pigs were all significant amongst the diversifying activities, whereas trading further away, transport activities, using earlier developed skills and shopkeeping were not as important. Many of the more successful diversifying activities, however, were linked to production, processing and trade in cultivated products.

The experience of many of the food-for-work schemes in Cambodia in 1994 and 1995 has indicated that there remains a significant demand for income generating activities in rural areas that is far from being met (ILO/UNDP, 1994). Knowledge of the functioning of rural labour markets and occupations in these areas that offer a significant economic potential is still weak, as few resources have gone into analysing these aspects. As a consequence it is hard to assess the potentialities and limits involved in supporting particular rural occupations.

The circumstances of urban labour markets have also not been well analysed to date. Habitually, rural men (and some rural women) have migrated seasonally to urban areas to seek employment during the dry season. Some estimates put the number of seasonal migrants at about 300,000. Seasonal migration appears to have increased in the last few years, with people staying longer in the urban areas chasing work, and even moving more permanently. One survey in April 1994 indicated that 85 per cent of “street people” begging in Phnom Penh were seasonal migrants, most coming from the provinces in the south-east (quoted in UNICEF, 1995). Unfortunately there are not reliable quantitative data available to indicate the extent of such migration. Quite a number of returnees who have found it difficult to find sustainable livelihoods in rural areas also appear to have moved to the major urban areas. The urban population of Cambodia is currently thought to be about 1.2 million to 1.5 million (between 12 per cent and 15 per cent of the total population).

Whereas during the UNTAC period (1992-1993) much employment was created in urban areas, some of it was not sustainable, particularly when it involved activities that catered to the desires of the UNTAC personnel, such as some types of restaurant and night-club employment. The urban construction industry and some service trades, however, continue to boom, and much recent investment has been directed more to urban areas. The pattern of urban growth is not particularly based on longer term investments in sustainable sectors, however. Given the lack of employment opportunities in rural areas and the desperate need for additional income of many rural households, this comparative boom in urban areas draws in more people. Nevertheless, these migrants still have limited possibilities for finding employment, and accordingly some pockets of food insecurity exist in the urban areas amongst different groups of people, particularly amongst some recent migrants.

◆ 3.6 Weak Asset Bases

One important aspect of the ways in which individuals and households sustain themselves through periods of food insecurity is through the disposal of certain types of asset, particularly savings, disposable assets that were specifically acquired for such purposes (e.g. gold, jewellery, pigs, etc.) and goods considered to be “luxury” items by the household (e.g. radios).

Most Cambodians try to accumulate some such assets to help them through difficult periods. Chickens and piglets, in particular, are raised as liquid assets. When the Khmer Rouge government was removed in 1979, as well as when the UNTAC-led peace process commenced in 1992, quite a number of people were suddenly able to mobilize such assets to enable them to rebuild their lives. The

NIS Socio-economic survey first round of late 1993 (NIS, 1994) looked at a selection of possessions of households. As might be expected, a higher percentage of urban households had the selected items than rural ones, except in the case of bicycles, which 56 per cent of rural households had. No systematic study of the assets of particular communities in Cambodia appears to have been undertaken recently, and certainly not from the point of view of their potential for disposal to overcome food insecurity. Such studies are difficult to undertake because people are often reluctant to reveal all such assets to outsiders. This is particularly the case in Cambodia, where fear of robbery, risk of taxation and a certain mistrust make some people unwilling to disclose such information. It is also information that is likely to be minimized when it is being sought by government or other organizations that have a support brief, because people wish to minimize the extent of their wealth in order, hopefully, to benefit more from the support organization. This type of response has occurred frequently in Cambodia in the last three years, with the sudden influx of relief and support organizations. In an emergency involving more substantial sums, such as illness, many Cambodians appear to prefer selling off some assets rather than getting into serious debt (see Ledgerwood, 1992:78). Poorer people with fewer liquid assets often cannot do this and accordingly often become acutely indebted.

Many Cambodian households, particularly rural ones, have a very slight asset base. One recent study in the south-east provinces (MAFF, 1995) indicated that “most of the farmers have very little cash income and have little savings”. Illness or accident in the household has often been seen to be a major cause of asset depletion, as has theft or loss through military insecurity. Many returnees, although given initial support, have few assets and limited income-generating possibilities. In addition, three successive bad harvests in 1992, 1993 and 1994 in some rural areas have further depleted the asset bases of quite a number of households.

◆ 3.7 Borrowing and Credit

Another common response to food insecurity, particularly if it is viewed to be short-term or seasonal, is to borrow food or money to buy food in order to bridge the gap, rather than dispose of assets. Much of the borrowing that takes place in Cambodia is short-term borrowing for food, primarily from relatives or friends. Although more people now seem to borrow than was the case in the past (Ledgerwood, 1992), the amounts are often small and swiftly repaid. It is usually women who undertake borrowing for the household. There is often consultation amongst the adult household members before borrowing takes place, particularly if the sums involved are substantial. Many households are quite reluctant to get into debt and will usually borrow first from relatives or friends/ neighbours before they have recourse to moneylenders, who charge high interest rates (often 100 per cent a year or more). These moneylenders are usually local richer farmers or millers. Often rice is borrowed on the understanding that at harvest double the quantity borrowed will be returned. Farmers who have to borrow cash several months before the harvest then have to pay back in rice at harvest time at a price generally 20 per cent to 50 per cent below the market price at harvest time. The prices offered to farmers at harvest time are generally lower as well, making it doubly detrimental to such borrowers.

More food-secure, better off households tend to have a better credit rating and will borrow for input investment (draught animals, water pumps, rice mills or fertilizer/seed). Borrowing has not been particularly for investment in recent years, but more for immediate needs and dire necessities. Poorer households, with few assets and little collateral, tend to borrow quantities of food, cash to buy food or cash for medical needs. One study (Ledgerwood, 1992) indicated that “paying for medical care is one of the main causes of debt”. Where people borrow for medical reasons the interest rates can be higher (Ledgerwood, 1992). This is probably because the moneylenders experience more risk in lending to families with illness, as the productive capacity of the latter is reduced and the ill people may not recover. Religious/social festivals, clothing and house construction also involve cash needs, and sometimes borrowing is undertaken for these items. Although marriage ceremonies can entail considerable costs, at a high percentage of such ceremonies monetary gifts from the guests help allay the costs.

Debt problems appear to have been greater in some more remote areas than in those near to urban centres, as in the latter there have been more opportunities for income-generation (see Ledgerwood, 1992). Some people have borrowed for agricultural investment in recent years but crop failures in 1993 and 1994 have left them in debt and unable to repay their loans. Some people who borrowed for house-building found that their income sources dried up (e.g. because of job instability or ecological difficulties which reduced production), leaving them seriously in debt (Ministry of Agriculture, 1994). It is difficult to get a clear picture of how many people really have serious longer-term debt problems, and of the nature of debt-recall and debt rescheduling among rural moneylenders.

Formal credit is rarely available in many rural communities. A number of NGOs have been engaging in credit schemes since 1991, and the European Union (EU) contemplates doing so in the near future, but these still only touch a small percentage of the population. Some of these schemes have experienced quite a number of difficulties, particularly because of weak establishment and monitoring, poor training, some repayment problems, limited investment initiatives in successive credit cycles, and income-generating activities being harmed by natural calamities or security problems. Some of the greatest problems of repayment were with richer households rather than poorer ones (Ministry of Agriculture, 1994). Poorer families tend to use loans more for income-generating activities, but if for some reason those fail they may find themselves in even greater difficulty. Sometimes such people will use loans to clear or reduce older debts. Quite a number of farmers tend to use parts of their loans for immediate food purchases where they have a shortfall.

Several “rice banks” have been established and have been popular, but have not always been well-managed (see Bosgra, 1994). These rice banks accumulate and store paddy owned by the producers, enabling them later in the year to draw on stocks for consumption or seed without incurring the kinds of financial loss that would normally occur in post-harvest, low-priced sales, followed by much more expensive “buy-back” later in the year. These have helped with short-term food shortages but have not been so useful where the shortages are chronic.

In rural areas where credit schemes are operating, it has been estimated that about 10 per cent of the population is bypassed by such schemes “because they are outside the system or unstable in the community” (Ministry of Agriculture, 1994). This group is likely to include some of the poorest and most food-insecure families. A specific analysis of how food-insecure families interlink with credit schemes does not appear to have been undertaken, and certainly hardly seemed to appear in the September 1994 Rural Credit Seminar organized by MAFF and some NGOs to review developments in rural credit. Subsequently, in 1995, a Credit Committee for Rural Development (CCRD) was established to help co-ordinate rural credit policy.

◆ 3.8 Market Sources of Food

Besides the urban population, many rural people are also increasingly dependent on purchases for more of their food supplies (see UNICEF, undated a).

Before 1975 the food marketing system operated largely on market principles, but with some degree of government involvement, particularly in the rice trade (see Walker, 1961). Under the government of Democratic Kampuchea (1975-1979), the emphasis was on local self-sufficiency in rice production and consumption, with surpluses all strongly controlled by Khmer Rouge structures for supply to the much reduced numbers of urban workers, officials, police and soldiers, and for export. Many former private traders were killed or fled the country. Upon coming to power in 1979, the PRK government allowed the food marketing system to function very liberally, largely because of the severe food shortages in many areas and the slow arrival of much food aid. Gradually, however, most inter-district trade in paddy and rice was taken over by parastatal trading companies, although some private trade in rice and other products continued, particularly in rural areas. Pressures were often applied to farmers to sell at least some of their surplus to government structures, but this was only marginally successful (Lando and Mak, 1991).

The Ministry of Commerce of the PRK created parastatal companies that had monopoly control of the buying and selling of all agricultural produce in Cambodia. Of these, KAMPRIMEX and KAMPAGREXPORT dealt with the marketing of food crops. KAMPRIMEX was the food company responsible for the marketing of paddy and rice only. Until 1991 it held the monopoly of the rice/paddy trade. KAMPAGREXPORT dealt with the marketing of agricultural produce other than paddy and rice, but not of rubber. Besides rice, the government also controlled maize, beans, groundnuts and a few other crops. Meat, pork, beef and poultry marketing were also regulated. The only non-regulated produce was vegetables and household fruits (e.g. mango and banana).

Most crop marketing transactions were between producers and the state. To ensure the collection and distribution of paddy and rice, parastatal food companies were set up in all the provinces. They were responsible for buying paddy and rice from farmers within the province, and selling rice primarily to government staff in their respective provinces. Any surplus above the rice needs of the province was transferred to KAMPRIMEX.

In the late 1980s, the state introduced restrictions on rice trade across administrative boundaries at all levels. To take rice out of a village, traders had to acquire permission from the local authority. This restriction was aimed at frustrating private marketing activities and forcing farmers to sell their products more to the state system. Farmers were expected to sell their rice/paddy to the commune authority with the quantity fixed by the latter, after the stock of paddy had been inspected at the farm level. People also sold some rice on the open market, where they got a better price.

Strong competition gradually developed between the parastatals and private traders to purchase rice and other food crops. Already by 1987 the public sector rice marketing system was experiencing difficulties, and private trade had expanded considerably. The state system neither provided incentives to farmers to expand their production nor guaranteed food supplies to consumers at prices they could afford, but did provide subsidized food to the military, police and civil servants.

The growth of the private marketing system, linked with the weakening of Communist bloc support in 1989, led to the liberalization of the marketing system in that year, although some direct state participation remained. Following the signing of the Paris Peace accords in 1991 the State of Cambodia rapidly liberalized the economy in 1992. Everyone was then entitled to buy and sell, to process, store and transport paddy and rice. KAMPRIMEX's share of the market rapidly declined, but its intervention in the marketing system was still seen as necessary to provide a certain degree of support to food producers and food consumers. Since the formation of the current government in 1993 this liberalization has continued substantially. The state structures that were involved in food supplies and food rationing before now play a very minor role.

The driving force of private food marketing is usually profit maximization, and food security concerns rarely, if ever, enter in. If traders can make more profit from items other than basic foods, they will. If they can also control particular markets, they will. To date, analysis of the structure and functioning of the different Cambodian food marketing systems since 1993 has been very weak, and does not allow adequate analysis of the impacts of marketing on food security, particularly in rural areas. The numbers, types and capacities of the intermediaries, their resources and the degree of competition between them are poorly understood. Sometimes the systems are seen as being highly competitive with limited profits on basic foods. Others see merchants operating more as cartels (see Arace and Tan, 1994; Be and Ros, 1993). The truth and its complexity are far from being unravelled, but a recent study (Cameron and Twyford-Jones, 1995) suggests that rice marketing in Cambodia is highly fragmented, milling efficiency is poor and prices are inconsistent.

A significant proportion of traded rice and other food crops appears to change hands within local areas, and does not move out of the area unless there are easily accessible urban markets nearby. These local-level transactions and commodity flows are poorly understood, particularly in relation to household food security and their interlinkages with external markets.

Data on the ways in which prices are determined at the rural level, and marketing cost and price formation data for different products are also very weak. Marketing costs — particularly ones for transport, risk related to

insecurity, paying “unrecorded tax” (“road-block extortion”), product perishability, and transportation of live animals for consumption — seem to have a significant impact on food product movement and marketing, but these cost structures are still poorly known.

Rudimentary price data analysis, undertaken without reference to marketing structure and operations, indicates that retail food prices in Phnom Penh over the September 1993 to August 1995 period have been comparatively stable for rice (except for a substantial increase in November/December 1994 following the poor harvest), fish, beef and pork, but with greater fluctuations in fruit and vegetable prices (see Tickner et al., 1995). Rises in rice prices have been due partly to devaluations of the riel, but even then rice prices have increased in dollar terms. Rice prices are usually lowest in January and rise during the year to peaks in November and December. Seasonal variations in retail prices are not as great as seasonal variations of farm-gate prices. Provincial price data are of limited reliability and currently appear contradictory (see Tickner et al., 1995; WFP-Cambodia, **Monthly Newsletter**, June 1995). Data from CDRI sources for the period July 1994 to June 1995 suggest substantial variations in basic food product prices in different provinces as well as price fluctuations within each province (see also Cameron and Twyford-Jones, 1995). This suggests that market integration in the provinces is comparatively weak. In some provinces, such as Ratanakiri, retail rice prices are higher than Phnom Penh, but in other provinces they are usually below Phnom Penh prices. In some areas the high cost of marketed food products may be contributing to food insecurity. More recent price analysis has indicated that from May to December 1995, at least, the index of retail food prices increased more than the general consumer price index (Kannan, 1996:19).

Cambodia is part of a regional market for rice, with considerable flows in and out of the country. One study of Cambodian import/export parity prices for rice in relation to Bangkok prices (Cameron and Twyford-Jones, 1995) indicated that over the 1992 period and up to March 1993, Phnom Penh rice prices were generally below export parity prices, and that since March 1994 they have generally been above import parity prices, but there is not a close correspondence between local prices and parity prices. Some observers have suggested that the level of consumer prices in Cambodia, particularly in urban centres, is higher than in neighbouring countries, but this still remains to be clearly demonstrated (Kannan, 1996:18).

Certainly, the poor state of the transport infrastructure, particularly of roads, has contributed to greater transport costs. During the last two years substantial resources have gone into the rehabilitation of the national road network, and to a lesser extent into feeder road rehabilitation. Nevertheless, more detailed knowledge of how the development of national and feeder roads affects local food marketing and food import penetration to rural areas would help establish the comparative utility of this type of investment from the point of view of food security. One study undertaken in June 1994 by the ILO (see Shone, 1994) indicated an increase in traffic, prices, employment, land values, access to services, and a general reduction of food deficits of local households. It did not provide, however, a clear picture of changing trade patterns or impacts on particular groups in the local community.

It would appear that some food imports are disrupting traditional consumption patterns as people purchase nutritionally less-valuable foods, such as highly packaged and processed foods that are more expensive than local foods, but more tempting. In some places such imports are also undermining local production of substitute items. In late 1993, 13 per cent of mean rural expenditure on food was on “dairy products”, “miscellaneous foods” and “other food products” (NIS, 1994), which already shows the role that some other food products play in the rural diet. It would appear that road-block and waterway-block extortion and insecurity still play an important role in elevating local marketing costs and limiting market supplies within certain areas.

A crucial factor determining the extent to which people rely on the market for their food supplies is their purchasing power. The Socio-economic survey (1st round) undertaken in October-December 1993 (NIS, 1994) indicated that 64.0 per cent of rural expenditure was on food, compared with 45.1 per cent in Phnom Penh, and 39.5 per cent in other urban areas (see table 1). The mean household expenditures for rice and noodles as a percentage of total food expenditures were 14.3 per cent for Phnom Penh, 16.7 per cent for other urban areas, and 23.4 per cent for rural areas. The mean household expenditures on meat, fish and eggs, as a percentage of total food expenditures, were 36-37 per cent; 17-18 per cent of total food expenditures went for fruit and vegetables. The mean monthly household expenditure was 882,465 riels (US\$ 359) in Phnom Penh, compared with 637,989 riels (US\$ 260) in other urban areas, and only 240,298 riels (US\$ 98) in rural areas, where of course the rural population produces more of its own food. The lowest decile of rural households by expenditure only spent on average 94,438 riels (US\$ 38) a month, compared with 162,525 riels (US\$ 66) in the lowest decile in Phnom Penh and 109,431 riels (US\$ 45) in the lowest decile in other urban areas.

