

# **Introduction to the Food Insecurity Project in Four Mekong Region Countries**

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This introductory section explains a research project investigating food insecurity in four Mekong region countries – Lao PDR, Myanmar, Thailand and Vietnam. These countries were selected for investigation because they are part of the East-West Economic Corridor (EWEC), which is an initiative supported by the Asian Development Bank (ADB) as part of its strategy to promote economic development in the region through promotion of trade creation, cluster development and geographic complementarity.

The project called for 200 structured questionnaires to be collected in each of the four countries, half of which should be collected in urban regions and half in rural regions and half of those in EWEC covered areas and half outside the EWEC region. The completed sample exceeded the initial specifications and 1,057 completed questionnaires have been used for the overall analysis. The project used the externally-validated Food and Agriculture Organization (FAO) of the United Nations' Food Insecurity Experience Survey (FIES) as the means of investigation.

Food insecurity was found at a higher level than might be expected, with more than 50% of the overall sample reporting insecurity at the least severe end of the scale. However, the prevalence of food insecurity tended to decline as the severity of items increased. These changes are quite strongly associated with (among respondents) low levels of education, low levels of income and lack of access to land. There are some country-level relationships which do not comply with the expected relationships.

Evidence from Thailand in particular shows that food insecurity remains an important urban phenomenon, despite it having been

considered to have become overwhelmingly a rural phenomenon in recent years. However, various factors, including rural-urban migration and the policies adopted by the current Thai regime vis-à-vis working people have made precarity an increasingly obvious manifestation of economic change.

Recommendations are drawn from the analysis and the path towards policy prescriptions foreshadowed.

### ***Note on Exchange Rates***

Throughout this report, the following exchange rates (measured at October 6<sup>th</sup>, 2016) are used when required:

1 US \$ =	8,130 Lao kip
	1,271 Myanmar kyat
	34.9 Thai baht
	22,302 Vietnamese dong

Source: [www.xe.com](http://www.xe.com)

## 1. Introduction

Food security was defined by the Food and Agriculture Organization (FAO) of the United Nations (UN) as a situation in which all of the people of a country, all of the time, have access to sufficient safe and nutritious food to meet their dietary needs and which meets their food preferences for a healthy and active life (FAO, 1996). It does not matter whether the food is produced in the same country or not but it does mean that the country involved has sufficiently efficient distribution networks and market mechanisms to ensure that food reaches everybody when it is required (Pinstrup-Anderson, 2009).

Food insecurity, therefore, may be found in a country or area of land in which sufficient good quality food is not available for all people on a permanent or temporary basis. This may be for a number of reasons, including natural disaster, political or military disorder, famine or market failure. The four countries studied in this project – Lao PDR, Myanmar, Thailand and Vietnam (LMTV) – are all vulnerable to natural disasters (e.g. Cyclone Nargis in 2008 and the floods of 2011), political disorder (e.g. military coups in Thailand in 2006 and 2014) and market failure. According to the FAO (2015:3), some 795 million people are currently undernourished globally, which is a reduction of 167 million over the past decade and 216 million since 1990-2 (see Table 1 below).

The decline in undernourishment in developing countries would be more marked but for the increase of more inequitable growth and political instability in regions such as central Africa and western Asia (*ibid.*). Economic growth is important for food insecurity but it must be inclusive in nature and provide opportunities for smallholders in particular to be able to participate in regional and international markets on a relatively equitable basis. Research in the region (e.g. Southiseng, Walsh & Vilaypur, forthcoming) has demonstrated the lack of market development in the LMTV region. Southeast Asia in general is one of the regions of the world in which undernourishment as a whole has been declining more quickly than the rate of child

underweight prevalence, indicating, according to the FAO (2015), “... room for improving the quality of diets, hygiene conditions and access to clean water, particularly for poorer populations groups.” One of the problems that the governments involved face is the lack of resources and technical capacity for building the kind of infrastructure required to bring about these developmental goals. However, the Asian Development Bank (ADB) has pioneered the Asian Highway Network, which aims to link all the principal places of production and consumption across the continent by road and rail. In addition, the ADB has sought to pursue the principle of turning the Mekong region from a battlefield to a marketplace by creating, inter alia, two economic corridors, as discussed below.

<b>Number of 1990-2 2000-2 2005-7 2010-2 2014-6* undernourished (millions) and prevalence (%) of undernourishment</b>					
World	1,010.6 (18.6)	929.6 (14.9)	942.3 (14.3)	820.7 (11.8)	794.6 (10.9)
Developed regions	20.0 (<5.0)	21.2 (<5.0)	15.4 (<5.0)	15.7 (<5.0)	14.7 (<5.0)
Developing regions	990.7 (23.3)	908.4 (18.2)	926.9 (17.3)	805.0 (14.1)	779.9 (12.9)
Asia	741.9 (23.6)	636.5 (17.6)	665.5 (17.3)	546.9 (13.5)	511.7 (12.1)
Southeast Asia	137.5 (30.6)	117.6 (22.3)	103.2 (18.3)	72.5 (12.1)	60.5 (9.6)

**Table 1:** *Undernourishment around the World, 1990-2 to 2014-6; source: FAO (2015:8) (data for 2014-6 refer to provisional estimates)*

### 1.1. The East-West Economic Corridor

Sassen (2014:9) has argued that one of the principal forces driving globalization and economic change in the world is the “... material development of growing areas of the world into extreme zones for key

economic operations.” This reconfiguration of space may be seen in the creation of special economic zones (SEZ) which, on the one hand, can represent a powerful generator of jobs and income for local people and migrant labour but, on the other hand, can be used to engineer social, cultural and economic displacement (Cook, Bhatta & Dinker, 2013). Displacement, of course, is a well-known phenomenon in the Greater Mekong Subregion Countries (Cambodia, Lao PDR, Myanmar, Thailand, Vietnam and Yunnan Province and Guanxi Zhuang Autonomous Region of the People’s Republic of China), of which Lao PDR, Myanmar, Thailand and Vietnam (LMTV) is a subset, where it has often accompanied the building of dams (e.g. Simpson, 2013) and which may have had mixed economic results for people resettled as a result (Dalasavong, Southiseng & Walsh, 2015).

However, there are many powerful arguments for designating specific geographical areas for particular attention and investment. Since the time of the economist Alfred Marshall (1890), it has been known that fostering proximity of economic actors will provide benefits because there will be an inevitable but unpredictable series of interactions between them centring on ‘something in the air.’ That is, mutual interests will promote conversations, shared experience and the creation of new processes and procedures and the spread of best practices. This is the basis of the cluster concept that was first expressed by Porter (1998) and which has spread around the world. These advantages are summarized under the categories of pecuniary externalities (e.g. labour policy and the availability of intermediate inputs) and pure technological spillovers (Hall, 1999:35).