What the published analysis so far does not do is show the expenditure patterns on food of households in the lower deciles of expenditure, which would give greater insights into food consumption patterns of some of the poorer sections of the population and the extent of their food supply. There are no reliable data on income distribution and income trends to relate to expenditure and price trends, and to allow the effective measurement of trends in purchasing power. There are now various consumer price indices (CPIs) (CDRI, 1995). Since September 1993, which caught the tail-end of the election period when instability caused prices to rise, general and food prices in Phnom Penh dropped in the first half of 1994; rose sharply in October/November 1994; dropped again to be approximately where they were in September 1993 by May 1995; but began to rise again in July 1995. This indicates that at least urban consumer prices have not been inflationary. Provincial data on consumer prices show similar trends, but are more variable and sometimes more unreliable.

If such data could be correlated with household type they might afford a better indication of which types of household are the most food insecure. Such analysis would be more useful in the urban areas, where there is a greater dependence on purchased food. Seasonal differences from the NIS survey data would also probably indicate the extent of seasonal fluctuations in food supply. Unfortunately, the way the NIS data were analysed in the first round did not give a very reliable picture of income, making it difficult to assess the purchasing power of particular categories of household.

◆ 3.9 Nutrition, Food Safety and Intra-Household Distribution of Food

As in many countries, lack of knowledge of nutritional aspects, food quality and food hygiene contribute to food insecurity at the personal level. A survey of four different areas of Phnom Penh (Stone et al., 1989) showed that in cases where children were thin and underweight, this correlated with low levels of maternal education and low daily food expenditures, as well as with a high proportion of mothers working outside the home, thus potentially reducing the time devoted to child care. One study of a limited sample of mothers of malnourished children (Po, 1994) was very inconclusive on the characteristics of mothers with malnourished children, but indicated that malnourished children can come from all socio-economic groups. The most significant factors appeared to be family size, infectious diseases in the family, nutritional ignorance and low literacy.

In a number of countries it has been found that for various psychological, social and cultural reasons, different members of a household receive a disproportionate amount of food in relation to their needs. In a number of cultures women and girls receive less food than men and boys in relation to their needs. Sometimes this is due to nutritional ignorance, but often it relates to power relations within the household and long-established cultural norms. No particular study of this in Cambodia appears to have been undertaken.

There is a strong cultural tradition in Cambodia against feeding colostrum from the mother's breast to new-born infants. A UNICEF study showed that 76.4 per cent of mothers in their sample did not provide colostrum to their new-born children (UNICEF, undated a). The feeding of colostrum to new-born infants gives them considerable health benefit in later life. The poor nutrient content of weaning foods was also found to be a problem, although this appears to be more a consequence of nutritional ignorance rather than a specific distributional problem.

Often children who are ill receive less food. Even in the period of recovery from a particular illness many children are often only fed rice soup in small proportions at a time when they most need balanced food for adequate recovery. Rice soup would not provide all the nutrients they need. The synergy between illness and malnutrition, and the need to enhance food security via the provision of non-food inputs, particularly health care, sanitation, water supplies and education (Haddad et al., 1995) has recently gained greater prominence, and is being increasingly recognized in Cambodia (MoP, 1995). What is not being looked at in Cambodia at present is the impact of certain diseases of individual members of a household on the development and food security of the household unit. Diseases such as tuberculosis and malaria, which are frequently found amongst adult income-earners in Cambodia, have a considerable impact of their households, and subsequently upon the capacity of the household to sustain and feed itself, regardless of the issue of medical costs.

In some households it is also a belief that pregnant women should consume less. Otherwise they run the risk that the growing child inside them will become too large and they will have a difficult delivery. The UNICEF study found that 34.5 per cent of mothers from their survey had restricted their diet during pregnancy

(UNICEF, undated a). This can weaken both the women and their as yet unborn children.

In periods of food shortage the communal pot usually receives reduced portions, or rice soup is consumed instead of rice, but a systematic redistribution of food to particular household members is generally not undertaken. Nevertheless, it has been observed that women and older people may often sacrifice some of their food for the men or older children on the assumption that their needs are greater, and that having slightly more food will enable the latter to work better. Children will often try to supplement their food supply by scavenging in these circumstances.

It has also been observed that people will often sell other higher-value food crops in order to purchase more rice. The propensity to seek rice for feeding suggests unsatiated hunger, which rice satisfies for a short time better than some other foods. The nutritional value of some fruits, vegetables, eggs and meat does not always appear to be recognized, and accordingly some of these products enter less into consumption patterns than would be recommended, particularly at certain times of the year.

An additional cause of concern that contributes to illness is food safety. Hygiene and safety controls on food sold in markets and eating establishments, and even on processed foods, are currently very weak in Cambodia. An increasing problem is that some imported processed foods, particularly ones that have entered the country illegally, are either past their sell-by date or are in some other way deficient, but are still pushed onto the Cambodian market, thereby putting at risk people's health, particularly that of children.

◆ 3.10 Social Structures and Social Support

The first to be concerned about food insecurity are, of course, people and households that directly experience it, of which there are many in Cambodia. The second to become concerned with it are usually the relatives, neighbours and acquaintances of such people. These people, because of the social bonds that exist, often feel some moral compulsion to help the food-insecure. Others may come across people who are hungry and malnourished in their daily lives, as for example when confronted by beggars on the street. Many may not do very much to help beyond a petty donation, but they may be made aware of the existence of food insecurity and the lack of social support in their society.

In many countries the first line of recourse for an individual or household in food-insecure circumstances is to seek help from others, often relatives, friends and neighbours. Most societies have developed a social structure and social bonds, and often a social philosophy, that motivate people to try and alleviate the distress of food insecurity in their immediate vicinity, and to some extent in the wider society. Sometimes their responses will be spontaneous, but if food insecurity is a regular problem in the society, more organized responses are likely to ensue, involving local community organizations, local government or humanitarian agencies. Quite often more firmly established governments will create regular national support structures and insurance schemes to alleviate food insecurity.

In Cambodia all these forms of social support have existed in the past, but many of them have been severely weakened during the last 25 years. Under the Khmer Rouge government (1975-1979), there was a concerted effort to undermine family and other social supports so that all “support” (and power) would be channelled through the politico-military structures. Even during the 1980s state structures were given primordial importance in considerations of food security, above familial and other social support systems, although a number of measures in agricultural development were aimed to ensure a certain capacity of food provision by every household. These approaches, along with continued war and instability, have had a significant negative impact on autonomous social structures.

Many families have been fragmented and weakened by death and separation. Families that had existed for generations with wide extended family networks that had been a major contributor to overcoming short-term food insecurity in certain households have been broken apart. Some have been able to re-establish linkages since 1992, but where separation has been long and substantial, rebuilding family cohesion has often proved difficult. Although initial support was often given to recent returnees by family members, this has not always been sustainable. One recent study found that “the support offered by the relatives was not consistently strong. Sometimes the support was not sustained after an initial period. Sometimes it was refused completely. Only occasionally was it significant in assisting the family to become economically self-sufficient” (Davenport et al., 1995:163-164).

Many families have been weakened by a reduction in the number and availability of potential care-givers and income-earners remaining in a family. Some supports were provided by government during the 1980s. For example, pre-school education facilities were arranged, which partly liberated adults for income-earning activities while offering some form of child-care, however limited. Since 1991, quite a number of such supports have been eliminated or reduced. As a consequence, many children are growing up without adequate care or direction, with resultant negative consequences on their behaviour and social integration.

Some other manifestations of social disharmony are: increased violence and cruelty in the family, mistrust, increasing alcoholism, more separations of family members, less stable male-female relationships, over-reliance of some people on others, passivity and attitudes of hopelessness, extreme individualism, disrespect for law and other people, increased corruption, and a lack of preparedness to help anybody beyond those people known closely.

Partly as a consequence of some of these attitudes and developments, other local community support structures are weaker. Even in the 1960s, no single pattern of community development was found (Delvert, 1961; UNICEF, 1995) and groups were often formed for specific tasks, but dissolved after the task was completed. Organized village life was often non-existent, and local initiatives usually came from a fluid grouping of leading families in the village, variously co-ordinated by elders, the *achar* (financial administrator for the pagoda) or monks. In many areas rural families lived individually, often spatially dispersed, and cultivated their own plots. Accordingly, there was not much incentive for more organized community structures. Many rural Cambodians were averse to too much structuring of their time and activities. This aversion has increased

following the experience of forced meetings under the Khmer Rouge government and efforts by the government to promote collective organizations during the 1980s.

As a result, community organization is currently weak in Cambodia. A number of NGOs have started to try to organize community structures, but often these initiatives do not benefit the poorest in the community (see Davenport et al., 1995). It appears that some Cambodians are prepared to go along with NGO efforts at community organization because of certain material advantages, but it is unclear how sustainable such structures are, or how beneficial they are for the most food-insecure households. Nevertheless, informal networks of communication and discussion are established in many villages, particularly around religious and social events and activities (see Davenport et al., 1995).

Prior to the 1970s, community leadership, insofar as it existed, came more from leading members of the more established families in the area. The older monks and *achars*, respected for their religious standing and their experience, also sometimes took a lead. Many such leaders died under the Khmer Rouge. During the 1980s the government appointed group and village leaders in the rural areas; these are still often in place. Respect for them is mixed, and they are often strongly associated with the former government, whose members now constitute many of the Cambodia People's Party (CPP). In some areas of the north-west local elections were conducted in 1995, and it is envisaged that local elections will be conducted more generally in 1996. In some places there are fairly active school parents' associations and *wat* (pagoda) committees, with varying degrees of organization and stability.

The Buddhist community structures have in the past played an important role in providing some social supports that help alleviate food insecurity. Theravada Buddhism, unlike Mahayana Buddhism, puts greater emphasis on monks obtaining their food from undemonstrative begging, rather than producing it. Both forms of Buddhism tend to eschew meat consumption, but both also recognize that for balanced physical and spiritual development certain sustained levels of food are required.

The pagoda can and does often provide direct food relief to elderly people and orphans who live in the pagoda, as well as to adolescent males who come into the pagoda to live for periods of time, usually out of tradition but sometimes also because their families have difficulty feeding them. Monks can and sometimes do also play a role in dispute resolution, social initiatives and organization, and social supports of different kinds that can include food security elements. Many monks were killed under the Khmer Rouge. In a number of areas there is not the same respect for monks that there once was. Today many monks are young and lack the depth of understanding of Buddhism that some older monks formerly had. Some monks have a certain ambivalence about being involved in social activities as opposed to withdrawal from the demands and distractions of daily life.

One aspect of Cambodian social relations that is still prevalent, however, is a tendency towards the formation of "patron-client" relationships. These pervade many aspects of social relations, and certain people try to establish themselves as "patrons" to others. Often their patronage links will not be exclusive; "clients" will have a number of patrons for different things and sometimes for

the same type of thing. Clients are also inclined to change patrons if they think it to their advantage to do so. This brings a certain instability into the patronage system. The provision of food, particularly in time of need, can be an integral feature of such systems. The tendency to organize empowerment through patronage systems is a regressive concomitant of the weakness of democratic structures at all levels of society. With the development of parliamentary democracy in Cambodia since 1993, there has been an increasing trend of many members of Parliament, political parties, and even the monarchy, to try to strengthen their political positions by establishing patronage systems. Integral to this has often been the free distribution of food by patrons in particular areas to try to gain support and favour. These free food distributions have sometimes caused difficulties in areas where agencies have been trying to establish food-for-work schemes (see **Phnom Penh Post**, Vol. 4, No. 13, 1995). To date, however, these patronage systems have not been well studied in Cambodia.

People are also still wary of articulating their interests in any organized way, because in the past such activities were rapidly suppressed or resulted in leaders being victimized or even being killed. Accordingly, people tend to be very circumspect about how they attempt to advance their interests, and this reinforces quieter “patron-client” type approaches.

A consequence of these psychological and social disruptions at the local level is that the kinds of social supports that habitually are the first line of defence for food security are not always in place. Accordingly, some people can more easily be marginalized in the community and not have the supports they need from within the community to deal with food insecurity. Some women, including widows or deserted wives, as well as some returnees and people with disabilities, have been stigmatized by the communities in which they live. The withdrawal of social supports from family or members of the community contributes to the difficulties these people have in securing adequate food and sustainable livelihoods. One recent study of returnees (Davenport et al., 1995) showed how significant the establishment of social relations with the local community can be in their success or failure to become re-established economically. Not knowing where the next food is coming from also contributes to significant psychological stress. This is particularly so for single-headed households where one person, often a woman, has to make all the decisions and manage everything alone.

The way in which these social systems have an impact on household food security in Cambodia has not been systematically studied, nor have most agencies concerned with food security undertaken serious assessment of household food security risk and response, or of the way in which local social structures respond to food insecurity.

4. FOOD POLICY AND PROGRAMMES

As indicated in section 1, numerous international aid agencies commenced operations in Cambodia during the early 1990s. Recent years have also

witnessed the rapid growth in the numbers of NGOs working in the country. Following the elections of 1993, a new coalition government assumed responsibility for economic and social development. In the sub-sections that follow, attention is given to how government, large international organizations, and international and local NGOs have addressed food security in recent years, and with what effect.

◆ 4.1 Government Policy and Programmes

The concept of **food security** was developed in a structured way during the mid-1970s, at a time when Cambodian society was cut off from the outside world. As a result, Cambodian governmental approaches to it are relatively recent. This is not to say that the Cambodian government was not concerned with aspects of food security during the 1980s. It was, but it was not always articulated as such, and no coherent overall food policy was developed. In section 2 it was pointed out that previous governments had established food procurement and rationing systems, controlled trade and monitored overall food availability in order to help guarantee food supplies. Successive land redistributions were also partly intended to give much of the rural population the prime means to produce enough food for themselves. Some of the collective forms of production that were encouraged during this period were also intended to help different types of household to secure enough food for themselves, backed up by a more collective support system (see Vickery, 1986; Mysliwicz, 1988; Curtis, 1990). Support was given to nutritional aspects of health through a system of maternal and child health, which operated 31 RINE (Rehydration, Immunisation, Nutrition and Education) centres and worked in the eight most densely populated provinces that had a monitoring system for child growth. This system has largely been defunct since about 1990, as funding for the centres dried up abruptly.

Limited though the means of the government were to promote food security, food availability in the country steadily improved during the 1980s to approach national self-sufficiency by the late 1980s, and nutritional status also appeared to improve (MoP, 1995). Neither the constitutions of this period, nor the constitution of September 1993 specifically mention a commitment to helping to assure or to guarantee an adequate food supply to the people as a basis for their healthy development (National Assembly of Cambodia, 1993).

The present government, like the previous one, has continued to display considerable concern for questions of food security and has adopted measures not only to address immediate food insecurity problems, but also to take preventive measures, strengthen agricultural productive capacity, and also secure adequately priced food availability in the event of shortfalls.

In its dealings with the FAO in 1991 the government expressed concern as to how it might improve its capacity to secure the availability of adequate and stable food supplies and to improve people's economic access to food supplies (Muller, 1992). The Cambodian government also wished to enhance its food information and early warning system capacities. At that time there was no particular government department with a responsibility or capacity for food supply monitoring or comprehensive food policy formulation. That has remained the case until the present day.

The ministries of Agriculture, Commerce, Rural Development and Health have been involved in different ways with aspects of food security, but no overall food policy has been developed, nor government structure put in place to formulate it. During 1994 an “interministerial commission for food supply stocks and paddy prices” operated (EIU, 1994). Discussion on food security was an integral part of the Agricultural Development Options Review (ADOR) in 1994 (ADOR 1, 1994; FAO, 1994; ADOR 2, 1994). ADOR was a two-phased assessment of agricultural development and its potential in Cambodia, financed by the FAO and the Asian Development Bank for pinpointing preferable policy options. The First Phase (ADOR 1) provided an informative background and set the stage for the Second Phase (ADOR 2), which brought together relevant actors in focus groups to deepen discussion and draw out feasible alternatives. However, a clear policy from that exercise has still not emerged in many areas of agricultural development or food policy. No interministerial executive committee exists on food security, and usually considerations on food security are only presented to the Council of Ministers or the National Committee for Agriculture and Rural Development (CARD) on an ad hoc basis. Food policy decisions are currently taken by the Council of Ministers, with back up on specific aspects from individual line ministries.

No particular ministry has had a well-designated responsibility for food security, although certain aspects fall within the responsibility of a number of different ministries. A National Nutrition Workshop was organized in June 1995 by the Ministry of Planning, with strong support from UNICEF and WHO. Following that workshop, proposals were prepared for the establishment of a National Food and Nutrition Committee (NFNC) (*Kanakamaka Cheat Sbeang Noueng Aharoupatham*). These proposals were due to have been put to the Council of Ministers in November 1995 to establish a nucleus for the monitoring of the food system and the formulation of national food policy. The NFNC aims to have a ministerial sub-committee, backed up by an interministerial technical committee and supported by a small secretariat in the Ministry of Planning. The specific responsibilities and objectives of this sub-committee are still being worked out, but it may alleviate the spawning of a number of small committees on different aspects of food security that appeared to be emerging. Under the Civil Service reform process, ministerial structures were due to be more definitively established by the end of 1995.

In December 1994 Provincial Rural Development Committees (PRDC) were formally established in Cambodia. These interministerial committees are to coordinate rural development at the provincial level, collect relevant socio-economic data and “provide indications of poverty levels amongst villages and districts” (UNDP/OPS, 1995). It is intended to create similar planning and coordination structures at the district, commune and village level. These structures, if given a clear brief regarding food security, could be the main and most appropriate government vehicle at the local level for improved food security monitoring and response. Under the Civil Service reform process the reform and restructuring of provincial administrations is due to be completed by the end of 1996 (KoC, 1995).

The overall policies of the current government have primarily focused on macro-economic stability, state restructuring, public sector divestment, private sector development, sectoral rehabilitation programmes and human resource

development (KoC, 1994a; 1994b). Since food security does not come under one specific sector and is not usually considered fully in macro-economic appraisals, it enters with difficulty into these policies and programmes. Nevertheless, a concern on the part of the government to improve food security, particularly for certain vulnerable groups in society, is evident.

The food security focus in government policies was initially placed on poverty alleviation (particularly in rural areas), development of agricultural production (particularly of rice), household-level food production schemes, and primary school feeding programmes (KoC, 1994b). Adverse climatic developments in late 1994, however, seriously weakened national food availability and strongly contributed to temporary inflation. Consequently, in an effort to retain rice in the country and keep rice prices down, measures were taken to ease basic food imports, particularly of rice, and to continue to restrict rice exports. Efforts were also made to stimulate employment generation so as to enable poorer people to increase their purchasing power in order to overcome their food deficits, particularly in areas pinpointed as suffering most from these agro-ecological developments, and at the “lean” periods of the year.

As a result of these developments, government policies have put greater emphasis on food security and spelled out a little more explicitly what they mean by “food security” (see KoC, 1995). The revised focus is on “eliminating hunger”; encouraging employment generation (particularly in employment derived from rice production); liberalizing food trade further (particularly of rice exports); encouraging cost-efficient food production (particularly in rice); encouraging private-sector involvement in food marketing (no government involvement or very limited involvement); while also excluding subsidy provision for inputs and credit.

These general policy positions are still comparatively vague in some instances, and have not been linked with clear strategies on how some of them are to be achieved. Some appear to be rather defensive statements regarding certain actions and policies that the government will **not** take. They reflect contradictory attitudes as to the participation of government in food marketing in the context of food security. This probably reflects differences of position within government itself and between the three major political parties and different factions within each, but the consequence is that the policies are still not always clear. As has also been pointed out, “supporting these initiatives will be the introduction of policies and actions aimed at increases in farm production and in processing and marketing activities. This will take time” (KoC, 1995). The sustainability of reform over time appears to be becoming a more important consideration in government thinking. Further, the government is aware of its limitations and still expects populations to exercise greater self-help. In February 1995 the Minister of Rural Development said “the government is willing to assist the rural populations, but they will be expected to help themselves” (MRD/UNDP/UNOPS, 1995).

Although some policies and programmes have clearly been developed with food security as a major objective, many have not. A number of policies and programmes in relation to agriculture, employment generation and welfare relief have had food security objectives. Many others that are likely to have an impact on food security, such as transport policies, investment policies and tourism policies, have not had this impact considered systematically in their

formulation. Others may not have any direct impact on food security, but by their use of limited resources or their impact on the macro-economy, these policies and programmes still have an indirect impact on food security outcomes.

Most direct foreign investment since 1993 has been in tourism, manufacturing, urban and national transport infrastructure, construction and construction materials, and oil exploration. Only 3 per cent of the total investment approved over the August 1994 to May 1995 period was in agriculture (CDC/CRDB, 1995). Many of these investments are of very marginal benefit to rural communities. There is a general commitment to encourage labour-generating industries and investments, but it is not clear if this labour generation (estimated eventually to total 41,000 new jobs from the investments over the August 1994 to May 1995 period) particularly help food-insecure groups, and they may well accentuate rural-urban migration.

The only foreign direct investment in food processing in Cambodia over the 1990-1994 period (Chhay, 1994) has been in soft drink, beer and sugar refineries, none of which particularly helps nutritional needs in the country. The investment in sugar refineries may actually have a detrimental effect on the palm sugar industry in Cambodia, which is an important household income generator in certain regions. During the first five months of 1995 direct foreign investment in agro-industry and food processing increased, but a major part of it was in luxury foods like ice-creams and urban processed foods. A joint venture with Singaporean investors in rice production on 3,000 hectares in Takeo, and some silk and cashew-nut production, constitute the main agricultural investments. Approval of a number of larger investments takes place in the Council of Ministers, rather than the CDC. All agricultural development foreign investment proposals are directed solely to the Minister of Agriculture. Efforts have been made to ensure employment generation in these investments and to consider the environmental effects of some of them, but their likely impact on other sections of the community or food security has hardly been considered.

Although policy statements are beginning to be made on a number of economic concerns, including food security, the strategies and programmes to go with them often take a long time to formulate. For all the aspirations, government capacity to implement is currently very weak in many instances, and many government departments have great difficulty operating effectively. Conflicts in approach between representatives of different political parties in government are inhibiting clear policy approaches. Moreover, petty and not so petty corruption are manifest in a number of ministries and this has distorted the implementation of programmes. There is inter-ministerial rivalry over resources (something not peculiar to Cambodia, but particularly acute in present circumstances). Inter-ministerial co-ordination at the executive level over food security is still weak but, it is hoped, will improve if the NFNC is solidly established.

Civil service finances are still currently in serious difficulties. In comparison with the costs of living, civil service salaries are low and inadequate, and accordingly moon-lighting is a standard practice which can leave specific departments comparatively inoperational. Also, current civil service expenditure goes primarily on salaries, leaving little for the equipping and maintenance of individual departments. This hinders their operations, particularly in rural areas, where lack of transport or reimbursement for transport costs can inhibit the

daily operations of rural, agricultural and health civil servants. Pockets of greater efficiency can be created by supplementary support from external agencies, but this is often tied to the duration of the support and is not sustainable over the longer term. During the 1980s, government salaries were low but civil servants had a number of benefits, including rice rations. These were cut in the early 1990s and salaries were increased, but the high inflation of the UNTAC period severely undermined their value, and the government has not been in a position to increase them to a reasonable wage. The IMF has wanted the government to keep tight control on government expenditure and reduce the number of civil servants, but the prime cause of the situation lies in the inflationary impacts of the UNTAC period and the present weakened fiscal base.

The current restructuring of the civil service has left many ministries temporarily uncertain of their role and responsibilities in the future. The role of food security activities and their structuring in these ministries has not yet been clearly worked out. Many people have inappropriate skills for developing effective food security policies and programmes. The inter-linkages between the state and the private sector over food security issues are also as yet poorly worked out. Efforts are being made in relation to policy formulation and programme formulation, but often these are dominated by the availability of resources, which in turn may be influenced by external donor interests. During 1994 and 1995, a number of ministries tried to advance general policy formulation and specific programmes. These were seen as necessary for appealing for finance to international donors to enable them to operate. Cambodians in government are well aware that in the past foreign donor countries have been restrictive in whom and what they will support, and that the current global state of aid financing is unstable. Accordingly, they are keen to get on any bandwagons while they are still there. The capacity to monitor and evaluate policy and programme impacts, or development impacts on their particular sectors, is still rudimentary in most ministries. All the above factors contribute to a weakened participation of the state in helping to guide and support the development of Cambodian food security. Further information on the policies and operations of specific ministries is provided in Appendix 1.

◆ 4.2 International Donors and Large International Organizations

The presence of large international organizations in Cambodia is a comparatively recent phenomenon. Under the Khmer Rouge régime such organizations were excluded. During the 1980s international sanctions against Cambodia generally prevented such agencies from establishing a presence inside the country, although some were active in the refugee camps in Thailand. A UNDP Liaison Office was established in 1989, and over the 1989-1992 period there were many assessments made by foreign aid organizations. Before 1991, however, the only major non-communist donor agency within the country was UNICEF, although several major donors had been channelling some finance through NGOs. Given the current weakness of the state in Cambodia, large foreign organizations are exerting a considerable impact on socio-economic developments in the country.

During the UNTAC era, when most large international donors began to appear in Cambodia, concern by donors with food security was more directed towards relief. More recently donors have started redirecting their attention to rehabilitation and development. As a result, consideration of where longer-term food security aspects fit in has gradually come more to the fore. Nevertheless, many donors are still not particularly co-ordinated over food security issues, nor particularly clear as to what their priorities and approaches are in this field. It was only in 1995 that donors started meeting on a regular, quarterly basis to co-ordinate their work on agricultural development, but that sort of co-ordination is still not developed in relation to food security. In-country donor consultations are planned in 1995 and 1996 on agriculture and rural development, poverty alleviation and food-for-work, but not specifically on food security (McAndrew, 1996:14).

Some of the approaches used by larger international organizations are similar to ones adopted by NGOs, so the distinction between the two is not always valid. Moreover, neither grouping is homogenous. The diversity of styles and approaches is large and, in addition, most of these organizations are adapting and developing their approaches. Accordingly, what is happening at one point in time can rapidly change. In 1995 a number of international organizations (e.g. UNICEF) and NGOs (e.g. the Lutheran World Service, OXFAM and Australian Catholic Relief) went through substantial processes of change in their operations and approaches. A review of the major aid donors and development agencies currently operating in Cambodia with activities related to food security is given in Appendix 2.

A number of international organizations and NGOs have tried to target particular “vulnerable” groups in their humanitarian efforts (e.g. returnees, internally displaced people, women-headed households, households with disabled adults, households with chronic illness in the family, the homeless, orphans). Many of the food-insecure households fall within these categories, but quite a number do not. It has been found that some of these categories are also too broad, and that some of the people so categorized are not necessarily food insecure. Greater differentiation of these groups is beginning to take place, but more needs to be done. Sometimes the categories are of a transitory nature (e.g. returnees and internally displaced persons), and some organizations have found that continued focus on households categorized in this way can lead to stigmatization and cause resentment amongst equally poor households in the same area. Strong efforts are still needed to help reintegrate the society, and targeting in this way can run counter to this objective.

Although many of these organizations have periodic evaluations of their activities, a number have not, often because they have been operating for only a short time in the country, and have been more intent on establishing themselves and getting their first activities underway. Those evaluations that are conducted are usually more concerned with use of finances, internal effectiveness and pre-set targets, than their impact on particular sections of the population. Such assessments are often made in standard terms, which do not always afford the types of answers that would be most useful from the point of view of assessing impacts on food security on particular groups. Organizations such as the European Union and the ILO have standard assessment methods for all their projects and programmes that are intended to measure and monitor

implementation. Although some of these may measure the impact of the project on anticipated beneficiaries (and sometimes others), they rarely include a food security impact as an integral part of the assessment. A recent Sida Evaluation (Bernander et al., 1995:12) indicated that “most of the reporting from implementing agencies consists of output reports and does not permit detailed analysis of programme impact and cost-effectiveness”.

Further, what evaluations are conducted, particularly if they are critical of earlier activities, are often kept as internal documents only, and are often not available to external organizations. Accordingly, it is sometimes difficult for other people to get a clear picture of what is happening in the operations of any one particular agency, unless they have close regular contact with it or the areas in which it is operating. All these aspects very much apply to the operations of foreign organizations in Cambodia at present. In addition, some of the larger organizations are fairly adept at their public relations and presenting what they want to have seen by the public.

Foreign donors with their own political agendas have sometimes been showing preferences for certain ministries and organizations that would not logically be the most appropriate from the point of view of either technical criteria or the responsibilities of those organizations. For example, resources for labour market analysis have been channelled through the Ministry of Education rather than MSALVA, which has responsibility for labour issues. International organizations have tended to want to continue operating with Cambodian organizations or people with whom they have previously had contact because they have worked well with them in the past, they are considered more politically in tune with the donors, or they show signs of being better organized. Some of the major donors and external financiers of the government's programmes sometimes impose fairly rigid ideologically-based conditions for their support, usually on the basis of neo-classical economic assumptions (e.g. such as trade liberalization, de-regulation, privatization and civil service restructuring). Some forms of international support to Cambodia often appear to focus more on reducing the power of the state than getting it to operate in an effective way. Often, international organizations and NGOs with a specific orientation towards aspects of food security do not indicate how they intend to transfer responsibility for their activities to Cambodian institutions in the longer term, nor have they established programmes for doing so.

◆ 4.3 Non-Governmental Organizations (NGOs)

The number of NGOs working in Cambodia increased sharply during the 1990s. During the 1980s, when larger bilateral and multilateral organizations eschewed support for Cambodia, a small group of international NGOs was active in the country. They were drawn into areas of support that were not habitually their concern, however. Because of security issues they could not operate in most rural areas, and many resources had to be channelled through government departments. Larger aid agencies, restricted from operating under sanctions, nevertheless channelled some resources through such NGOs. In the late 1980s some of these NGOs adopted an international advocacy role in drawing attention to the plight of many Cambodians because of sanctions (see Mysliwiec, 1988). Following the 1991 Peace Accords many other NGOs came into the country, and a number of Cambodian NGOs have been established.

In recent years quite a few international and Cambodian NGOs have been involved in activities linked with food security; they usually attempt to improve household food accessibility and nutritional education. Many have been involved in relief and rehabilitation supports. Some of these have been directed towards specific groups, particularly returnees and internally displaced people. In response to various disasters and major deficiencies, many NGOs have provided inputs such as fertilizer, hoeheads and irrigation pumps to help households re-establish crop production to provide themselves with food. Some have acted as local implementing agents for larger support organizations or developed approaches that have gained financing from such larger organizations. In 1995 it was estimated that NGOs were currently responsible for the disbursement of 15-20 per cent of aid to Cambodia. Unlike total aid funding in Cambodia, which to date has had 90 per cent of its funds concentrated in the Phnom Penh region, about 80 per cent of the value of projected activities of NGOs will be in provincial areas (Sida, undated:42-43).

Many are now moving more towards programmes in community development, health and education/training, or in sustainable agriculture, aquaculture and fisheries. NGO activities often assist food security by increasing or diversifying food crop production, generating income or providing credit. For a number of them, food security is not considered in a systematic way in their activities, but appears as a loosely defined concern. A number of NGOs have attempted to coordinate their activities by participating in sectoral fora. There is not one specific forum that focuses exclusively on food security, although several deal with related fields of activity such as irrigation, health, education and rural development.

Some NGOs, such as Partnership for Development in Kampuchea (PADEK), Hilfswerk der Evangelischen Kirchen der Schweiz (Swiss) (HEKS), Australian Catholic Relief (ACR), Action internationale contre la faim (AICF), Care International (CARE) and Church World Service (CWS), have specifically had the improvement of food security among their objectives for some time. Their knowledge of the socio-economic circumstances of the most food insecure families can still often be weak, however, despite initial and ongoing appraisals and studies of their target populations. Some NGOs are also looking for effective indicators for monitoring food insecurity and assessing the impact of their efforts on the food security of different groups (van Iterson, 1994; PADEK, undated; CWS, 1994). During 1994 PADEK undertook studies (Alto-Senga, 1994) and held workshops to see how the fulfilment of their food security objectives might be achieved. The only indicator identified was the "food gap" that many households have between annual production and consumption requirements, but no regular monitoring system has been put in place, and the food security objective is seen as a secondary objective to other concerns (van Iterson, 1994). There is an intention to try to include indicators on food security in their Project Monitoring and Evaluation System (PMES) (PADEK, undated). In October 1994 CWS undertook a baseline survey in Kandal province (CWS, 1994), that partly focused on food security issues in their questionnaire, and the food gap of different types of household. Their questions also related to how people tried to overcome their food insecurities, but unfortunately these responses were not really analysed.

One type of activity more specifically aimed at food security objectives has been the introduction of “rice banks”. No systematic analysis of all rice bank schemes has been undertaken, but, as indicated above, these have sometimes experienced management difficulties. NGOs have also experienced difficulties in some irrigation and credit schemes (see section 2).