The reasons for encouraging inward investment overall may be expressed as follows:

- Job employment generation. Investment in new production facilities, primarily in the manufacturing sector, will both create jobs directly and, also, indirectly as the facilities and their employees will require support services in terms of

accommodation, health, education, leisure and retail services and so forth;

- Technology transfer. Inward investment entails costs that must be recouped through high future performance that requires superior competitiveness to local companies which is often based on some form of advanced technology. It can be hoped that at some stage and with the provision of suitable incentives, that technology will be transferred to the domestic economy so that local companies can take advantage of it;
- Industrial deepening. Countries encouraging inward investment often have individuals and companies which are capable of participating in international value chains and supply chains but do not yet have the capability, resources, skills or knowledge to do so. It may be hoped that investing companies may create relationships with local actors and help to develop them so that they can reach the required standard (e.g. for consistency of quality and distribution) on a win-win basis.

These potential benefits are available to any investor within a specific area and it is customary for the legal regime in that area to forego any principle of preferential treatment for nationally-owned firms. This enhances investor confidence and helps prevent situations in which local firms can be more competitive than international rivals despite inferior performance.

The economic corridor approach was created to take advantage of those benefits derived from the new concepts of economic geography described above and combine them with regional integration and enhanced cross-border cooperation:

“Economic corridors capitalize on efficient multimodal transport networks within a defined geography with the help of quality infrastructure, logistics, distribution networks that link production centres, urban clusters, and international gateways. Equally important for transforming transport

corridors into economic corridors is an enabling policy framework that eases doing business and non-tariff measures to facilitate trade (De & Iyengar, 2014).”

The benefits of such corridors are claimed to be:

- Removing infrastructure bottlenecks;
- Improving access to markets;
- Stimulating trade and investment and
- Boosting productivity and efficiency through associated network externalities and agglomeration effects (*ibid.*).

It is also claimed that economic corridors can contribute to inclusive growth because it can link less developed cities and regions with more developed regions and market opportunities (*ibid.*). However, it might also be observed that a corridor could contribute to inequitable development if it includes a more advanced region that has organizations capable of taking advantage of other areas because of privileged access to better commercial conditions. It is also necessary for an economic corridor to take advantage of an existing functioning transport corridor and this is somewhat problematic in the current case. Throughout recorded history, people, their animals and goods have moved mostly north-south along the rivers that rise from the Himalayas and Tibetan Plateau and empty in the oceans as the Mekong, Hong, Irrawaddy, Salween and Chao Phraya Rivers. Moving along river valleys is much more convenient (and slightly less dangerous) than trying to cross the thickly forested mountains and swamps that separate east and west. It is, therefore, not surprising to note that inter-state relations on the north-south axis (i.e. primarily with China) have been more politically and diplomatically well-developed compared with east-west inter-state relations, since those relations may be best described as being characterized by endemic warfare. For example, over the last 50 years there has been the war between China and Vietnam but many more cases of east-west antagonism including the Vietnamese invasion of Cambodia, as well as fighting on the Thai-Cambodian, Thai-Myanmar and Thai-Lao

PDR borders. It has been more difficult to establish the EWEC in comparison with the NSEC, for which capital and political support were comparatively easy to obtain.

	Population (millions)	GDP/capita (US\$)	Corruption (ranking)	Press Freedom (ranking)	Ease of Doing Business (ranking)	Food Insecurity
Lao PDR	7.0	5,300	139	173	134	3
Myanmar	56.9	5,500	147	143	167	1
Thailand	68.2	16,100	76	136	49	1
Vietnam	95.3	6,000	112	175	90	1

**Table 2:** *Indicative Statistics of Sample Countries, source: See Below*

Data sources:

Population: CIA World Factbook, various pages, available at:

<https://www.cia.gov/library/publications/the-world-factbook/>.

GDP per capita (PPP): CIA World Factbook, various pages, available at:

<https://www.cia.gov/library/publications/the-world-factbook/>.

Corruption: Transparency International, various pages, [www.transparency.org](http://www.transparency.org)

Press freedom: Reporters without Borders, 2016 world Press Freedom Index, <https://rsf.org/en/ranking>

Ease of doing business: World Bank, [www.doingbusiness.org/ranking](http://www.doingbusiness.org/ranking).

Food insecurity: FAO (2015). 1 = WFS Goal and MDG 1c target achieved; 3 = MDG 1c target achieved.

Most recent estimates or figures have been use in all cases.

The East West Economic Corridor (EWEC) was identified at the eighth GMS ministerial key strategic initiatives in promoting the GMS according to the concept of turning the battlefield into a marketplace (ADB, 2010:1). The EWEX joins the North-South Economic Corridor



(NSEC), which has already linked through transportation infrastructure Singapore in the south with Kunming in the north and thence to the large Chinese cities of Shanghai, Hong Kong and Beijing. These links have greatly reduced travel times through the GMS and, hence, provided considerable boosts to trade. Together with increased levels of Chinese investment in the region, there are many opportunities for people to obtain better standards of living and, therefore, reduced risks of food insecurity. The EWEC has been less successful than the NSEC so far, since historical patterns of movement and contact in the GMS have been primarily north-south in nature, owing to difficult terrain, convenience of moving along the valleys of rivers flowing south from the Himalayas and the endemic warfare among GMS states.

Capital has been more difficult to raise and there has been little practical interest from India, despite various Look east policies introduced by successive governments there. The link with India will be part of the larger Asian Highway Network, of which the EWEC is a component. Consequently, the roads linking Vietnam, Lao PDR, Thailand, Myanmar and then India have yet to be completed. As Figure 1 below indicates, the EWEC extends from Da Nang, Dong Ha and Vinh in Vietnam, Savannakhet in Lao PDR, Mukdahan, Kohn Kaen and Tak in Thailand with Mawlamyine in Myanmar.



**Figure 1:** *The East-West Economic Corridor*; **source:** <http://www.ewecbiz.com>.

The overall strategy envisages a combination of trade promotion and poverty reduction initiatives to be associated with the EWEC. It is reasonable to imagine that people who live within the corridor area would have better opportunities for income generation than those without and, hence, would experience lower levels of food insecurity, as measured by the FIES. This project seeks to compare the experiences of two cohorts of respondents in each of the countries investigated. It is noted that the relationship between the two groups will not be easy to predict because it is not necessarily the case that people within the corridor region will have had time to benefit from being inside compared to those outside. For example, in the case of Lao PDR, most development and capital accumulation has taken place around the capital city Vientiane, while the rural areas around Savannakhet to the south are much less developed. Nevertheless, it is the latter that is inside the corridor and not the former. It is hoped that the analysis of respondents depending on whether they are located in an urban or rural setting will help to elucidate the nature of any statistically significant results in this regard.

## ***1.2. Research Objectives***

The objectives of this project are:

1. To test the FAO Food Insecurity Experience Scale within and outside the GMS EWEC;
2. To identify the role of the East-West Economic Corridor in food security in the areas it covers by comparing responses from respondents within the corridor region to those outside of it;
3. To provide analysis of collected data to help inform policy formation at national and regional levels of government and to the specifications of the client;
4. To contribute to understanding of food insecurity issues on a global basis.

Details on the individual research sites are included in the papers following this introduction.

## **3. Methodology**

### **3.1. Questionnaire Design**

The research project was designed to a quantitative research project using a questionnaire designed by the FAO and validated through use in multiple sample sites. The questionnaire was written in English but has been interpreted into the dominant local languages by research team members. The sample selection process included the provision that, so far as is possible, sample sites would not be chosen where significant proportions of potential respondents would be omitted because of lack of appropriate language skills.

A research leader was appointed for each of the LMTV countries who was then made accountable for ensuring that the correct number of questionnaires was collected in each case. The sample called for 200 questionnaires from each country, with 100 in locations inside EWEC

and 100 outside and 100 in rural areas and 100 in urban areas. As will be seen below, there were some problems in obtaining the desired sample size. Researchers were also encouraged to try to ensure as diverse a range of respondents with respect to age, gender and social circumstances as possible conversant with the criteria outlined above.

Completed questionnaires were coded and then entered into PSPP, which is a free, open source software programme able to analyse quantitative data to the level required but without the expense. Alternative programmes can be prohibitively expensive for researchers in less developed countries. The lead researcher supervised the data entry and analysis processes, although country research teams were responsible for producing the individual country reports. An overall report, this document, accompanied the four individual country level reports.

Each country research team leader was instructed to interpret the original questionnaire into the appropriate local majority language (i.e. Lao, Myanmar, Thai and Vietnamese) and to collect responses according to the following criteria:

- 100 questionnaires should be completed in locations inside EWEC;
- 100 questionnaires should be completed in locations outside EWEC;
- Of the questionnaires collected within EWEC, 50 should be in urban locations and 50 in rural locations;
- Of the questionnaires collected outside EWEC, 50 should be in urban locations and 50 in rural locations.

In addition to these principal criteria research teams were instructed to try to ensure heterogeneity within the sample with respect to the demographic variables of gender, age, education, access to land and income levels. The research teams did the best they could to try to meet these guidelines, although the results were not perfect (but were within the bounds of reasonable practice). Sample results and

comparison between sample and population are included in the next section.

Fieldwork was conducted in June and July of 2016 and research teams then completed country level reports in conjunction with the principal researcher. It is not possible to be certain about non-response bias. Research in other projects (e.g. Zin, forthcoming) has suggested that some respondents (e.g. women with low levels of education) will be reluctant to participate in research because of lack of confidence and, throughout the region in rural areas, there is the issue of household members, particularly but not always men, having migrated to cities or overseas in search of better paid work. These issues are difficult to overcome the methodology employed and the constraints of time and space imposed. Nevertheless, limitations to the research exist.

Previous research also demonstrates (e.g. Walsh, 2015) that some respondents will believe that an interviewer or research team will be representing official agencies with the ability to offer or withhold important services or resources and are likely, therefore, to adjust their attitudes and answers accordingly. Research teams in this project were encouraged to make it clear they were part of an academic research project and had no ability directly to affect their lives in the future. Even so, opinion polling in recent high profile elections in western countries has highlighted the gap between opinion and response that may or may not take place on a systematic basis.

As mentioned above, the state language was employed for interviewing and the research team leaders were fluent both in their own language and in English. However, it was not possible to deal with ethnic minority languages for potential respondents who might have been found in the research sites. Research teams were not instructed to seek out people who could not communicate in the national language or dialect and focused on locations where communications was more convenient.

The fieldwork took place before the monsoon season could interrupt transportation and communications and no intense harvesting operations were taking place. Notwithstanding human error, it is adjudged that data collection adhered to as rigorous an approach as might be reasonably expected. Once collected, the questionnaires were checked and then the data entered into the PSPP statistical programme. PSPP is a free, open-source programme that emulates the widely-known but prohibitively expensive SPSS programme that is used in many research projects, whether or not properly licensed. PSPP enabled the researchers to process and analyse the data in the same way that SPSS (or similar programmes) would but in the knowledge that no ethical standards were being compromised.

As described below, various statistical techniques were employed to try to achieve the research objectives outlined previously and to understand the responses given by respondents. Since the research instrument has been widely used and accepted, it was not considered necessary to try to establish validity or reliability through statistical means.

## 2.2. The Sample

The sample obtained is as follows.

	<b>n</b>	<b>%age</b>
Lao PDR	257	24.3
Myanmar	400	37.8
Thailand	200	18.9
Vietnam	200	18.9

**Table 3:** *Country Breakdown; source: Original Research*

More than the required total number of completed questionnaires was received. The Lao PDR team returned an additional 57 questionnaires and the Myanmar team doubled the required number. The Thailand and Vietnam teams returned the required number of questionnaires in all criteria and the Vietnam team provided additional demographic information, as did the Lao PDR team. However, the Lao PDR team

did not collect data on the age of the respondents and had too few respondents in rural areas (61 instead of 100). Additionally, most demographic data was missing from 100 of the Myanmar team's questionnaires. The data collected from all completed questionnaires are included in the analysis reported on in this paper.

In terms of gender, the following results were reported.

<b>%age (n)</b>	<b>Male</b>	<b>Female</b>	<b>n</b>
Lao PDR	38.9 (100)	61.1 (157)	257
Myanmar	36.3 (109)	63.7 (191)	300
Thailand	52.5 (105)	47.5 (95)	200
Vietnam	45.0 (90)	55.0 (110)	200
Total	42.2 (404)	57.8 (553)	957

**Table 4:** *Gender and Country; source: Original Research (p = 0.002\*\*<sup>1</sup>)*

In three of the four countries, more women were interviewed than men, with the exception being Thailand. Since research teams went on a house-to-house approach, it is not surprising that more women than men were available for interview because women are more likely to be involved in domestic or work activities that take place within or in the vicinity of the house. In terms of age, bearing in mind that the data were not collected in Lao PDR, the following results were obtained.

<b>%age (n)</b>	<b>Under 30</b>	<b>31-59</b>	<b>60+</b>	<b>n</b>
Myanmar	83.0	17.0	0	300
Thailand	20.0	58.5	21.5	200
Vietnam	14.0	73.5	12.5	200
Total	45.3	45.0	9.7	700

**Table 5:** *Age Range and Country; source: Original Research (p = 0.000\*\*)*

<sup>1</sup> In this special issue, a single asterisk is used to identify a distribution with a statistically significant result at the 0.05 level; two asterisk identify a distribution with a statistically significant result at the 0.01 level.