Some NGOs have engaged in nutritional surveys in the areas in which they operate. Helen Keller International (HKI) specializes in survey work, training and support in relation to vitamin A deficiency and other micro-nutrient deficiencies, and has been operating in the country for several years. A number of such NGOs are engaging in participatory and rapid rural appraisals, which often touch on aspects of livelihood, employment and food supplies.

Several foreign NGOs appear to have strong biases against working with government departments and only want to work with community groups, even if these do not currently exist. As pointed out in section 2, there are a number of psycho-social factors inhibiting the development of community institutions in Cambodia. These have not always been fully considered when external ideas of how to set about community development have been introduced. One consequence, as World Vision International (WVI) has experienced in Kandal, can be that these processes tend to take much longer than anticipated, if achieved at all. Many of these organizations talk about the sustainability of their activities, but often this sustainability has still not been put on a sound footing. Some NGOs, such as HEKS, however, are already planning their withdrawal once the Community Development Councils (CDCs) are more established.

Certain NGOs previously involved in rural projects and rural extension and training work on a small scale, such as OXFAM or ACR, are currently ceding some of these types of activity to multilateral and bilateral organizations that are bringing in larger resources. The ADOR team (FAO, 1994) actually suggested that NGOs should move out of some of these areas of agricultural development and leave them to the larger professional organizations. Some major donors, such as the European Union (EU), appear to be moving in this direction. Several NGOs, such as the Lutheran World Service (LWS), that had been involved in projects directly concerned with government departments, are now moving more into working primarily with local communities. Some NGOs, such as OXFAM or the Overseas Service Bureau (OSB), have been tending towards advocacy roles. OSB has been supporting food security considerations, developing informal social networks and helping to resolve disputes over land tenure (see Davenport et al., 1995).

In recent years there has also been an increase in the number of Cambodian NGOs, as well as of grassroots organizations. The latter include, for example, farmer associations that operate locally in order to help farmers express their needs and organize collectively to obtain their objectives. Both these and national NGOs usually have had limited resources but have been able to implement a number of small projects in different provinces, often in activities involving livestock and poultry raising, rice production, sugar-palm development, credit and community development. They are often very conscious of food insecurity amongst the people with whom they are in daily contact (see SSKK, 1995), but have not usually developed clear policies or strategies in food security terms.

5. PRIORITIES FOR AND TENSIONS OVER FOOD SECURITY IN CAMBODIA

Given both the dramatic ideological transition that has occurred in Cambodia since the late 1980s and the current political institution of power sharing, it is not surprising to find contrasting or conflicting views and approaches within the state on food security and development issues. Advocates of economic liberalization and privatization in the new coalition government do not always sit easily with the proponents of earlier approaches that emphasized considerable state intervention in the economy. Inevitably, stresses have resulted. Positions have sometimes become hardened and really imaginative options have succumbed to ideological rigidities and old conflicts. Such tensions have had an impact, too, on food security approaches and policies.

Moreover, the current weakened condition of certain state structures, and their inability to function well, means that quite often there is a wide gap between the outcomes of policies and programmes and their stated intentions and objectives. In addition, as the economy is increasingly dominated by non-accountable private capital and as the state reduces its regulatory role, its capacity to monitor and guide the nation's economic development is diminished.

Currently, also, the extent of large-scale corruption, as well as petty corruption, is such that economic developments are being distorted, sometimes with a considerable impact on food security (e.g. logging schemes, certain foreign investment projects). The scale of some of this corruption makes a number of aid efforts look paltry in comparison. When the corruption is seen to be at high levels of government and to be comparatively unchecked, it encourages petty corruption by others. In conditions where differences in wealth are great, large sections of the population are in very difficult economic circumstances and the rule of law is poorly established, corruption is likely to proliferate. The considerable squeeze on public sector wages in the context of rigid economic stabilization policies has also played its role. The larger-scale corruption may also be backed by violence, which is not far from the surface in many Cambodian shady dealings.

As a result of these factors there are currently many economic forces operating in Cambodia that are likely to have a negative impact on food security; they are led and motivated by forces and attitudes that have little concern for food security. Such attitudes include opportunistic self-advancement and get-rich-quick approaches. As it has very limited capacity to operate, the Cambodian government is currently constrained in its power to provide a countervailing force in this regard, and particularly as it is not well organized to do so. Much of the required social and humanitarian response thus falls on non-governmental and external organizations. Many Cambodian NGOs have neither the resources nor the orientation to respond. The external agencies may have more resources but often lack the detailed knowledge and understanding of the local community, and currently are poorly co-ordinated in their food security responses. In addition, external development assistance agencies operate with a plethora of approaches, often seeking to achieve quick changes in a culture where most of the people are unused to such sweeping foreign influence.

Foreign aid and the operations of many relief and development agencies have channelled much-needed resources to local areas and in some cases have played a positive role in improving food security; but many Cambodians, with their weak productive capacities, weak asset bases, poor income-earning potential and weakened social support system, are floundering to survive, and have found themselves either bypassed by external organizations or in some cases pushed in various directions.

◆ 5.1 Food Availability

From the earlier analysis it can be seen that Cambodia currently has a marginally deficit national food availability, with regional and local pockets of inadequate food availability, aggravated in some years by adverse agro-ecological developments. Some government representatives have been upbeat about trends towards national food self-sufficiency, and consider that overconcern with national food availability will soon be something of the past. Estimates made by the FAO/WFP in January 1996 put the 1995/96 rice crop national surplus at about 225,000 tons of paddy (i.e. about 140,000 tons of milled rice) (FAO/WFP, 1996:21).

Others are more circumspect. Even with the good rice harvest of 1995/96, it was estimated that 232 communes in Cambodia (out of 1,368) had chronic deficits in rice production, particularly in Kampong Cham, Kampong Speu and Kampot (FAO/WFP, 1996:23). Individual households and communities can be adversely affected in their food security by circumstances of reduced food availability, largely because of their weak purchasing power (including weak asset bases), poor income-generating potentials, weakened social support structures and market failures. Accordingly, food availability is still something to be monitored and responded to in Cambodia, but individual household food security and the livelihood systems of poorer sections of the community would appear to merit greater attention in relation to food security.

Contradictory approaches seem currently to be operating in Cambodia in relation to food availability and how best to respond to shortfalls. Some government policy makers and some foreign donors and financing organizations appear to be saying that rapid liberalization of the food marketing and international food trading system with Cambodia will solve food availability problems because the market will respond to local supply deficiencies. Hence, the argument goes, there is no need for any direct interventions by government or other organizations artificially to help food availability. It is clear, however, that some other sections of government, the World Food Programme (WFP) and certain NGOs do not believe that this is adequate. Some members of government consider that market forces currently have too many failures for this attitude to be justified. They advocate more direct intervention to help sustain certain areas and groups of people. Whereas some government officials wish to do this through a government-controlled distribution system with which they are more familiar, the WFP wishes to do it by targeting vulnerable groups and vulnerable areas and channelling food through food-for-work schemes, or direct relief-support to these targeted groups.

Neither the market-oriented nor the institutional support positions start from a particularly informed base. Knowledge of the current functioning of the food marketing system in the country is so poor that neither advocates nor opponents of liberalized marketing systems have the bases for justifying their positions, let alone getting nearer to the truth of what is happening. Those who advocate state-led interventions are still not used to having to justify and be precise about the costs and likely impacts of different types and scales of intervention, and cannot relate their propositions well to failures in the market system because they have such a weak understanding of the functioning of that system.

One area in which ideological and economic interests other than food security have recently impacted on food policy is in relation to food export policy, particularly of rice. The government has come under considerable pressure to liberalize trade and increase exports for balance of payments benefits. This pressure has been taken so far as to justify an increase in export rice production in terms of its likely contribution to employment generation and household food security. The assumption is that such a development will generate external income that can facilitate food purchases. What it does not address is who gets the benefit of these exports, and whether the income so generated benefits the sections of the population that most need it. The words “comparative advantage” are often used, and when the price of Thai white rice, 100 per cent second grade, f.o.b. Bangkok was US\$ 355/ton in August 1995, compared with US\$ 265/ton in August 1994 (FAO, 1995), the proposition sounds appealing. Unfortunately the international rice market is an unstable thin residual market and prices are known to fluctuate markedly, so what may look practical at one point in time may not be so soon after. Also, Cambodia’s neighbouring countries, Thailand and Viet Nam, are now two of the world’s leading rice exporters and would have a dominating influence over Cambodian exports by their more developed exporting system, unless particular “niche” sales can be found. In any case, potential rice exporters have not been forthcoming to date. Rice exporters have not usually been the same people as rice importers in Cambodia. Even in the 1960s, when Cambodia was exporting over 100,000 tons of rice a year, the Royal Cambodian government restricted rice exports until it was more sure of the next season’s harvest. Further, the rice export trade at that time was largely controlled by a cartel of Sino-Khmer and Chinese traders, which meant that little of the profits from these exports went to the producers (Walker, 1961). Significant rice exports could easily create shortages in supply in Cambodia that would lead to increased retail rice prices. Such shortfalls might be met by trade but the prices are likely to remain high because of marketing costs, and all the Cambodians with very limited purchasing power and small landholdings dependent on the market for rice would be disadvantaged, although a small number of larger rice farmers might benefit. There are no guarantees, nor likelihood, that foreign exchange earned from rice exports would be used to compensate rice shortages with imports of cheaper rice. Accordingly, such policy definitions need to be analysed more fully before being formulated.

Given the current weaknesses in the data base for effectively monitoring food availability, it is understandable that different Cambodian government departments would like to improve their capacity in this respect. However, the utility of introducing more highly quantitative data on certain aspects (e.g. local production estimates of rice) needs to be carefully considered if substantial weaknesses still exist in other required data (e.g. consumption requirements,

other food inputs, trade volumes, retentions etc.) It might be more appropriate to develop a system of indicators that could be implemented at the provincial and local level to alert on food insecurities in the short-term while gradually building up a more detailed, more statistically-based food information system and early warning system in a more planned way.

Furthermore, food monitoring systems are too often established without clear linkage to the analytic capacity and likely response mechanisms that can be applied in the event of shortfalls. The food monitoring, food supply analysis and food shortfall response mechanisms in Cambodia at present all need improvement, but their development needs to be integrated and synchronized. Rather than formulations in terms of a more centralized capacity for these activities, an alternative could be the development of a better provincial or regional level capacity for monitoring, analysis and response.

◆ 5.2 Food Accessibility

From earlier discussion it can be seen that the accessibility to food of individual households and communities is currently, except in certain areas, a more important issue of food security than food availability. In a number of cases household food insecurity is more temporary or seasonal, but in many it is more chronic. Most Cambodians are far from being inactive when it comes to securing their food supplies, and for those who have lived through the years 1975-1981 in Cambodia, the problems of food supply that they face today might be considered easier to handle. Most Cambodians have developed a number of strategies and responses to help them overcome their food insecurities. Up to now these strategies have not been analysed or studied in any systematic way in Cambodia, nor has their consideration been well incorporated into current food security support strategies. External agencies that contemplate food support systems for food insecure populations need first to consider how those populations themselves respond to their own food insecurity and with what success or constraints. In this way they might design more finely-tuned and appropriate interventions that build on what food insecure households are already doing to overcome their food insecurities.

Temporary or seasonal food insecurity

Many Cambodian households have mechanisms by which they have often overcome temporary and seasonal food insecurity, although the very weak asset bases of some of these households means that in certain cases they are now very stretched. This is particularly so in rural areas that have suffered from three successive bad harvests. What many of these people are looking for is some means of earning income until the next harvest and the means to grow at least a portion of their food for next year, if they have some land.

The WFP approaches have endeavoured to support these goals by food-for-work schemes, but sometimes their efforts have been limited by difficulties of targeting, the number and quality of some employment-generating schemes, problems of access and limited capacity for administering such programmes at comparatively short notice. Their efforts to minimize dependency by linking food aid to work have sometimes been undermined by free distributions of food

or “false” food-for-work schemes (see **Phnom Penh Post**, Vol. 4, No. 13, 1995). Where free food distributions have been made with an element of patronage strongly linked to them, the nature of the distribution has not always been such that the people who really needed relief received it. The WFP does recognize that some households are in such desperate circumstances that the type of help they need at the moment verges more on relief than incentive-creating support. In practice, however, it may be difficult to differentiate the really needy. If they have the means to do so, the WFP staff appear to err on the side of too generous a distribution in areas they know to be particularly weak. They are particularly handicapped in operating in some areas because of security problems. Some criticism has been expressed by other development agencies of the negative impact of short-term food-for-work schemes on the efforts of the former to mobilize local populations in longer-term, more sustainable employment-generation schemes.

Although the WFP has made strong efforts to assess communes and households since 1993 in relation to their food insecurity, and together with the Cambodian Red Cross (CRC) has endeavoured to respond to the immediate need, there have been few efforts to provide a suitable longer term mechanism for relieving short-term food insecurity. In other countries, such as India, public works programmes and response capability are prepared before the onset of any major upheaval or anticipated seasonal food shortages. The incidence of agro-ecological problems and continued disruptions through insecurity in recent years indicate a need for more permanent preparedness for such operations. At the moment, however, it is primarily the WFP, working through the CRC and a number of NGOs, that is undertaking this task in collaboration with local authorities. Their frame of reference, however, tends to be a short-term one. Structures (not necessarily all government ones) need to be put in place for longer term preparedness to overcome short-term food insecurity in different areas, communities and households by planned employment-generating and food supply schemes during lean periods, particularly in rural areas.

What is important to recognize at present is that although quite a number of households with problems of short-term food insecurity can be helped by income-generating schemes, there are a number of other households that for various reasons cannot avail themselves of such schemes. Their poverty and deprivation is such that different forms of relief are still called for until they can support themselves better from their own income-generating activities, and have strengthened their asset base to enable them to withstand any possible future disruptions to their food security.

Chronic food insecurity

For many Cambodians in rural and urban areas food insecurity is fairly chronic, and they need either the means to produce food or the means to generate income, or a combination of these. A number of government departments, international organizations and NGOs recognize this, and food security considerations are included in the ways in which they develop their supports, but to date there has been limited cohesion and integration of their efforts through a common food policy and food strategy.

Most people in rural areas of Cambodia produce a significant proportion of their food, or would do so if they had the means. Accordingly, different methods to facilitate and develop food crop production, animal raising, fishing and gathering/hunting are important in such a strategy. The crucial question is, what sort of supports are the most appropriate at this time and, perhaps more importantly, which are the types of supports that are most appropriate for different categories of food-insecure households to enable them to reduce their food insecurity. Although a number of programmes in MAFF have emphasized food production, their approaches appear to have focused more on technical improvement and intensified production than upon who benefits from these activities and specific producer targeting. Given the limited non-agricultural income-generating opportunities currently available in rural areas, it is important to stimulate food production more, but it is also important for this stimulus to go towards food-insecure producers as well as the better endowed. Technical supports without targeting usually work more to the benefit of more established producers, and poorer producers can become marginalized. From a food security point of view, Cambodia cannot afford to have that happen at the moment (if at all), and there is a need to develop policies of agricultural support that clearly help food-insecure producers.

In this direction, one of the issues that again arises, and is likely to continue to arise, is the question of land availability for cultivation. Demining of agricultural land with a rich potential and in areas where landholdings are small or there is considerable demand for land by food-insecure groups could be of considerable help, particularly in the north-west. Land holdings of many producers are inadequate for their household needs in terms of food supply and yet, in some areas at least, there is land available. Over the last few years there would appear to have been too much emphasis on the ownership aspects of land, rather than on how to make what cultivable land there is available to a large number of people in an area, and thus to enable more of them to produce and use the land more fully. This requires more social and legal approaches to land tenure issues. If land is readily available or undercultivated, enabling it to be cultivated is a more immediate way to help food security in these areas than other supports that will take longer to develop. In this context improved legal arrangements for renting land would probably help optimize land use initially. There is also a need for government to take a strong stand against manoeuvres by local officials and unscrupulous land speculators to appropriate land.

Efforts to ensure that food-insecure producers have access to the basics they need for cultivation with known technologies, such as draught power, ploughs, handtools and seeds, would still appear to be a prime consideration, whether this be done by credit, increased supply to the market or other means. The government seems to wish to avoid subsidizing inputs, but it can ensure better support to their provision at reasonable prices by aiding importation, credit schemes, quality control, and stimulating Cambodian production or improving access routes.

Diversification and intensification of production are two alternative approaches and efforts are being made in both these directions, but the difficulties of introducing some of these alternative systems and sustaining them in an appropriate way should not be underestimated. Although rice is the main food crop produced in the country, there is a strong need to diversify production into other nutritionally valuable food crops to supply the balanced diet that is

currently sometimes lacking and ensure basic food supplies throughout the year. The MAFF has occasionally displayed an apparent fixation on rice to the exclusion of other products. Different areas, different communities and different households will require different approaches to this, and it is thus unlikely that one particular strategy on its own will suffice.