The methodology used by the Myanmar research team has produced a generally lower level of age ranges of respondents than from Vietnam and Thailand. Subsequent evaluation of the Lao PDR sample revealed that data had been collected on position in the household (e.g. parents, children) and other evidence that could be used to create a variable that broadly reflected a younger and a middle aged category, with a third category for ‘others’ composed of cousins and others relatives whose relative age could not be identified. This resulted in the following results:

	%age
Children/grandchildren	44.7
Parents	46.3
Others	9.0
N	255

**Table 6:** *Age Categories in Lao PDR; source: Original Research*  
 These results will be incorporated into the overall analysis when it is appropriate.

In terms of the distribution of responses from inside and outside the EWEC area, the following results were obtained (see Table 8 below). All the researched country samples have met the criterion for having sufficient numbers of respondents located within and without the EWEC area. The Lao PDR team obtained extra responses from both within and without the region. Research teams used two areas or provinces within the region and two without, so as to obtain a suitably diverse set of responses.

%age (n)	Inside	Outside	n
Lao PDR	41.1 (121)	52.9 (136)	257
Myanmar	50.0 (200)	50.0 (200)	400
Thailand	50.0 (100)	50.0 (100)	200
Vietnam	50.0 (100)	50.0 (100)	200
Total	49.3 (521)	50.7 (536)	1057

**Table 7:** *EWEC and Country; source: Original Research (p = 0.882)*



The next issue concerned the location of the household, which research teams were asked to divide between the urban and the rural, with the following results.

<b>%age (n)</b>	<b>Urban</b>	<b>Rural</b>	<b>n</b>
Lao PDR	76.3 (196)	23.7 (61)	257
Myanmar	36.7 (110)	62.3 (190)	300
Thailand	50.0 (100)	50.0 (100)	200
Vietnam	50.0 (100)	50.0 (100)	200
Total	52.9 (506)	47.1 (451)	957

**Table 8:** *Setting and Country; source: Original Research*

The urban section is somewhat over-represented in the Lao PDR sample but the sub-sample of rural respondents is sufficient for meaningful analysis to be possible. Overall, the sample size exceeds what was expected.

Income is dealt with differently than other variables because the exact amount (measured in the equivalent of US\$ per month) varies so much from country to country (see Table 1 for GDP per capita figures). To introduce comparability, respondents are divided into three categories, broadly defined as low, middle and high incomes, as shown in the table below.

<b>Country</b>	<b>Lao PDR</b>	<b>Myanmar</b>	<b>Thailand</b>	<b>Vietnam</b>
Low Income (n)	0-1,000 (204)	0-100 (160)	0-1,000 (149)	0-200 (37)
Medium Income (n)	1,001- 3,000 (38)	101-200 (121)	1,001-2,000 (36)	201-400 (86)
High Income (n)	3,001+ (14)	201+ (19)	2,001+ (14)	401+ (77)

**Table 9:** *Income Level Categories; source: Original Research*

Measuring income levels can be problematic since there are incentives for respondents not to be fully accurate in their responses, even if they are aware of exact figures. Adding to this problem is that income may be seasonal in nature and variable on a month-by-month basis. Some

labour is not rewarded in monetary terms. When required, country researchers were encouraged to make an estimate of income level as far as they could.

Respondents were also asked about their access to land.

Country	Lao	Myanmar	Thailand	Vietnam	Overall
	PDR				
Unhindered	40.5	56.3 (169)	58.0	31.5 (63)	47.2
Access (n)	(104)		(116)		(452)
Hindered	59.5	43.7 (131)	42.0 (84)	68.5	52.8
Access (n)	(153)			(137)	(505)

Table 10: *Income Level Categories*; source: *Original Research* ( $p = 0.000^{**}$ )

The purpose of this question was to provide a reasonable spread of respondents based on either hindered or unhindered access to land. It would have been very difficult to reduce the various differences between land ownership issues in the four countries to a simple, consistent dichotomous variable and so researchers were encouraged to use their own judgement when necessary. As will be shown later, access to land is one of the more important means of predicting food insecurity experiences.

### 3. Findings

#### 3.1. The Food Insecurity Index

The Food Insecurity Index is built from the eight questions used in the questionnaire asking whether respondents had witnessed any of these components of potential food insecurity over the preceding twelve months:

Q1. You or others in your household worried about not having enough food to eat because of a lack of money or other resources?

Q2. Still thinking about the last 12 MONTHS, was there a time when you or others in your household were unable to eat healthy and nutritious food because of a lack of money or other resources?

Q3. Was there a time when you or others in your household ate only a few kinds of foods because of a lack of money or other resources?

Q4. Was there a time when you or others in your household had to skip a meal because there was not enough money or other resources to get food?

Q5. Still thinking about the last 12 MONTHS, was there a time when you or others in your household ate less than you thought you should because of a lack of money or other resources?

Q6. Was there a time when your household ran out of food because of a lack of money or other resources?

Q7. Was there a time when you or others in your household were hungry but did not eat because there was not enough money or other resources for food?

Q8. Was there a time when you or others in your household went without eating for a whole day because of a lack of money or other resources?

These questions, which explore the various facets of food security described previously, appear in the tables below as B1-B8, respectively. The first table displays the breakdown of results by country. It is clear that the country where the research was conducted is a powerful predictor of food insecurity experiences because all eight scale items show highly statistically significant results. In general, as would be expected, the experience of food insecurity tends to decline in all countries as more severe scale items are considered. The main difference to this tendency is between B4 and B5, since the latter (eat less) is much more prevalent than the former (miss a meal altogether). The low severity scale items are most prevalent in Vietnam and Lao

PDR but it is notable that Vietnam experiences almost no food insecurity at the most severe levels (B7 and B8), perhaps because of the poverty eradication policies noted previously. It is surprising that food insecurity in Thailand is at higher or comparable levels to that in Myanmar, despite the large difference in income per capita statistics.

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Lao PDR	55.3	29.6	40.9	14.4	33.1	14.0	13.2	10.1
Myanmar	27.8	28.8	32.8	19.3	24.8	18.8	23.5	11.0
Thailand	43.8	26.0	31.5	15.5	29.0	15.0	14.5	16.0
Vietnam	56.5	34.5	30.5	3.5	23.5	1.5	0.5	0
Overall	42.8	29.5	34.1	14.4	27.3	13.6	15.0	9.7
N	1057	1057	1057	1057	1057	1057	1057	1057
P	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**

**Table 11: FIES Index by Country; source: Original Research**

In addition to answering yes or no, respondents were also offered the opportunity to answer ‘don’t know’ or ‘refused to respond,’ which is the method employed in previous usages of the FIES. It is thought that some respondents might be reluctant to give an answer if they feel it is too revealing or embarrassing an answer or for some other personal reason. The following table indicates the number of people taking advantage of these non-responses.

It is noticeable that no Thai respondents felt the need to express a don’t know or refused to answer response to any of the eight scales, while in Myanmar and Lao PDR this proportion could reach 10% in a number of cases (in Vietnam the proportions are slightly less). It is quite possible that there are society-specific differences in social relations here that would help to explain these variations. However, in general, it would be expected that most questions of this sort would attract a relatively low proportion of people unwilling or unable to provide an answer.

% (Lao PDR)	B1	B2	B3	B4	B5	B6	B7	B8
No	34.6	61.5	51.4	78.2	57.6	78.2	78.2	80.2
Yes	55.3	29.6	40.9	14.4	33.1	13.2	13.2	10.1
Don't Know	6.2	3.5	4.3	2.7	3.5	2.7	2.3	3.1
Refused	3.9	5.5	3.5	4.7	5.8	5.1	6.2	6.6
N	257	257	257	257	257	257	257	257
Myanmar								
No	62.8	59.5	59.8	75.8	67.5	72.5	71.3	84.3
Yes	27.8	28.8	32.8	19.3	24.8	18.8	23.5	11.0
Don't Know	7.3	10.0	6.0	3.5	6.8	7.5	4.3	4.0
Refused	2.3	1.8	1.5	1.5	1.0	1.3	1.0	0.8
N	400	400	400	400	400	400	400	400
Thailand								
No	57.0	74.0	68.5	84.5	71.0	85.0	85.5	84.0
Yes	43.0	26.0	31.5	15.5	29.0	15.0	14.5	16.0
Don't Know	0	0	0	0	0	0	0	0
Refused	0	0	0	0	0	0	0	0
N	200	200	200	200	200	200	200	200
Vietnam								
No	43.5	58.5	63.0	96.0	76.0	96.0	97.0	100
Yes	56.5	34.5	30.5	3.5	23.5	1.5	0.5	0
Don't Know	0	5.5	4.5	0.5	0.5	1.0	1.5	0
Refused	0	1.5	2.0	0	0	1.5	1.0	0
N	200	200	200	200	200	200	200	200

**Table 12:** *FIES Index at the Country Level with Non-Responses Included; source: Original Research*

### 3.1.1. The EWEC and the FIES

Respondents were asked about their experience of food insecurity in relation to their relationship with the EWEC, with the following results.

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Lao PDR - inside	62.8	29.8	46.3	14.1	39.7	10.7	16.5	9.9
Outside	48.5	29.4	36.0	14.7	27.2	16.9	10.3	10.3
Overall	55.3	29.6	40.9	14.4	33.1	14.0	13.2	10.1
N	257	257	257	257	257	257	257	257
P	0.061	0.886	0.040*	0.221	0.052	0.113	0.238	0.738
Myanmar - inside	16.5	25.0	28.0	23.5	25.0	17.5	27.5	14.0
Outside	39.0	32.5	37.5	15.0	24.5	20.0	19.5	8.0
Overall	27.8	28.8	32.8	19.3	24.8	18.8	23.5	11.0
N	400	400	400	400	400	400	400	400
P	0.000**	0.012*	0.210	0.056	0.177	0.042*	0.040*	0.020*
Thailand - inside	43.0	31.0	37.0	23.0	37.0	26.0	24.0	25.0
Outside	43.0	21.0	26.0	8.0	21.0	4.0	5.0	7.0
Overall	43.0	26.0	31.5	15.5	29.0	15.0	14.5	16.0
N	200	200	200	200	200	200	200	200
P	1.000	0.107	0.094	0.003**	0.013*	0.000**	0.000**	0.001**
Vietnam - inside	66.0	51.0	44.0	1.0	31.0	0	0	0
Outside	47.0	18.0	17.0	6.0	16.0	3.0	1.0	0
Overall	56.5	34.5	30.5	3.5	23.5	1.5	0.5	0
N	200	200	200	200	200	200	200	200
P	0.007**	0.000**	0.000**	0.098	0.024*	0.046*	0.340	-

**Table 13:** *FIES Index by EWEC and Country; source: Original Research*

It is clear that the results vary here from country to country. In Lao PDR, presence of the EWEC seems to make very little difference to food insecurity experiences and it is quite common for experience to be more common inside the corridor than outside. In Myanmar, there are five statistically significant results, indicating that this variable is quite a good predictor of the presence of food insecurity. Interestingly, food insecurity is much more prevalent outside the corridor at the less severe levels but less prevalent at the more severe levels. It is possible that communities inside the corridor were better off (either initially or as the result of presence therein) but that this has not been for long

enough for more severe forms of poverty to be reduced. In Thailand, there is a consistent trend for there to be more food insecurity inside the corridor than outside but not to the point of statistical significance. It is likely that this is a result of the area of the country covered by the corridor and the relationship between that part of the country and the national economy. Finally, in Vietnam, there are five statistically significant results, with two of them being statistically significant. It is much more likely for the communities inside the corridor to experience food insecurity at the less severe levels but less so at the more severe. This is consistent with the interpretation that the affected areas are poorer than others but that they have been targeted to eradicate more severe forms of poverty (i.e. scale items on the right-hand side of the scale).

Further research and consideration is required to identify province level differences in income within each country and their relationship with the location of the corridor. It would also be necessary to consider the length of time that it would be necessary to spend within an economic corridor of this sort before tangible results can expect to be detected.

### 3.1.2. Gender and the FIES

Respondents were asked about their gender (identified as a dichotomous variable by interviewers) and their food insecurity experiences. The results of this are portrayed in the table below.

% age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Male	44.1	28.2	32.4	13.6	26.0	13.6	12.9	8.7
Female	47.4	33.6	38.3	16.8	32.2	15.7	18.4	11.0
Overall								
N	957	957	957	957	957	957	957	957
P	0.243	0.299	0.017*	0.598	0.022*	0.207	0.127	0.385

**Table 14:** *Gender and the FIES; source: Original Research*

It would be expected that women would be more likely to have experience of food insecurity since they are generally expected to be responsible for food sourcing and preparation and, hence, they will know whether income constraints have had an impact on meals provided in the household. Indeed, this is consistently true for all eight of the scale items, although only two of these results are statistically significant in nature. When viewed on a country-by-country basis (see below), similar patterns exist in which women tend to have more experience of food insecurity but statistically significant results are not very frequent.

These results are consistent both on an overall basis and on a country-by-country basis, suggesting that the interpretation provided above is credible. However, while gender can be used to identify some insecurity effects within households, it does not seem to have much predictive power for where it will be found from person to person or community to community and so the analysis of additional variables is required.