What is also needed is better cost/benefit consideration of different food production and distribution systems. At present the systematic measurement and weighing of alternative costs and benefits of different agricultural approaches for different types of producers are weakly developed (not withstanding the exercises of the ADOR 1 team in 1994).

There is a tendency amongst a number of foreign organizations and NGOs to plunge into some agricultural development projects in order to get something started and achieved. Some of the NGOs which have been in the country for longer, such as the Groupe de Recherche et d'Echanges Technologiques (GRET), have moved much more steadily before introducing new approaches, and even these organizations have had their failures. A difficulty is that many NGOs see the strong need for improvements in the lives of many Cambodians and do not want to delay longer than necessary in implementing some improvements. In the long run they also need to justify their existence, and thus there is a certain compulsion to show results. Some larger development agencies also suffer from these attitudes, which leads them into ill-prepared activities. A number collaborate and learn from each other, but without an established forum for the exchange of ideas on food-security issues, such a perspective can get lost among other considerations.

Some organizations and government departments have seen the increase of food production as the key food security issue, but for many households in rural areas there are also strong needs for additional income from other sources. Post-harvest activities and local food processing and preparation are important means of generating income in rural areas, particularly for women. The ILO has made some efforts in the direction of developing food processing in rural areas, but in the ADOR study of 1994 food processing was hardly considered, nor has the Ministry of Industry given much attention to this subsector to date. Much more could and needs to be done in this direction, and not just in relation to rice.

One great difficulty is that knowledge by policy and programme makers in Cambodia of the nature of rural labour markets and of labour use by different categories of household is still very weak. To date the ILO, which has considerable experience in these directions, has not done much, and is only just beginning to give greater consideration to these aspects. Cambodian capacity for analysing labour markets is very limited. There is a strong need to analyse the potential of rural labour markets and develop many more employment- and income-generating approaches for rural areas that will fit in with existing labour patterns, supplement income at particular times of the year and be sustainable. Much more attention could also be given to efforts to reduce labour time on specific activities, thus releasing labour time for other uses. This is very relevant for women, who are pressed to do so many things. These employment-generation approaches need also to focus on the specific circumstances, and employment and training needs and possibilities, of different types of food-insecure households.

Although some consideration has been given to employment generation in Cambodia, rarely has this been preceded by thorough analyses of the livelihood circumstances of particular households and particular constraints on expanding certain types of activity. Attention needs to be focused especially on ways in which different policies and developments are having, or are likely to have, effects on people's livelihoods. A greater understanding is also needed of how particular food insecurities are leading certain households to jeopardize their livelihoods, particularly in relation to debt, loss of access to land and loss of productive assets. A detailed analysis of livelihoods has hardly begun in Cambodia.

In this context it is important to remember that although food is a prime need for all households, particularly poor ones, it is not their only basic need. Recent research (see Haddad et al., 1995) has indicated the importance of other needs, particularly health and educational ones, and how they impact on nutritional well-being. This is extremely relevant in Cambodia at present. The interlinkages between individual food insecurity and health or education are substantial, but poorly analysed to date. A focus on food provision to the exclusion of other key needs is likely to be unsustainable, and not necessarily in the interests of overall food security.

A number of organizations in Cambodia are beginning to recognize some of the weaknesses in the social structure and the ways some psycho-social problems are inhibiting development. These have not been analysed in any systematic way, however, in terms of how they have an impact on the food insecurity of particular types of household or individuals. Given the importance in most countries, and in Cambodia in the past, of social supports as a first line of defence in household food security, efforts to find out how certain individuals and households are excluded from such supports, and the ways in which such support systems could be strengthened, are most crucial. Quite a number of projects and programmes in Cambodia at present find that certain "vulnerable" categories of household or individual are excluded from support, but the ways in which social factors contribute to that exclusion is poorly understood. Sometimes the exclusion occurs because the individuals or families concerned are in conflict in some way with the dominant families or officials of the area, or because they are strangers, or have manifested some behaviour disliked by the local community.

For most organizations in Cambodia it is still hard to identify clearly which are the more food-insecure households in particular areas, their characteristics, and the direct and indirect causes of their food insecurity. This makes the targeting of resources to help them overcome this food insecurity an often time- and resource-consuming activity. Accordingly, a number of organizations end up cutting corners in this targeting, and hence supports are misplaced.

It also needs to be recognized that some categories of people have problems just surviving, that they need some relief components in support that is directed to them, as failure to provide these in their stressed and burdensome circumstances has often led to their failing or missing out on other developments and forms of support.

◆ 5.3 Individual Food and Nutritional Needs

Although the prime causes of food insecurity in many Cambodian households may be linked to their poverty, weak asset base, poor food production potential or poor income-earning capacity, it is also clear that for a wide range of families other factors, such as nutritional and food hygiene knowledge, attitudes towards food, and intra-household food distribution have an impact on individual food security.

One of the strategies of food-insecure households for overcoming temporary food shortages without depleting assets or running into debt may be to reduce food consumption. This tendency has hardly been studied in Cambodia. While some households would rather go into debt than reduce food consumption, others may choose the latter option. Where this occurs it is likely to contribute to malnourishment if continued for a significant period. This reaction is often not taken into consideration in nutritional surveys and appears not to have been considered in nutritional surveys undertaken in Cambodia in recent years, particularly ones looking at seasonal differences in nutrition.

There are still considerable needs for improved nutritional surveillance and an improved epidemiological understanding of nutritional problems, as it would appear that severe malnutrition of children is often linked with infectious diseases in the family.

It is clear that nutritional ignorance, particularly that of mothers, in Cambodia is a significant factor in individual food insecurity, especially of children, ill or convalescing people and pregnant women. A number of government and NGO programmes are conscious of this and are beginning to respond to the need in terms of nutrition education programmes, but others are not. To date a clear nutrition education policy and strategy incorporating the Ministries of Education, Health, Rural Development, Social Action and Women's Affairs has not been formulated and linked with the activities of grassroots organizations and NGOs. This should begin to happen as the Cambodian National Nutrition Plan of Action develops, but to date the responses have been inadequate and often unintegrated.

◆ 5.4 Macro-Economic, Socio-Economic and Environmental Impacts on Food Security

A number of Cambodian policies and programmes in relation to agriculture, employment generation and welfare relief have had food security objectives. Many others that are likely to have an impact on food security, such as macro-economic policies, foreign investment policies, foreign trade policies, transport, infrastructural development and tourism, have not systematically considered food-security impacts in their formulation or development. Others may not have any direct impact on food security, but by their use of limited resources or their impact on the macro-economy, these policies and programmes influence food security indirectly.

Ideally one would like to see a food security audit undertaken on major development projects and programmes and the food security implications of

each policy reviewed, but this is unlikely in the near future. The government has already established a policy of wishing to subject projects to an Environmental Impact Assessment, but one year further on, and this is still far from being implemented even though there is a ministry with designated responsibility (albeit with limited support) for such a policy.

Very few ministries have established a strong capacity for policy formulation and integration. Even those that have barely engage in planned monitoring or evaluation of their policies and programmes.

From a food-security perspective, policies and programmes can be analysed using the following criteria:

- A. Those which are conceived with a primary aim of directly achieving food security objectives (e.g. setting up a food security monitoring system; providing certain types of relief food to target groups);
- B. Those which have as one of their stated aims some food security objective (e.g. increasing agricultural production in food-deficit areas, or employment-generation amongst specified food-insecure groups);
- C. Those which do not have a stated food security aim, but which are likely to have a food security impact (e.g. rural health programmes that only have as their aims health improvements, but which are likely to result in improved labour productivity, hence greater food availability);
- D. Those which have neither a stated food security aim nor an immediate food security impact, but which may influence positively or negatively the macro-economy or specific economic sectors, thus indirectly influencing food security (e.g. tourism promotion or airport construction).

To a greater or lesser degree, the categories B to D all have some impact on food security, if only in consuming resources that might otherwise be allocated to activities that might contribute more to food security. In the process of analysing such policies and programmes, it is likely that ones that initially appear to fall into category D may eventually come to be categorized in category C, as their impact on food security is revealed. As such an impact becomes apparent, it is likely to draw attention to the need to state clearly the food security objectives involved, and hence move them towards category B.

The crucial questions are:

- Does a particular policy or programme affect either directly or indirectly the food security of any particular group?
- If so how, and by how much?
- What are the positive and negative effects on food security for different groups in society, particularly food-insecure groups?
- How much can these be measured and their comparative importance weighted?
- Are socio-economic developments taking place that were not anticipated in the policy-making process; do they have a significant impact on food security and, if so, how and how much?

Currently Cambodian government policy is focused on macro-economic stability, state restructuring, state divestment, private sector development, trade liberalization, sectoral rehabilitation programmes and human resource development. A number of these are standard requirements of structural adjustment programmes. The food-security implications of these policies have hardly been considered.

Other analyses of the impact of structural adjustment policies on food security (see FAO, 1989) have indicated mixed impacts, both in the short and medium-term. Usually the more positive results from such policies were felt in middle-income rather than low-income countries such as Cambodia. These programmes have often had adverse effects on food security in the short term at least (and also sometimes in the longer term), particularly on poorer and more vulnerable sections of the community. Sometimes the organizations pushing for such policies have set up “safety net” programmes (such as the World Bank’s Social Dimensions of Adjustment (SDA) programmes) to help alleviate these impacts, but frequently these have amounted to doing too little, too late. They are often seen as tinkering to give a human face to structural adjustment policies, rather than altering the latter. In Cambodia such policies are now being pursued, but such “safety net” policies and programmes are not in place.

Although structural adjustment programmes appear to have helped staple food production in some countries, in many cases the “benefits” have been negligible or negative. Often the price and other incentives coming from such programmes are not passed on to farmers, or farmers are unable to respond to them. In many countries markets for agricultural products are highly fragmented and/or are characterized by market imperfections. Where this is the case, structural adjustment measures of this kind can have a limited or even negative impact on food production. Non-price factors, such as input supplies, credit, technical production supports and infrastructural facilities can have a more important impact. In Cambodia, currently, a number of these non-price factors are still inadequately considered.

De-regulation and privatization of crop marketing has also not always had beneficial effects, particularly where marketing agents are able to effect windfall profits from market imperfections. Where marketing institutions have been rapidly dismantled but adequate substitute organizations are not available or take time to develop, such reforms can have negative effects on local food availability. Cambodia seems to be partly at least in these circumstances at present.

Although there are some food-insecure households in urban areas, the bulk are in rural areas. Many need to purchase a significant part of their food supplies from the market. Accordingly, food price increases for producers are likely to benefit larger producers but disadvantage smaller ones. Most Cambodian producers are smaller ones.

One negative aspect of most structural adjustment policies has been reductions in wage levels and increased unemployment, the brunt often being experienced by the poorest in the community. The anticipated employment-generation benefits from structural adjustment rarely reach the levels anticipated and the net employment outcome can often be negative. This could quite easily happen in Cambodia.

Cuts in government expenditure often have both direct and indirect impacts on food security. Subsidy reduction or elimination of food rations or food-producing inputs often has negative effects on food supply. The poor are also often adversely affected by cuts in other public services (particularly health services) that force them to cut food consumption to pay for other essential needs. In Cambodia a number of these supports have been limited over the last 15 years in any case, but circumstances have deteriorated in some of these aspects in the last few years.

It would appear that trade liberalization may be exerting negative effects on local food production and consumption patterns in Cambodia by allowing an influx of foreign foods from economically more developed neighbouring countries among others. This creates competition with the production of comparatively disadvantaged Cambodian producers and distorts consumption patterns. Similarly, foreign investment in food processing focusing on “luxury” foods or nutritionally-poor foods may generate employment but introduce foods that are of little benefit to the poor and food-insecure, and may entice them away from cheaper, more beneficial foods. Further, the fact that little foreign investment is going towards rural areas or inland provincial towns is likely to strengthen the migratory pull towards the capital or Kompong Som. All these aspects need further monitoring and analysis in terms of their impact on the food security of particular populations and groups.

In addition, environmental developments are having and are likely to continue to have a significant long-term effect on national food security in Cambodia and on longer term food availability. Some of these environmental effects have been identified but because they have hardly been studied in any depth, it is still very hard to establish the extent and importance of different developments in different locations and pinpoint the crucial factors leading to them. Unfortunately, not only are some of these negative environmental factors developing quickly, but they are likely to have longer term negative effects on food production and supply. The plans for Environmental Impact Assessments currently beginning to be developed are hardly focusing on food security impacts in any measured way. A coherent policy and programme to evaluate environmental impacts on food security is needed, with support and information from all local-level organizations which come into direct contact with these impacts. In a speech on food security in Cambodia, the Minister of Economy and Finance recently indicated (Keat, 1995) that “sustainable development” was a key aspect of the government’s concerns over food security, but this concern needs to be converted into planned monitoring, evaluation and action.

◆ 5.5 Organizational Responses to Food Insecurity

Given the current weak socio-economic state of Cambodia and the vulnerability to food insecurity of many households, there is a need for all major agents, whether they be government organizations, foreign assistance agencies or local support organizations, whose work has an impact on food security, to consider it more fully. They need to make their food security objectives and approaches clear and to develop effective, appropriate monitoring systems of food

insecurity. They also need to collaborate better over food security analysis and responses than they have to date.

All such organizations need to start their assessments of the food security, in the areas in which they are operating, with an appraisal of how the people they are dealing with assess risks to their food security and respond to them, before trying to formulate intervention strategies. Different food-insecure households have developed a range of strategies to secure their food supplies. Unfortunately, to date the ways in which different households assess their food security risks and develop effective responses has been little studied. In the rapidly changing socio-economic environment of the last few years in Cambodia, the effectiveness of different strategies for responding to food insecurity are changing. Accordingly, in order to develop effective social supports, these risks and the responses by the households themselves need to be regularly monitored and evaluated. Relief and development organizations also need to appraise more fully how the local social structures influence responses to food insecurity.

Governmental organization and food security

Currently, the Cambodian government is going through a major restructuring process, largely brought on by the recent civil service financing difficulties and overmanning, linked with changing emphases on the role of the state and its activities, as well as pressure from different international organizations to restructure the civil service. This restructuring is due to be completed in 1996. Accordingly, it is an apposite time to include discussion and clear organizational formulation of the best ways of incorporating different aspects of food supply monitoring and analysis; food policy and programme formulation, monitoring and evaluation; and food deficit response mechanisms into the organizational structure of government, at both the central and local levels. Without appropriate organizational structures, personnel and resources, policy statements on food security without implementation capacity may be fairly meaningless.

From the above presentation of government involvement in food security (see also Appendix 1) it is clear that no one line ministry is appropriate for the location of overall responsibility for all aspects of food security. What is required is a focal point in government for food security and food policy considerations, which has a co-ordinating capacity and a technical analytic capacity. This would enable government decision makers to have a more informed and balanced evaluation of different approaches to food insecurity than is currently the case.

The building of an appropriate governmental capacity at the provincial and district levels to monitor and analyse factors contributing to food insecurity of different communities and households in their areas is also necessary at this stage, with initial consideration as to appropriate local government response measures to food insecurity.

This is not to say that government should necessarily be the prime mover in food security activities, but it needs to be a major actor. There is also a need for

government to avoid a multiplicity of small co-ordinating structures in different but inter-linked aspects of food security.

Large international aid and development agencies and food security

A number of large international organizations have been operating in Cambodia during the last three years and apart from establishing themselves, have struggled to adapt to rapidly changing circumstances and roles. Some, like the WFP and FAO, have a direct requirement to consider food security in their mandate, while for others, such as UNICEF and the ILO, food security often appears as a major pre-occupation.

Most of these organizations and bilateral donors are currently reviewing the nature and direction of the work they are undertaking in Cambodia. Some of them have made a conscious effort to incorporate and develop Cambodian organizations within their programmes, but these have not always been the most appropriate ones for sustainable longer term development. Sometimes organizations that have been developed for one purpose have been called upon to effect other tasks that should be the responsibility of a different type of organization. For example, the Cambodian Red Cross (CRC) was initially involved in relief efforts for people displaced or otherwise adversely affected by war, but has more recently been called upon to distribute relief to communities affected by agro-ecological problems. Simultaneously, MSALVA has been given a responsibility for disaster relief, but not the means to respond to it. Cambodia cannot afford to have duplicate developments and duplicate structures at this stage of its development. Particularly in their relations with government departments, large international organizations need to ensure that the Cambodian structure is the appropriate one for longer-term development at this time, when departmental and ministerial responsibilities are being redefined. If the appropriate departments or ministries are not functioning well, then institution-building is perhaps called for rather than searching for or continuing with inappropriate organizations because they fit in well with the immediate objectives of the international organization.