%age saying 'yes' (PDR)	B1 - Male	B1 - Female	B2 - Male	B2 - Female	B3 - Male	B3 - Female	B4 - Male	B4 - Female
Yes	57.0	59.1	28.0	30.6	40.0	41.4	13.0	15.3
N	100	157	100	157	100	157	100	157
P		0.621		0.805		0.721		0.441
	B5 - Male	B5 - Female	B6 - Male	B6 - Female	B7 - Male	B7 - Female	B8 - Male	B8 - Female
Yes	31.0	34.4	8.0	17.8	12.0	14.0	7.0	12.1
N	100	157	100	157	100	157	100	157
P		0.014*		0.065		0.179		0.166
(Myanmar)	B1 - Male	B1 - Female	B2 - Male	B2 - Female	B3 - Male	B3 - Female	B4 - Male	B4 - Female
Yes	34.3	34.0	31.2	36.1	36.8	39.3	20.2	26.7
N	109	191	109	191	109	191	109	191
P		0.316		0.444		0.102		0.246
	B5 - Male	B5 - Female	B6 - Male	B6 - Female	B7 - Male	B7 - Female	B8 - Male	B8 - Female
Yes	21.1	36.7	25.7	23.6	20.2	35.6	11.9	13.1
N	109	191	109	191	109	191	109	191
P		0.037*		0.704		0.028*		0.952
(Thailand)	B1 - Male	B1 - Female	B2 - Male	B2 - Female	B3 - Male	B3 - Female	B4 - Male	B4 - Female
Yes	40.0	46.3	26.7	35.3	29.5	33.7	15.2	15.8
N	105	95	105	95	105	95	105	95
P		0.368		0.821		0.527		0.914
	B5 - Male	B5 - Female	B6 - Male	B6 - Female	B7 - Male	B7 - Female	B8 - Male	B8 - Female
Yes	30.5	27.4	13.7	13.7	16.2	12.6	14.3	17.9
N	105	95	105	95	105	95	105	95
P		0.629		0.620		0.475		0.487
(Vietnam)	B1 - Male	B1 - Female	B2 - Male	B2 - Female	B3 - Male	B3 - Female	B4 - Male	B4 - Female
Yes	50.0	61.8	26.7	40.9	23.3	36.4	4.4	2.7
N	90	110	90	110	90	110	90	110
P		0.094		0.033*		0.026*		0.538
	B5 - Male	B5 - Female	B6 - Male	B6 - Female	B7 - Male	B7 - Female	B8 - Male	B8 - Female
Yes	21.1	25.5	2.2	0.9	1.1	0	0	0
N	90	110	90	110	90	110	90	110
P		0.498		0.194		0.386		-

**Table 15:** Gender and the FIES Insecurity Index, Country-by-Country; source: Original Research

### 3.1.3. Age and the FIES

Respondents were next asked about their ages (on some occasions through observation by the country researchers). The aim was to divide the sample into three groups, representing younger, middle and older age levels. This was done by asking respondents to select an age group (under 30, 31-59, 60+). There was a different approach in Lao PDR where respondents were asked about their position in the household and, using this and other evidence, respondents were allocated into one of the three preceding categories.<sup>2</sup>

The results of this analysis are as follows:

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
<30	40.4	34.8	38.5	21.4	31.8	21.4	24.4	12.3
31-59	50.8	26.8	31.9	8.8	25.4	7.6	7.6	6.7
60+	51.5	32.4	39.7	17.7	41.2	14.7	17.7	14.7
Overall	46.0	30.9	35.5	15.2	29.5	14.5	16.1	9.9
N	932	932	932	932	932	932	932	932
P	0.000**	0.000**	0.006**	0.000**	0.000**	0.000**	0.000**	0.000**

**Table 16: Age Range and the FIES; source: Original Research**

It is evident from these results that all eight of the scale items have highly statistically significant results. In general (apart from B1), the distributions show that the younger and older age groups have experienced more food insecurity than those in the middle group. This would be consistent with the view that younger people are likely to earn lower levels of income and will be more than those older than them while the older age group is moving towards dependency on others and, hence, also vulnerable to food insecurity. This may also be seen in the age level results, which are displayed below.

<sup>2</sup> Parents were allocated to the second category and children and grandchildren allocated to the first category. A third category from the original variable, 'others,' was omitted from this analysis.

% saying 'yes' (Lao PDR)	B1 – 19-30	B1 – 31-50	B1 – 60+	B2 – 19-30	B2 – 31-59	B2 – 60+	B3 – 19-30	B3 – 31-59	B3 – 60+	B4 – 19-30	B4 – 31-59	B4 – 60+
Yes	48.3	58.0	0	26.3	28.8	0	37.7	42.4	0	14.9	11.9	0
N	114	118	0	114	118	0	114	118	0	114	118	0
P	0.090			0.944			0.652			0.595		
	B5 – 19-30	B5 – 31-50	B5 – 60+	B6 – 19-30	B6 – 31-59	B6 – 60+	B7 – 19-30	B7 – 31-59	B7 – 60+	B8 – 19-30	B8 – 31-59	B8 – 60+
Yes	28.1	38.1	0	16.7	8.5	0	12.3	13.6	0	11.4	7.6	0
N	114	118	0	114	118	0	114	118	0	114	118	0
P	0.258			0.258			0.993			0.607		
Myanmar	B1 – 19-30	B1 – 31-50	B1 – 60+	B2 – 19-30	B2 – 31-59	B2 – 60+	B3 – 19-30	B3 – 31-59	B3 – 60+	B4 – 19-30	B4 – 31-59	B4 – 60+
Yes	39.0	3.9	39.4	9.8	43.0	13.7	28.1	5.9				
N	249	51	249	51	249	51	249	51	249	51	249	51
P	0.000**			0.000**			0.000**			0.008**		
	B5 – 19-30	B5 – 31-59	B6 – 19-30	B6 – 31-59	B7 – 19-30	B7 – 31-59	B8 – 19-30	B8 – 31-59				
Yes	35.7	3.9	27.7	7.8	35.3	3.9	14.1	5.9				
N	249	51	249	51	249	51	249	51	249	51	249	51
P	0.000**			0.001**			0.000**			0.339		
Thailand	B1 – 19-30	B1 – 31-50	B1 – 60+	B2 – 19-30	B2 – 31-59	B2 – 60+	B3 – 19-30	B3 – 31-59	B3 – 60+	B4 – 19-30	B4 – 31-59	B4 – 60+
Yes	27.5	50.4	37.2	32.5	22.2	30.2	25.0	31.6	37.2	12.5	12.8	25.6
N	40	117	43	40	117	43	40	117	43	40	117	43
P	0.028*			0.342			0.488			0.119		
	B5 – 19-30	B5 – 31-59	B6 – 19-30	B6 – 31-59	B7 – 19-30	B7 – 31-59	B8 – 19-30	B8 – 31-59				

	30	59	60+		60+	30		30	59	60+		
Yes	30.0	24.8	39.5	10.0	14.5	20.9	7.5	12.8	25.6	12.5	14.5	23.3
N	40	117	43	40	117	43	40	117	43	40	117	43
P		0.118			0.370			0.047*				0.327
Vietnam	B1 – 19-30	B1 – 31- 50	B1 – 60+	B2 – 19-30	B2 – 31-59	B2 – 60+	B3 – 19- 30	B3 – 31-59	B3 – 60+	B4 – 19- 30	B4 – 31- 59	B4 – 60+
Yes	39.3	56.5	76.0	32.1	34.7	36.0	21.4	29.9	44.0	0	4.1	4.0
N	28	147	25	28	147	25	28	147	25	28	147	25
P		0.046*			0.814			0.446				0.817
%age	B5 – 19-30	B5 – 31- 59	B5 – 60+	B6 – 19-30	B6 – 31-59	B6 – 60+	B7 – 19- 30	B7 – 31-59	B7 – 60+	B8 – 19- 30	B8 – 31- 59	B8 – 60+
Yes	14.3	21.8	44.0	0	1.4	4.0	0	0	0	0	0	0
N	28	147	25	28	147	25	28	147	25	28	147	25
P		0.010*			0.493			0.094				-

**Table 17:** Age and the FIES Insecurity Index at the Country Level; **source:** Original Research

These results clearly show highly statistically significant results for Myanmar but for almost no other cases. In the case of Myanmar, the results are apparently counter-intuitive in that food insecurity increases for the middle aged group compared to the younger group. It may be that there are a number of younger respondents who have found jobs in the emerging market system which have helped to lift their households out of the threat of hunger.

### 3.1.4. Education and the FIES

Respondents were asked about their level of education, which was abstracted into two categories, which were none to primary and, second, secondary or higher levels. The results of this were as follows:

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Low	57.4	39.7	48.5	23.5	45.6	22.8	22.1	22.1
High	44.2	30.0	33.7	14.2	26.9	13.4	15.0	8.1
Overall								
N	955	955	955	955	955	955	955	955
P	0.004**	0.012*	0.002**	0.028*	0.000**	0.016*	0.224	0.000**

**Table 18:** *Education and the FIES; source: Original Research*

Since there are seven statistically significant distributions from these eight scale items, it is evident that education is a powerful predictor of food insecurity experience, especially since all the results demonstrated the hypothesized trend that respondents with low levels of education are much more likely to have experienced food insecurity than people with higher levels of education. This is also true when the results are considered on a country-by-country basis, as shown in the table below.

%age saying 'yes' (Lao PDR)	B1 Primary	B1 Secondary	B2 Primary	B2 Secondary	B3 Primary	B3 Secondary	B4 Primary	B4 Secondary
Yes	46.2	56.0	38.5	29.2	61.5	39.9	15.4	14.4
N	13	243	13	243	13	243	13	243
P	0.741		0.763		0.341		0.624	
%age saying 'yes' (Myanmar)	B5 Primary	B5 Secondary	B6 Primary	B6 secondary	B7 Primary	B7 Secondary	B8 Primary	B8 Secondary
Yes	53.9	32.1	30.8	13.2	38.5	11.9	30.8	9.1
N	13	243	13	243	13	243	13	243
P	0.051		0.028*		0.001**		0.015*	
%age saying 'yes' (Thailand)	B1 Primary	B1 Secondary	B2 Primary	B2 Secondary	B3 Primary	B3 Secondary	B4 Primary	B4 Secondary
Yes	42.9	32.9	57.1	33.9	57.1	37.3	71.4	23.3
N	7	292	7	292	7	292	7	292
P	0.795		0.586		0.678		0.000**	
%age saying 'yes' (Lao PDR)	B5 Primary	B5 Secondary	B6 Primary	B6 secondary	B7 Primary	B7 Secondary	B8 Primary	B8 Secondary
Yes	71.4	29.8	57.1	23.3	57.1	29.1	57.1	11.6
N	7	292	7	292	7	292	7	292
P	0.127		0.203		0.241		0.000**	
%age saying 'yes' (Thailand)	B1 Primary	B1 Secondary	B2 Primary	B2 Secondary	B3 Primary	B3 Secondary	B4 Primary	B4 Secondary
Yes	50.6	36.9	32.6	20.7	41.6	23.4	23/6	9.0
N	89	111	89	111	89	111	89	111
P	0.053		0.057		0.006**		0.005**	

	B5	-	B5	-	B6	-	B6	-	B7	-	B7	-	B8	-	B8	-
	Primary		Secondary		Primary		Secondary		Primary		Secondary		Primary		Secondary	
Yes	38.2		21.6		22.5		9.0		22.5		8.1		24.7		9.0	
P			0.010*				0.008**				0.004**				0.003**	
Vietnam	B1	-	B1	-	B2	-	B2	-	B3	-	B3	-	B4	-	B4	-
	Primary		Secondary		Primary		Secondary		Primary		Secondary		Primary		Secondary	
Yes	88.9		51.5		59.3		30.6		63.0		25.4		14.8		1.7	
N	27		173		27		173		27		173		27		173	
P			0.000**				0.034*				0.001**				0.003**	
	B5	-	B5	-	B6	-	B6	-	B7	-	B7	-	B8	-	B8	-
	Primary		Secondary		Primary		Secondary		Primary		Secondary		Primary		Secondary	
Yes	59.3		17.9		11.1		0		3.7		0		0		0	
N	27		173		27		173		27		173		27		173	
P			0.000**				0.000**				0.003**				-	

**Table 19:** Gender and the FIES Insecurity Index, Country-by-Country; source: Original Research

The results viewed on a country-by-country basis demonstrate the same trends indicated above. That is, the prevalence of food insecurity in items across the scale is higher for people with lower levels of education than with higher levels, even if strategically significant results are not always evident. Levels of education would be expected to be correlated both with income and with the urban setting. As will be seen subsequently, there are quite strong correlations between these three variables. This will lead to the policy objective that, to reduce poverty, education and income should be raised and, given commitments to open market economic development in the countries of the GMSR, increased income will come from increased ability to compete in regional and national markets and this, in turn, will result from increased abilities, education and understanding of the meaning of market opportunities.

### 3.1.5. Setting and the FIES

According to the initial sample set by the research design for the project, half of the sample was designed to be located in an urban setting and half in a rural setting. In countries which are still dominated by agriculture in different ways, the four countries in this project would be expected to have a majority of the overall economy affected by agriculture in different ways and for separate forms of development between rural and urban areas (respondents were categorized into a dichotomous variable reflecting this). It would be expected that food insecurity would be much more of a rural phenomenon than an urban one. The relevant results are presented below.