In relation to food security, many international organizations need to have a clearer policy as to how they intend to help develop the appropriate Cambodian structures to sustain and expand their activities or at least develop a capacity to assume more functions currently executed by these international organizations. In the food security context this particularly applies to food insecurity monitoring and assessment; food price and supply monitoring and assessment; relief food procurement and provision; local food production assessment; food policy and strategy formulation and evaluation; relief public works planning and implementation; labour market assessment; employment-generation strategies and implementation; nutritional surveying and analysis; national nutritional consumption norm formulation; and nutritional and food hygiene/safety education formulation and execution.

Non-governmental organizations (NGOs) and food security

A number of NGOs that have been working with food-insecure groups in the country, particularly Cambodian NGOs, are well aware of the risks to food security that exist in the country for many households and individuals. Often they have attempted to include consideration of how to help overcome food insecurity in their approaches, but rarely have they done this in any systematic way or monitored the impact of their activities on food security. With their closeness to some particular communities, they are in a good position to look more systematically at the ways local communities and households view their risks of food insecurity and respond to these risks, and what success they have in doing so.

Some NGOs need to be careful about the food security indicators they use; they must make sure that the indicators are suitable for the locations in which they are operating. For example, as an indicator of food insecurity, the “food gap” needs to be attentive to food retention practices; the nature and extent of post-harvest debt-recall by money-lenders; post-harvest crop sales for other needs; habitual food stock disposals during the year for other needs; and crop and food conservation practices. If these are not taken into consideration, the indicator can misrepresent the circumstances. Indicators must also be appropriate. If cattle sale prices are used as an indicator, it is necessary to establish what percentage of food-insecure people in the area actually have cattle, as well as the factors that lead them to sell cattle, before using them as a valid food insecurity indicator for that community. Further, what may be a suitable indicator in one area may not be so in another, and the utility of such indicators can also change over time in different areas.

Since many NGOs wish to work in aspects of community development, they should be interested in analysing how social supports operate in the areas where they are working to help people overcome their food insecurity. Greater effort by NGOs in these directions and exchange of information and experiences could be a very positive immediate contribution on their part to the understanding of local responses to food insecurities. The establishment of a regular NGO forum specifically on food security might help such a process.

A number of foreign NGOs still need to concentrate more on the sustainability of their work and on avoiding conflict with other wider initiatives with similar or linked aims that cover a larger area or larger number of people. They also need to resist the temptation to embark on certain types of programmes or projects, particularly in relation to new technologies, credit, animal or crop banks, input provision and irrigation and feeding programmes, without first investigating carefully the needs and circumstances of potential users. Some have justified initial direct assistance as a way of forming trust with the local community, but it would appear that this sometimes creates expectations instead of facilitating community organization to achieve relief or development objectives. Collaboration and exchange of experience with other organizations that have already been working with similar approaches is most important.

6. CONCLUSIONS

This paper has attempted to piece together what is known about food security in Cambodia and the approaches of different agencies towards food security issues. It is apparent that there are major gaps in knowledge of many crucial aspects. While definitive conclusions on priorities in relation to food security in Cambodia clearly need to be based on further research, certain aspects do permit some preliminary conclusions. These should be firmly considered in all policy-making that has an impact on food security.

- Cambodia is still vulnerable in terms of national food availability, and particularly so in certain areas and at certain times of the year. Responses to these problems of food availability will be necessary for a number of years to come, even if overall national food availability is adequate in any one year.
- Accessibility to food throughout the year, particularly for certain types of households and at certain times of the year, is a more pressing problem and will need continued attention.
- The capacities of individual food-insecure households to produce their own food (particularly in relation to land availability and means of production), or their income-generating potentials to purchase from the market are of particular importance.
- A number of nutritional problems are due to ignorance, and educational activities in relation to nutrition and health are likely to be of considerable importance in order to overcome nutritional weaknesses in the longer term.
- All proposals for organized responses to food insecurity need first to assess in a more informed way how particular food-insecure households view their food security risks, how they are currently trying to cope with them, and how the local social structures help or hinder this.
- The Cambodian government needs to have a sustained response to different food security issues; become organized both nationally and locally to monitor, analyse and respond to different aspects of food insecurity in a cohesive way; and formulate an appropriate food policy.
- International and foreign agencies with an impact on food security in Cambodia need to be able to assess better the impacts of their activities on the food security of different groups and develop clear food security objectives and assessments in their approaches, while co-ordinating well amongst themselves and with governmental and other Cambodian organizations.
- Foreign agencies need to develop clear, planned local capacity-building supports on food security monitoring, analysis and response through appropriate Cambodian organizations.
- Consideration of all larger investment proposals should include assessments of the likely food security impacts on different groups whose food security might be affected by such investments.
- Clearer delineation of food-insecure categories of people and households is required, with an indication of the prime factors contributing to their food insecurity, including psycho-social factors.
- Environmental developments with an impact on food security need to be assessed more rigorously.

- The impact of foreign trade on domestic food availability, accessibility and nutritional levels needs to be assessed more fully and clearly.

7. APPENDICES

◆ 7.1 Appendix 1: Relevant Government Policies and Programmes

The **Ministry of Agriculture, Forestry and Fisheries** (MAFF) has been one of the key ministries involved with food security issues to date. It took a lead in discussions regarding food security issues during the Agricultural Development Options Review (ADOR) in 1994. In the second stage of that process all the focus groups were directed to consider the food security implications of different options being reviewed, but there was not one focus group specifically on food security; clear policy formulations on food security have yet to emerge from that process.

Up until now MAFF has been particularly involved in assessing overall and local food availability from local production. The assessment of local food availability and requirements is plagued by a very weak data base and limited analytical techniques that call into question most of the analyses so far undertaken. Population data are still weak (the last census was in 1962, and a new one is now only planned for 1998). Data on areas planted to different crops and estimated yield and production figures for different crops are currently very weak, as central level staff readily admit. In the past this system was oriented to measuring the fulfilment (or otherwise) of target plans, rather than serving any availability assessment needs. Significant discrepancies between provincial level data and that supplied to the national level were found in an assessment made by the WFP in December 1994 (WFP-Cambodia, undated). This survey showed that in some provinces their estimates were as much as 83 per cent higher (Prey Veng) and in others as much as 26 per cent lower (Banteay Meanchey and Kratie) than MAFF ones (WFP-Cambodia, undated). Whereas local government figures appear to have overestimated the areas harvested, they appear to have underestimated yields. The WFP study did, however, show that the communes considered most vulnerable as assessed by MAFF were often those that the latter also considered to be most vulnerable. The World Bank was due to provide technical assistance on the collection and analysis of agricultural statistics (KoC, 1995). Over the period October 1995 to January 1996, the FAO and MAFF undertook a Rice Crop Pilot Survey for the 1995/96 crop in four provinces of the south-east to cross-check normal government estimates with FAO/WFP assessments, farmers' forecasts and crop-cutting approaches. This exercise revealed significant disparities between estimates of area cultivated and mean yields from these different assessments (MAFF/DPS/FAO, 1996:19-21, 27).

The focus is primarily upon improving agricultural statistics in order eventually to obtain more meaningful assessments of food availability. Until now assessments of food availability appear to have focused on "wet season" paddy harvests on an annual basis, but with little capacity for continuous or periodic assessment and food deficit forecasting for specific areas.

Different proposals have been put forward (Muller,1992; FAO, 1994), and are still being considered, to establish a food security unit (FSU) within MAFF that would develop a food security information system (FSIS), and an institutional capacity to monitor and evaluate the national food security situation at any point in time; the primary focus, it would appear, would be local food production availability. The unit would apparently consider meteorological data and market information and identify vulnerable communes, in effect operating as an early-warning system. Leaving aside food production data, the methods of estimating consumption requirements are still crude and their basis is weak. The WFP recently considered that "further research is

required on the level of consumption in Cambodia” (WFP-Cambodia, undated); it is hoped that the Socio-Economic Survey of the National Institute of Statistics (NIS), due to be completed in 1995, may partially afford this.

The **Ministry of Commerce** (MoC) has primarily focused on food trade and overall food availability. Data on official imports and exports of food products have been very slow in appearing, thus making estimates of real national availability even harder. In any case, significant quantities of some food products appear to cross national borders, and are not recorded. The Asian Development Bank is currently assisting with the improvement of the customs documentation system, but significant results have not yet emerged. The Ministry of Commerce is now monitoring food prices, but has a very weak capacity for analysing these data, and still has a weak understanding and knowledge of the functioning of the food marketing system within Cambodia.

A crucial issue for both these ministries in their food availability monitoring and analysis efforts is the response that can be made for possible shortfalls. Previously, government intervention with regard to availability had mainly been in rice distribution. After the de-regulation of rice markets in 1992, the provincial companies and KAMPRIMEX (under the Ministry of Commerce), that had official monopoly control over the marketing of rice, were forced to compete with private operators in a completely open market. Some of the people in these organizations still believe that some public intervention in the market is necessary to provide a degree of support to food producers and consumers. Since 1993 the National Food Company (formerly KAMPRIMEX) has wanted to procure 50,000 tons of rice at market prices for resale at market prices in appropriate locations and at different times for price stabilization and emergency relief purposes. The Ministry of Finance, under pressure to limit government expenditure under the structural adjustment programme, allocated only 1 billion riels in 1994 for such an operation, when 30 billion riels was considered necessary. Some sections of the government and some foreign donors currently seem quite firmly opposed to such approaches, but in 1996 the FAO/WFP assessment mission advocated that “the Government, with donor support, purchase and keep a stock of some 25,000 tons of rice for emergencies” (FAO/WFP, 1996:3).

Other government interventions in the recent past have included the release of rice seed in affected areas by the Agricultural Materials Corporation (COCMA) of MAFF (usually written off as a loss); the lifting of import duties on rice; and reduction of the turnover tax from 4 per cent to 2 per cent, to encourage imports. If significant food shortages look imminent, the government currently appeals to international organizations for assistance, as it did in November 1994, since it hardly retains any direct capacity to intervene.

The **Ministry of Social Affairs, Labour and Veterans Affairs** (MSALVA) has a responsibility for disaster relief which should involve it in questions of short-term food insecurity, but currently has little organizational or financial capacity for handling such circumstances. The Ministry of Public Works and Transport (MPWT) at present has no worked-out policies, strategies or capacity for regular or relief infrastructural employment schemes directed towards food-insecure communities or households. In 1996, the UNDP plans an institutional strengthening of MPWT through the “Upstream Project”, with ILO as executing agency (Sida, undated:102).

Many of the policies considered above relate to responses to **temporary** shortfalls in food availability. There is still usually a **chronic** overall shortfall in food availability in the country. This is being addressed by the efforts in agriculture, animal raising and fisheries to increase overall food production at reasonable cost. Considerations of improving food availability appear to have strongly influenced agricultural policies and programmes. Although some efforts have been made to reclaim land for extensive production, the MAFF maintains that limited cultivable land is available currently. Accordingly, MAFF wishes to focus on intensification, but the Ministry still has a very

limited capacity for extension work. Irrigation, particularly for dry season crops, has been another area of focus, but many irrigation schemes have not been considered economically viable. The FAO and other agencies have attempted to sustain fertilizer and pesticide distribution. Although substantial efforts are being made to stimulate agricultural production, particularly of rice, not much attention appears to have been given to the differentiation of support to different sizes and types of producer, and some of the smaller, more food-insecure producers have tended to be left out. Some debate has ensued as to whether it is preferable to support basic food production or commercial crops to generate more income to aid the food security of agricultural producers. No conclusions seem to have been reached, but the MAFF appears to favour supports to rice production in its major statements and programmes, such as the one with CIAP.

The **Ministry of Agriculture, Forestry and Fisheries (MAFF)**, the **Ministry of Rural Development (MRD)** and the **State Secretariat for Women's Affairs (SSWA)** have all been involved with the Family Food Production Programme initiated by UNICEF in the 1980s (see Appendix 2), but otherwise still do not have particular strategies of their own for improving household food security. Furthermore, they are not yet structured to make policy and implement it on a regular basis in relation to household food security. The Ministry of Rural Development (MRD) is a newly created ministry, and although it has had a lot of resources, much of its time and energy to date have been taken up with becoming established. It does not have a section specifically involved with food security but has been working on aspects of rural feeder road development, water supply, rural credit and small irrigation schemes, as well as aspects of community development.

The **Ministry of Social Affairs, Labor and Veteran Affairs (MSALVA)** is a newly created ministry with responsibility to assist certain vulnerable groups, particularly war handicapped and war widows and their families, demobilized soldiers, and children (particularly street children and orphans). It also has a responsibility for employment generation and for professional training, although progress in these fields appears limited. Knowledge of labour markets and labour statistics is very weak. The Ministry of Education (MoEYS) has had responsibility for much of the vocational education until now, and has received the support of the ILO and others. It is intended that literacy programmes will be linked to on-going employment training and income generation schemes. In 1995-96 a Master Plan was being formulated on Technical, Vocational Education and Training (TVET), with German aid, and more resources are to be put into human resource planning (see CDC/MoEYS, 1994; ILO/UNDP, 1995).

More immediately MSALVA intends targeting supports to children (particularly orphans, vagrant children, children with disabilities, sexually exploited children, and others that have been mentally or physically abused), vagrant families, people with disabilities, widows in especially difficult circumstances, the frail elderly without support, single-headed households with many children, internally displaced people, and people needing emergency relief (MSALVA, 1995). An estimated 123,600 people (1.4 per cent of the population) are handicapped in some way, of which over 21,000 are amputees (Ludowyk and Blatti, 1995). Up to now a number of these functions have been undertaken by other organizations on a partial basis. The ministry has not been given the means to implement such supports on a regular and more sustained basis, nor has it as yet focused its strategies on the food security needs of these particular groups, although it clearly recognizes such needs as important ones.

The **Ministry of Health (MoH)** has had overall responsibility for health care services, preventive medicine, health education and nutritional monitoring. A number of one-off nutritional surveys have been undertaken in recent years (see MoP, 1995), but systematic nutritional monitoring is extremely weak at present. The new information system of the Ministry of Health includes little information on malnutrition (see Ministère de la Santé, 1995).

Nutrition and nutritional considerations have until recently been comparatively marginal to other health activities. There are currently no fully trained Cambodian nutritionists working in the country, but 16 Cambodians have received some training in nutrition in Thailand and Indonesia. A national nutrition plan of action was being formulated in 1995 for presentation to the Council of Ministers. The MoH's plans (MoH, 1994) have a clear commitment to preventive medicine and the promotion of good nutrition in their general goals, but the roles and functions of provincial and district health departments have not included specific reference to nutritional education or nutritional monitoring. In 1994, however, each Provincial Health Department was to develop annual plans with nutritional indices, and nutrition and health education strategies. In 1994, one of the five priority areas of a new national policy was to be nutrition. The Health Education Department has produced some materials and training programmes in relation to food safety, but little so far in relation to nutrition. The National Centre for Hygiene and Epidemiology (CNHE) has undertaken several surveys, but has been more oriented to epidemiological surveillance rather than nutritional surveillance, and has not yet engaged in health sociology research or research into the impact of particular diseases on the livelihood and food security of the families affected. It also has a responsibility for goitre prevention. CNHE is expected to play a greater role in the training of health workers and health education, but is likely to be incorporated into the newly established National Institute for Public Health (NIPH). Despite these objectives, funding remains a major constraint. Of the estimated funding needs for nutritional programmes for the period 1995-1997 of US\$ 900,000, only US\$ 20,000 had been made available in mid-1995 (MoH/WHO, undated).

Some attention is also being paid to considerations of food safety (particularly among street vendors) (MoH, 1995), and the need to do more in relation to food hygiene training and education, as well as to control the inappropriate use of pesticides. The Ministry of Industry, Mines and Energy (MIME) has taken an initiative, with the help of UNIDO, in formulating a project (UNIDO, 1995), linked with other ministries, on food safety. This project, for which finance is currently being sought, aims to establish laboratories and a capacity to regulate and ensure the quality of food products produced or traded in Cambodia. MIME, however, has still not formulated a coherent development strategy for the food processing sub-sector, although this represents a third of all industrial enterprises.

The **Ministry of Education, Youth and Sport** (MoEYS) has only marginally considered the food security aspects of its work up until now. With the WFP, some school feeding programmes have been introduced. Consideration has been given to aspects of nutritional education, food hygiene and food consumption in literacy and curriculum programmes, but often only in a marginal way. It is intended that a health and nutrition study will be undertaken in 1996 in relation to pre-school education, and that subsequently consideration of these aspects will be incorporated into pre-school education programmes. Ministry officials are clearly aware that malnourished children cannot study well, and that inadequate provision of basic needs causes parents to remove children (particularly girls) from school (MoP, 1995).

The **Ministry of Environment** (MoE) and MAFF are concerned with the negative aspects of some environmental developments upon agriculture, fisheries and food gathering, as well as the negative environmental effects of particular agricultural inputs. To date, however, they have not had the resources to concentrate on these problems. The Ministry of Environment's environmental impact assessment (EIA) approaches are still not off the ground. In any case, the EIAs planned do not include any specific assessments of food security impacts.

The **Cambodian Development Council** (CDC) has no food security assessment guidelines for investment proposals, nor are there environmental ones; however, more detailed consideration is being given to the employment generation potential of different

investments, and environmental considerations are beginning to be examined more closely.

◆ 7.2 Appendix 2: Programmes and Approaches of Selected International Agencies

United Nations Children's Fund (UNICEF)

One of the few larger international organizations that has been operating in Cambodia since the 1980s is UNICEF. Since 1986 UNICEF has developed and supported the Family Food Production Programme (FFPP), which has been directed specifically towards the improvement of household food security in disadvantaged villages by supports to agricultural production and employment generation. It aims to improve overall family health and nutrition by providing seeds for vegetable gardens, tree nurseries, animal raising and improved access to water. This programme now operates in most provinces through different ministries, and by the end of 1994 was expected to provide support to over 80,000 households or approximately 7.8 per cent of the Cambodian population (Bernander et al., 1995). An evaluation in 1992, however, indicated that although this programme has contributed to improved household food security in the areas in which it has operated, the most food-insecure groups in those areas often have not benefited significantly (Demaine et al., 1992). There was an "apparent lack of interest of the poorest in taking part" in the programme, and 20 per cent to 30 per cent of potential beneficiaries "were too poor to participate". The poorest households or households without an adult male tended to fail more in the scheme (Bernander et al., 1995:45).

The FFPP had not established any monitoring systems and had apparently overlooked "the fact that household food security is a necessary but not sufficient condition for improved nutrition" (Demaine et al., 1992). Subsequently the FFPP undertook nutritional surveying (UNICEF, undated a) but the benefits and costs of the programme have still not been fully assessed (Bernander et al., 1995). Vegetable production, which would have improved the variety of rural diets, was used more for cash income to buy rice than for consumption. Provincial committees composed of representatives of the Ministries of Agriculture, Health and Education and the Women's Association, guide and monitor this project at the provincial level. These committees could provide an ongoing focus for household food security co-ordination at the provincial level.

UNICEF has also been involved in supports to particular vulnerable groups of women and children in Cambodia. This work has been mainly undertaken with MSALVA in urban areas, and has focused especially on urban street women and children. UNICEF has also supported Women in Development (WID) programmes in 17 provinces, maternal and child health information systems and orphanages.

In 1995 UNICEF reviewed its programmes for the period 1996-2000 and intended to move more to a Community-Based Social Action (CBSA) approach through Village Development Committees (VDCs) that will "pay particular attention to the most vulnerable groups in both rural and urban areas, who risk exclusion from the benefits of development, or are victims of the economic changes caused by the transition to a market economy" (UNICEF, undated b). This approach should focus more on household and village food security, diversification of small-scale food production systems, measuring and reducing malnutrition, income-generation schemes, credit, community/household food security (e.g. rice banks) and should "strengthen food-related assistance programs so that they reach the most insecure population without disrupting local food economy, local food habits, local food production and marketing

systems” (p.9). Part of these efforts will concentrate on institution-building amongst provincial and other local authorities to develop information and data collection systems “for food and rural water supply, using household food and water security monitoring” (p.10), and through the NNPA and CARD to support and promote the capacities of technical ministries in food security interventions.

World Food Programme (WFP)

The World Food Programme (WFP) is the main international organization in Cambodia currently involved with national, regional and local food availability, and compensatory distributions of food to relieve shortfalls. From 1979 to 1992 WFP was mainly involved in food relief to the Cambodian refugee camps in Thailand. From 1989 on, however, this agency started food-for-work programmes, initially working primarily with the UNICEF Family Food Production Programme. WFP supplied food aid to returnees from the Thai camps in 1992 and 1993 (WFP, 1994a). Since 1994 WFP has adopted a mixed programme that has focused mainly on improving village and household-level food security in rural Cambodia through the use of food aid in support of rehabilitation activities, food aid to public sector institutions (hospitals, orphanages, special feeding centres and day care centres), emergency relief operations, as well as grass-roots training activities and credit programmes using rice and rice seed banks. Although WFP has been working closely with the Cambodian Red Cross (CRC) and local government, and initially with the Ministry of Rural Development, links with other government departments have been slight to date, and are only gradually being established. WFP is also progressively operating more through national NGOs, and reducing the involvement of international NGOs.

In order to focus on village and household-level food security, WFP undertook a year-long poverty-mapping exercise in 1993 (WFP, undated), from which target areas were selected in 129 communes in 57 districts in 16 provinces (WFP, 1994b). During 1994 food aid was distributed to just over 483,000 people in these areas through community-based food-for-work projects and emergency relief. This poverty-mapping calculated the average number of “deficit months” per family in each commune. Given the unreliability of some of the data, this calculation was considered an indicator and not a formula for assessing exact need. Nevertheless, all the communes surveyed which showed an average rice deficit of six months or more and high rates of recurrent rural debt were selected as target areas. Some communes were selected because they had large populations of returnees or internally displaced people, who lacked the means for agricultural production or income generation.

The families that were targeted included ones with households headed by widows, handicapped men, the infirm and the elderly, as well as orphans. Village level surveys were undertaken to identify and register the households and individuals regarded as vulnerable, but membership of one of the vulnerable target categories did not automatically mean that these persons received WFP assistance. The selection was further refined by “focused group interviews” with local villagers in over 450 villages. In villages where a substantial proportion of households was considered to be food-deficit, the whole village was covered by the distribution. Food assistance was provided only in the pre-harvest “lean season” (July to December) to avoid diverting labour from agricultural activities, and was limited to a three-month supply, on average. In 1993, some of the poorest people were still missed in the selection process, usually because they were not well-known by the village leadership. Using groups of people from the village to identify the poorest seemed to work best, but actually reaching the poorest proved more difficult (see Bernander et al., 1995:50).

In the 1994 survey (WFP-Cambodia, 1995a) the communes that were assessed were ranked in order of vulnerability. Food aid has been channelled to these vulnerable

communes through food-for-work projects often administered by NGOs or local authorities, rather than through national government relief or rehabilitation channels, which are very weak. A 1994 WFP evaluation questioned the extent to which their supports were reaching vulnerable members of the community, and found that households lacking labour missed out on food-for-work schemes (Bernander et al., 1995:50). As the shortages of food started becoming more apparent in May 1995, the WFP began loosening its criteria (at least unofficially) as to what constitutes “work”, to ensure that food at least gets distributed in certain areas. The agency has also had difficulties generating sufficient appropriate food-for-work schemes and administering them. Free distributions of food by political leaders in certain areas have sometimes had negative effects on the efforts of the WFP to link food distribution with economic activity.

Anticipating a national shortfall of rice of 300,000 tons for 1995, the Cambodian government appealed to foreign aid donors for support in late 1994. In December 1994 the WFP undertook a survey of 775 villages in 15 provinces to assess the most affected areas and verify the extent of the crop damage (WFP-Cambodia, undated). The WFP sought almost 95,000 tons of food aid (of which 90,000 tons would be rice) for 1995 to cover these needs, and by August 1995 had confirmed contributions of 87,600 tons. Of the rice to be provided over the period of January to September 1995, 68 per cent was scheduled for food-for-work projects on road rehabilitation and pond digging. Of the rice provided in this period, 90.6 per cent was scheduled for food-for-work projects. The WFP has procured the required quantities from different donors and distributed them through different systems.

Although WFP occasionally makes local purchases of food, particularly rice, for redistribution, it is wary of distorting prices in local markets through such actions. This can sometimes happen, but the impact of either their local purchases or distributions does not appear to have had a very significant effect on local prices to date. Some criticism of food-for-work schemes has been voiced of late. Food-for-work schemes as currently undertaken in Cambodia are seen as “stop-gap” measures, unlikely to contribute much to longer term poverty alleviation. Certain development agencies have felt that food-for-work schemes have distorted labour markets and inhibited other community development approaches. Some people want the work and income, rather than food, which suggests that a public works programme for cash would be more appropriate in some areas. This would save on internal transport, storage and handling (ITSH) costs, which currently amount to about US\$ 71/ton (CDC/CRDB, 1995).

WFP is primarily responding to **temporary** food insecurity, but also considers the more **chronically** food-insecure areas and individuals. While quantitative data on food insecurity need to be supplied to estimate requirements and justify them to donors, both the government and WFP are aware of the limitations and weaknesses of such figures.

International Labour Organization (ILO)

The International Labour Organization (ILO), which has been operating in Cambodia since 1992, has been developing both shorter term and longer term employment generation schemes. ILO worked initially with rehabilitation employment generation, particularly through programmes promoting labour-based infrastructural employment, vocational training and micro-enterprise training and support. These programmes were directed towards returning refugees, internally displaced people, demobilized soldiers, women-headed households, people with disabilities and other people affected by the war. Poverty alleviation, but not specifically food security, has been a major objective of these supports. As a result of the rural feeder road programme the number of food-deficit households in Siem Reap was estimated to have decreased from 82.6 per cent to 73.9 per cent and the duration of food-deficit periods was reduced in Takeo (see Shone,

1994). It is not clear, however, precisely why this happened. ILO has assessed the food security impact of some of their projects without differentiating the impact on particular food-insecure groups.

ILO support for small enterprises, linked with ACLEDA, has increased the profits of the businesses concerned, but the most vulnerable groups were often unable to sustain their credit repayments, and have tended to drop out or be excluded from the programmes. Nevertheless, a number of people, particularly widows and women who head households, have benefited from the scheme. The vocational training programme only resulted in 46 per cent of trainees subsequently gaining employment, but was successful in duck-raising and mushroom-growing schemes, particularly with widows and young girls. Longer courses tended to have higher drop-out rates. Frog/eel-raising, food processing and pig-rearing have also been encouraged through training courses. Certain “vulnerable” groups, particularly women, have been targeted in this programme (although only 38 per cent of trainees were women as opposed to the target of 55-60 per cent) (ILO/UNDP, 1995). Some skill provision (e.g. welding) was in excess of market demand, and at times the provision of skills has not been clearly matched to labour market demands, despite employment and business opportunity surveys by the National Training Secretariat (NTS).

CARERE

Another major actor, operating with UNDP support, is CARERE, the Cambodia Resettlement and Reintegration Programme, that was renamed SEILA in 1996. Started in 1992 as an emergency response to facilitate the resettlement and reintegration of returnees and internally displaced persons, CARERE has gradually shifted its concern towards longer term issues of socio-economic development and capacity-building. Particular attention is focused on alleviating rural poverty through decentralized planning and financing of participatory rural development (UNDP, 1995). CARERE has been operating mainly in the north-western provinces, but is also beginning to work in the north-eastern provinces. CARERE focuses on “target zones” within the areas in which the project is operating. One of the factors influencing the choice of target zones is food security. CARERE is also trying to target vulnerable groups, namely children, IDPs, women-headed households, the disabled and the unemployed landless, but has been finding it very resource-consuming to do so. It has proved difficult to identify the most economically vulnerable groups and has consumed much staff time and back-up resources. As yet CARERE has not developed a monitoring and evaluation system that can indicate project impacts on the food security of different groups. CARERE partners are primarily local government and village groups. CARERE is following the government’s food security objectives by placing considerable emphasis on rice productivity, prioritizing the construction and repair of roads linking major rice-growing areas and markets, and developing high-value crops to increase rural incomes.

Food and Agriculture Organization of the United Nations (FAO)

Since establishing a presence in Cambodia in 1992, most FAO support (in monetary terms) has been in the supply of fertilizer and other inputs. In 1994 the FAO organized the Agricultural Development Options Review (ADOR). This exercise drew together existing knowledge on agricultural development and initiated policy discussion on a more informed basis, but still has not led to clear policy formulation by MAFF in a number of areas. The FAO also supplied technical support on agricultural statistics, and assisted forestry legislation and forestry inventory preparation. Work directly related to food security was limited to an initial assessment of food security in 1992 (Muller, 1992). In late 1995, however, the agency was considering certain supports for food

security and providing technical assistance on nutrition planning. The technical assistance to agricultural statistics is contributing indirectly to better possibilities for assessing food availability.

European Union (EU)

The EU has been operating in Cambodia since 1991 and has been involved in some rural development in the Battambang and Siem Reap areas, often working through NGOs. The EU is currently moving towards working directly with government. Over the January 1995 to June 1997 period US\$ 48 million (37 million ECU) were earmarked for investment in the European Rehabilitation Program in Cambodia (PERC) in the six provinces of Takeo, Prey Veng, Kompong Speu, Svay Rieng, Kompong Cham and Kompong Chhnang, particularly in irrigation network improvements, agricultural training, drinking water supplies, cottage industries and major credit schemes. This programme is seen as primarily one of continued rehabilitation and a preliminary action to subsequent longer term programmes. It does not comprise a specific food-security monitoring and evaluation component, but is directing supports to producers with under 1 hectare of land in areas where further land is not available. The programme is only operating in secure districts for the moment, which presents problems in three of the provinces, where there is conflict. Where possible, the programme aims to encourage diversification of food production. A regular information base is being built up, although baseline surveys are not being undertaken.

The EU's "first jolt" approach, which is aimed at getting some initial development support operating, has recently been criticized by longer established NGOs as impractical, particularly in relation to rural credit, which usually takes longer to establish (see **Phnom Penh Post**, Vol. 4, No. 18, 1995). The EU is also working with the WFP in distributing about 20,000 tons of rice in these provinces through food-for-work schemes organized by the WFP.

World Bank and International Monetary Fund

The International Monetary Fund (IMF) intervenes primarily at a macro-economic level. In its policies and policy prescriptions food security is normally not considered, except sometimes as an indirect consequence of macro-economic policy prescriptions. In May 1994 an Enhanced Structural Adjustment Facility (ESAF) three-year loan of about US\$ 120 million was provided, requiring the implementation of tight fiscal and monetary policies (IMF, 1994a; IMF, 1994b).

In 1994 the World Bank approved a US\$ 63 million soft loan for essential repairs and rehabilitation of infrastructure, agriculture, social services and budgetary support. In 1995 the World Bank approved a US\$ 17 million loan for technical assistance for public expenditure management and civil service reform, as well as a US\$ 40 million credit for import purchases and balance-of-payments support. During 1995 the Bank began an assessment of the agricultural sector that is due to be completed in 1996, in anticipation of an agricultural productivity and rural development project in 1997 in the south-east, with a strong emphasis on institutional capacity-building, worth US\$ 25 million. It also intends to undertake a Poverty Assessment in 1996, and an Infrastructure Rehabilitation Project in 1997, that will focus primarily on river and rail transport, as well as water supplies. The World Bank programme in Cambodia over the period 1995-1997 is likely to amount to US\$ 105 million (Sida, undated:33; McAndrew, 1996:40). Although food security is beginning to be considered in this context, it has not yet received the focus it has been given in Bank programmes in some other low-income countries emerging from war (e.g. Mozambique).

Asian Development Bank

From July 1993 on, the Asian Development Bank provided a Special Rehabilitation Assistance Loan for US\$ 67.7 million for agriculture, transport, energy and education. This was followed by other loans of US\$ 28.2 million in 1994 for power rehabilitation, and US\$ 40 million in 1995 for capacity-building, rural infrastructure rehabilitation and basic skills rehabilitation projects. The Bank has also provided grants for technical assistance. Food security has not been a specific focus of their support to date, but future efforts are intended to expand income-generating and employment possibilities for women and poorer households, and to promote self-help and group activity through NGOs.

Japanese International Cooperation Agency (JICA)

Although Japan has been the largest bilateral donor to Cambodia in financial terms in recent years, much Japanese aid has been for road and port construction, urban water and electricity supplies, telecommunications and health centres. In terms of food security, efforts have primarily been in relief rice provision through the WFP and two projects to increase food production in Kompong Speu and Takeo provinces. The latter mainly consist in the provision of fertilizers, agricultural machinery and equipment, but with some technical assistance in rice cultivation, public health and income-generating schemes. JICA has little back-up capacity in relation to food security, and although the projects are geared to help food production and rural income-generation, little effort has been made to assess their food security impacts.

The United States Agency for International Development (USAID)

The USAID bilateral programme was only established in 1994. Before that, most of the aid was channelled through NGOs and contractors. The current programme focuses on stabilizing population growth, health needs, road rehabilitation, supports to more democratic functioning of Cambodian institutions, and broad-based economic growth. As such, most of these efforts are likely to have only indirect influences on food security. Proposed future assistance includes environmental management, rural roads and infrastructure, and NGO co-financing, which may have links with food security (McAndrew, 1996:45).

Australian International Development Agency (AusAID)

Australian bilateral assistance was resumed in March 1992, building on the resettlement and rehabilitation efforts initiated by Australian NGOs, some of whom had received Australian government financing for their Cambodian operations (Poussard, 1995). Besides support to bridge reconstruction, immunization, water supplies and language training, the Australian aid agency has also been supporting the activities of IRRI in Cambodia in relation to rice development. In 1995 more technical assistance was provided to MAFF, as part of a broader effort to promote institution-building. Food aid has also been provided, and some assistance is being directed towards poverty alleviation in rural and urban areas, particularly that channelled through NGOs. In general, however, the Australian aid programme has not had a specific food-security focus.

Swedish International Development Cooperation Agency (Sida)

Sweden began to assist Cambodia in 1979, providing emergency relief aid for displaced people within Cambodia rather than for refugee operations in Thailand. In the late 1980s support was extended to the UNICEF programmes, the FAO fertilizer programme and the UNDP Trust Fund for physical infrastructure rehabilitation. After 1991 most of the aid was channelled through United Nations agencies and multilateral financial institutions. Funds have also been channelled to CDRI for human resource development. In mid-1995 Sida embarked on an 18-month country programme; the primary areas of focus were rural development (primarily through CAREERE), primary education, demining, strengthening the energy sector (a third of the aid), and institution-building (mainly through UNICEF and CDRI). There is no explicit focus on food security, although the focus on increasing food production has had a food security aim.

German Agency for Technical Cooperation (GTZ)

Germany is one major bilateral donor that has recently increased its co-operation with Cambodia (GTZ, 1995). Besides supports to the Land Title Department of MAFF, GTZ is beginning to plan and develop a large rural development programme in Kompong Thom province (DM 17 million) that includes the establishment of cow and rice banks, and in 1995 commenced an Integrated Food Security Project in Kampot Province that is designed to improve the situation of vulnerable target groups by agricultural development, enhancing secondary income sources, providing health and nutrition education, and introducing small village infrastructure projects. The agency is also beginning to support the Master Plan for Vocational Training, and is giving continued support to occupation-oriented non-formal education and skill training. All of these activities are likely to have an impact on food security in the areas in which they are operating.

The Netherlands

Dutch aid since 1992 has primarily focused on emergency humanitarian relief aid and rehabilitation. It has prioritized rural areas and support to local communities and income-generation in those areas. The Netherlands' government is also supporting capacity-building and institutional development. Aid has primarily been channelled through multilateral agencies (e.g. CARERE, UNDP/ILO, CMAC, FAO and UNICEF), although a number of NGOs have also received support.

Other major international agencies and donors

Other major bilateral donors to Cambodia in the last two years have been France, Denmark, the United Kingdom, Canada, and the Russian Federation. Danish assistance is becoming more focused on longer-term development activities, amongst which poverty alleviation has a high priority. A direct focus on food security has developed through support for the UNRISD/CDRI study on food security. British aid has primarily focused on health and education, with only marginal consideration of food security issues. Much Canadian aid has been channelled through the Cambodia-Canada Development Programme (CCDP), involving 13 NGOs concerned with developing the management and technical capacity of Cambodian institutions at the local level, with specific supports going to Pursat Province, and to health, education and agriculture. Russian aid has been primarily to education, but hardly touches on food security aspects of education.

◆ 7.3 Appendix 3: Figure and Tables

◆ Bibliography

- ADOR 1 (1994)
Nutrition and Food Security Considerations, Working Paper for Cambodia: Agricultural Development Options Review (Phase 1).
- ADOR 2 (1994)
Agricultural Development Options Review Project — Phase 2, C. Virata and Associates and Development Alternatives Inc., October.
- Ahlars, Rhodante and Sonja Vlaar (1995)
Up to the Sky: A Study on Gender Issues in Irrigation in Cambodia in the Provinces of Takeo and Prey Veng, SAWA, Ede, February.
- Alto-Senga, Marieta (1993)
Food Security Survey on Three PADEK Project Areas in Southeastern Cambodia, PADEK, Phnom Penh, July-September.
- _____ (1994)
Food Security and Nutrition Survey on Selected Urban Poor Communities in Phnom Penh, PADEK, Phnom Penh, March-May.
- Arace, Jill and Ratha Tan (1994)
Food Security Preparatory Study, mimeo, CDRI, September.
- Azad, Nandini (1994)
Sisters of Hope: A Monograph on Women, Work and Entrepreneurship in Cambodia, UNDP/ILO, March.
- Be, Kalyanna and Kosal Ros (1993)
Rice and credit systems: A case study of Chbar Mon and Samraong Tong districts of Kampong Speu Province, Survey Practice Report 10-12 March 1993, CDRI, Phnom Penh.
- Bernander, Bernt et al. (1995)
Facing a Complex Emergency: An Evaluation of Swedish Support to Emergency Aid to Cambodia, Sida, Stockholm, March.
- Bosgra, Magrieta (1994)
Kandal Agricultural Development Project, Internship report, World Vision International, Phnom Penh, May.
- Cameron, Baden and Peter Twyford-Jones (1995)
Marketing and Product Development, AusAID/MAFF, Phnom Penh.
- CDC/CRDB (1995)
Development Cooperation Report (1994/1995), CDC/CRDB, June.
- CDC/MoEYS (1994)
Investment Framework Education Sector 1995-2000, Phnom Penh, December.
- CDRI (1995)
CDRI Newsletter, No. 10, Phnom Penh, September.
- Chhay, Neth (1994)

Historical Overview of the Khmer Economy and Industrial Evolution,
Phnom Penh, December.

Curtis, Grant (1990)

Cambodia: A Country Profile, Sida, Stockholm.

CWS (1994)

Kien Svay Reintegration and Community Development Project: A Survey Report, Church World Service, October.

Davenport, Paul, Joan Healy and Kevin Malone (1995)

Vulnerable in the Village: A Study of Returnees in Battambang Province, Cambodia, with a Focus on Strategies for the Landless, OSB/WV Australia.

Delvert, Jean (1961)

Le Paysan Cambodgien, Mouton & Cie, Paris.

Demaine, H., F. Lukey and D. Toole (1992)

Assessment Report of UNICEF — Assisted Family Food Production Project, UNICEF, Phnom Penh, June.

EIU (1994)

Country Report — Indochina: Viet Nam, Laos, Cambodia, Economist Intelligence Unit, London, Third Quarter.

FAO (1989)

Effects of Stabilization and Structural Adjustment Programmes on Food Security, FAO Economic and Social Development Paper No. 89, Rome.

_____ (1994)

Cambodia: Agricultural Development Options Review — Phase 1, (3 vols), FAO Investment Centre, Rome, April.

_____ (1995)

Food Outlook, No. 8/9, GIEWS, Rome, August/September.

FAO/WFP (1996)

Report of the FAO/WFP Crop and Food Supply Assessment Mission to Cambodia — 14-27 January 1996, Rome, March.

Global Witness (1995)

Forests, Famine and War — The Key to Cambodia's Future, London, March.

GTZ (1995)

“Germany and Cambodia: Cooperation for development”, Supplement to **Phnom Penh Post**, Vol. 4, No. 12.

Haddad, Lawrence et al. (1995)

More than Food is Needed to Achieve Good Nutrition by 2020, IFPRI, 2020 Brief 25, Washington D.C., August.

ILO/UNDP (1994)

Labour and Development in Cambodia, Phnom Penh.

_____ (1995)

**Employment Generation Programme Cambodia — Progress Report,
Vocational Training for Employment Generation, February.**

IMF (1994a)

**Cambodia — Enhanced Structural Adjustment Facility — Policy
Framework Paper 1994-1996**, 14 April.

_____ (1994b)

IMF Economic Reviews No. 8 — Cambodia, IMF, Washington D.C.,
August.

Kannan, K.P. (1996)

**Economic Reform, Structural Adjustment and Development in
Cambodia**, International Round Table on Structural Adjustment Programme
in Cambodia (24-26 January 1996), CDRI, Phnom Penh.

Keat, Chhon (1995)

“Food security in Cambodia”, **CICP Newsletter**, No. 8, July-August.

Kennedy, A. and T. Chhoeun (1994)

An Evaluation of the Women’s Cow Bank Project — August 1994,
IWDA, Phnom Penh, October.

KoC (1994a)

National Programme to Rehabilitate and Develop Cambodia, Phnom
Penh, February.

_____ (1994b)

Socio-economic Rehabilitation Plan 1994-1995, Phnom Penh.

_____ (1995)

**Implementing the National Programme to Rehabilitate and Develop
Cambodia**, Phnom Penh, February.

Lando, R.P. and S. Mak (1991)

Srey Ampal: A Baseline Survey of Dry Season Rice in Cambodia, IRRI-
Cambodia Project, Phnom Penh, February.

_____ (1994)

**Cambodian Farmers’ Decisionmaking in the Choice of Traditional
Rainfed Lowland Rice Varieties**, IRRI Research Paper Series No. 154,
February.

Ledgerwood, Judy (1992)

Analysis of the Situation of Women in Cambodia, UNICEF, Phnom Penh.

Ludowyk, P.A. and M. Blatti (1995)

**Overview of Kompong Speu Results and their Relationship to Banteay
Meanchey and Phnom Penh — Results for Projecting National Data for
Prosthetic and Orthotic Needs**, American Red Cross — Cambodia, paper
presented at the International Landmines Conference (Phnom Penh, 2-4 June).

MAFF (1995)

**Report on the Pilot Livestock Sample Survey Conducted in Takeo,
Kandal and Prey Veng Provinces**, DPS, Phnom Penh, August.

MAFF/DPS/FAO (1996)

- 1995 Rice Crop Pilot Survey — Technical Report**, Phnom Penh, February.
- Mandac, A.M., C. Chin and P. Say (1993)
Changes in Rice Farming in Cambodia, paper prepared for the 10th Annual Scientific Conference of the Federation of Crop Science Societies of the Philippines (Aklan, 10-14 May).
- Marom, Ungsa and Vanhom Hean (1994)
Country Report: Kingdom of Cambodia on Vegetable Production, Research and Policy, Department of Agronomy, Phnom Penh, November.
- McAndrew, John P. (1996)
Aid Infusions, Aid Illusions: Bilateral and Multilateral Emergency and Development Assistance in Cambodia, 1992-1995, CDRI, Working Paper No. 2, Phnom Penh, January.
- Mehta, Mona (1993)
Gender Dimensions of Poverty in Cambodia: A Survey Report, OXFAM, Phnom Penh, July-August.
- Ministère de la Santé (1995)
Manuel d'instruction pour le nouveau système d'information sanitaire au Cambodge, Unité de planification et de statistiques, Phnom Penh.
- Ministry of Agriculture (1994)
Rural Credit Seminar: Permanence and Sustainability of Credit Programmes in Cambodia, Phnom Penh, 27-28 September.
- MoH/WHO (undated)
Health in Cambodia: Development Goals and Plans 1995-97, information pack.
- MoH (1994)
National Health Development Plan 1994-1996, June.
- _____ (1995)
A Summary on Protocol of KAP Survey on Safety of Street-vended Foods, Department of Health Education and Hygiene, 20 February.
- MoP (1995)
Proceedings — National Nutrition Workshop, Phnom Penh, 20-22 June.
- MRD/GTZ (1995)
Regional Framework Plan: Kampong Thom Province, Phnom Penh/Kampong Thom, 30 April.
- MRD/UNDP/UNOPS (1995)
Briefing for Donors on the 1995 Workplan of the CARERE Area Development Programme, Phnom Penh, 16 February.
- MSALVA (1995)
Future Directions for Social Affairs Within the Ministry of Social Affairs, Labour and Veteran Affairs for the Year 1995 and the Years 1996-2000, Phnom Penh, February.
- Muller E. (1992)

Cambodia: Food Security and Economic and Social Reconstruction, FAO, Rome.

Mysliwiec, Eva (1988)

Punishing the Poor: The International Isolation of Kampuchea, OXFAM, Oxford.

National Assembly of Cambodia (1993)

The Constitution of the Kingdom of Cambodia, Phnom Penh.

Nepote, Jacques et Marie-Sybille de Vienne (1993)

Cambodge, laboratoire d'une crise. Bilan économique et prospective, CHEAM, Paris.

NIS (1994)

Report on the Socio-economic Survey — 1993/1994 Cambodia (First Round), Ministry of Planning, Phnom Penh, August.

OSRO/FAO (1991)

Cambodia — Report of the FAO Mission — Assessment of the Agricultural Situation, FAO, Rome, July.

PADEK (undated)

PADEK's Development Programme in Cambodia: Three-year Plan 1994-1996, Phnom Penh.

Phnom Penh Post

Vol. 3, No. 26, 1994; Vol. 4, Nos. 3, 4, 10, 12-16, 26, 1995.

Po, Samnang (1994)

Socio-economic and Demographic Characteristics of Mothers of Malnourished Children in Cambodia, Master's thesis, Khon Kaen University, Thailand.

Poussard, Wendy (1995)

The Dancing Road — Australian Catholic Relief in Cambodia, ACR, North Sydney.

Ratner, Blake D. (1995)

NGO Approaches to Agricultural Extension in Cambodia: Developing Participation in Context, Cornell International Institute for Food, Agriculture and Development, January.

Shams, Numa, Yon Kim and Eng Tong Hoet (1994)

Farming System — Province Pursat, CCDP/Provincial Department of Agronomy, Pursat, February.

Shawcross, William (1994)

Cambodia's New Deal, Carnegie Endowment for International Peace, Washington D.C..

Shone, Mike (1994)

Labour and Development in Cambodia, ILO Cambodia, Phnom Penh.

Sida (undated, a)

Developing Rural Cambodia, Part 2: Sector Papers, Dept. for Asia, Sida.

SSKK (1995)

A Message from the General Assembly Following the Founding Congress of the Samakum Sankrus Kakesekor Kampuchea, 21-24 February.

SSWA (1995)

Women: Key to National Reconstruction, Secretariat of State for Women's Affairs, Phnom Penh, March.

Stone, Timothy, Beatrice Senemaud and Veng Thai Ea (1989)

"Return to Normalcy: Nutrition and Feeding Practices in Phnom Penh, Cambodia", in **Ecology of Food and Nutrition**, Vol. 23.

Tichit, L. (1981)

L'Agriculture au Cambodge, ACCT.

Tickner, Vincent, Kosal Ros and Savora Tia (1995)

An Introduction to the Food System in Cambodia and Related Food Security Considerations, mimeo, CDRI, Phnom Penh September.

UNDP (1995)

Project Document, CAREERE 2, UNDP, Phnom Penh.

UNDP/ILO (1994)

Project Performance Evaluation Report — Labour-based Infrastructure Rehabilitation Project CMB/92/008, Phnom Penh, July.

UNDP/OPS (1995)

CAREERE Area Development Programme: 1995 Workplan Vol. 1: Overall Workplan, Phnom Penh, 18 January.

UNICEF (undated a)

Nutritional Status and Food Practices in Rural Areas: Food and Nutrition Surveys in 12 Villages of 4 Provinces in 1993-1994, UNICEF-Cambodia, Phnom Penh.

UNICEF (undated b)

Country Programme Exercise — 1996-2000 Country Programme.

UNICEF (1995)

Situation Analysis of Children and Women in Cambodia (draft), Phnom Penh, 30 June.

UNIDO (1995)

Establishment of a Food Safety and Quality Control System, Project Document XX/CMB/95/XXX.

Utting, Peter (ed.) (1994)

Between Hope and Insecurity: The Social Consequences of the Cambodian Peace Process, UNRISD, Geneva.

van Iterson, G. (1994)

Memo to NOVIB on PADEK workshop on food security of August 1994, mimeo, 22 August.

Vickery, Michael (1986)

Kampuchea — Politics, Economics and Society, Lynne Rienner, Boulder, Colorado.

Walker, Gaylord L. (1961)

Rice Production and Marketing in Cambodia, USOM/Cambodia, September.

World Bank (1995)

Cambodia — Rehabilitation Program: Implementation and Outlook, East Asia and Pacific Region, Country Department 1, February.

WFP (1994a)

Summary Evaluation Report on WFP Assistance to Cambodia During the Period 1992-94, June.

_____ (1994b)

Integrated Food Aid Programme for the Rehabilitation of Cambodia: Target Communes by District.

WFP (undated)

WFP Food Aid Programme for Rehabilitation in Cambodia 1994-95: Poverty Mapping Exercise, mimeo.

WFP-Cambodia (1994)

Vulnerable Groups Assistance: 1993 Programme Report, Phnom Penh, August.

_____ (undated)

Wet Season Rice Harvest Survey 1994/95.

_____ (1995a)

Target Commune List 1995, Phnom Penh, 21 April.

_____ (1995b)

Monthly Newsletters, Vol. 1 Nos. 1-6, March to August.