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Urban	39.9	23.3	27.9	10.5	23.3	10.5	11.1	9.7
Rural	52.8	40.4	44.8	21.1	36.6	19.7	21.7	10.4
Overall								
N	957	957	957	957	957	957	957	957
P	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.859

**Table 20:** *Setting and the FIES; source: Original Research*



These results certainly confirm the hypothesized expectation that food insecurity is more of a rural phenomenon, since all eight items of the scale indicate this and, for seven items, the results are highly statistically significant. This understanding is largely supported by the results presented on a country-by-country basis, as seen below.

%age saying 'yes (Lao PDR)	B1 - Urban	B1 - Rural	B2 - Urban	B2 - Rural	B3 - Urban	B3 - Rural	B4 - Urban	B4 - Rural
Yes	55.1	55.7	25.0	44.3	38.8	47.5	11.7	23.0
N	196	61	196	61	196	61	196	61
P		0.932		0.001**		0.051		0.000**
	B5 - Urban	B5 - Rural	B6 - Urban	B6 - Rural	B7 - Urban	B7 - Rural	B8 - Urban	B8 - Rural
Yes	30.6	41.0	9.7	27.9	10.2	23.0	7.1	19.7
Refused	4.6	9.8	3.1	11.5	3.1	16.4	4.6	13.1
N	196	61	196	61	196	61	196	61
P		0.006**		0.000**		0.000**		0.000**
Myanmar	B1 - Urban	B1 - Rural	B2 - Urban	B2 - Rural	B3 - Urban	B3 - Rural	B4 - Urban	B4 - Rural
Yes	15.5	43.2	20.0	42.6	20.9	47.9	13.6	30.5
N	110	190	110	190	110	190	110	190
P		0.000**		0.000**		0.000**		0.001**
	B5 - Urban	B5 - Rural	B6 - Urban	B6 - Rural	B7 - Urban	B7 - Rural	B8 - Urban	B8 - Rural
Yes	13.6	41.1	17.3	28.4	18.2	36.8	15.5	11.1
N	110	190	110	190	110	190	110	190
P		0.000**		0.001**		0.002**		0.666
Thailand	B1 - Urban	B1 - Rural	B2 - Urban	B2 - Rural	B3 - Urban	B3 - Rural	B4 - Urban	B4 - Rural
Yes	36.0	50.0	24.0	28.0	25.0	38.0	14.0	17.0
N	100	100	100	100	100	100	100	100
P		0.046*		0.519		0.048*		0.558
	B5 - Urban	B5 - Rural	B6 - Urban	B6 - Rural	B7 - Urban	B7 - Rural	B8 - Urban	B8 - Rural
Yes	31.0	27.0	15.0	15.0	16.0	13.0	18.0	14.0
N	100	100	100	100	100	100	100	100
P		0.533		1.000		0.547		0.440
Vietnam	B1 - Urban	B1 - Rural	B2 - Urban	B2 - Rural	B3 - Urban	B3 - Rural	B4 - Urban	B4 - Rural
Yes	41.0	72.0	23.0	46.0	17.0	44.0	1.0	6.0
N	100	100	100	100	100	100	100	100
P		0.000**		0.000**		0.000**		0.093
	B5 - Urban	B5 - Rural	B6 - Urban	B6 - Rural	B7 - Urban	B7 - Rural	B8 - Urban	B8 - Rural
Yes	12.0	35.0	0	3.0	0	1.0	0	0
N	100	100	100	100	100	100	100	100
P		0.000**		0.040*		0.103		-

**Table 21: Setting and the FIES Insecurity Index, Country-by-Country; source: Original Research**

These results are very striking. Observed at the country level, it is clear that the rural-urban divide manifests itself as would be expected in Lao PDR, Myanmar and Vietnam. However, in Thailand, it is found that urban food insecurity levels can exceed urban levels, which was not expected. The research team (see researcher notes in appendix A) found various examples of urban poverty in the country, both within and without the EWEC. Economic conditions, as explained above, have been very difficult for the poor and working poor classes since the military coup of 2014.

### 3.1.6. Income Levels and the FIES

Respondents were asked to define their level of income to try to determine whether this would have an impact on the level and extent of food insecurity experienced. It was expected that income level would be quite a strong predictor of such experiences since lack of money is the basic reason for lack of food security.

Owing to considerable differences in measurement techniques in the four different countries involved (since income in a household may be very variable on a month-by-month basis, may not represent wealth per se and may not consistently compare non-monetary resources) and so individual samples were divided into three income levels of low, medium and high, based on convenient dividing points in the individual distributions. The results of the analysis derived from this are as follows:

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Low	54.7	39.3	44.8	19.2	37.9	18.7	20.2	14.4
Medium	34.9	20.4	22.9	9.8	16.0	9.1	9.5	2.6
High	17.3	8.0	12.0	6.7	13.3	5.3	8.0	2.7
Overall	46.1	31.4	35.9	15.5	29.6	14.9	16.1	10.1
N	955	955	955	955	955	955	955	955
P	0.000**	0.000**	0.000**	0.001**	0.000**	0.000**	0.000**	0.000**

**Table 22:** *Income Level and the FIES; source: Original Research*

As was hypothesized, all the eight scales of insecurity show highly statistically significant results in the anticipated direction. That is, in

each case there were significantly higher levels of food insecurity for respondents in the low income level households compared to medium level and high level households. Of course, income levels correlate strongly with certain other of the demographic variables. As the following table shows, the high levels of correlations between, in particular, education, income and land access mean that these are the variables that are most instrumental in determining levels of food insecurity experienced.

Correlation (sig) (n)	Gender	Education	Setting	EWEC	Income Level	Land Access
Gender	*	0.08 (0.019*) (955)	0.06 (0.079) (957)	-0.03 (0.362) (957)	0.08 (0.012*) (955)	-0.07 (0.022*) (955)
Education	0.08 (0.019*) (955)	*	-0.16 (0.000**) (955)	0.03 (0.372) (955)	0.15 (0.000**) (953)	0.10 (0.002**) (955)
Setting	0.06 (0.079) (957)	-0.16 (0.000**) (955)	*	0.09 (0.005**) (957)	-0.10 (0.002**) (955)	-0.14 (0.000**) (957)
EWEC	-0.03 (0.362) (957)	0.03 (0.372) (955)	0.09 (0.005**) (957)	*	0.22 (0.000**) (955)	0.06 (0.072) (957)
Income Level	0.08 (0.012*) (955)	0.15 (0.000**) (953)	-0.10 (0.002**) (955)	0.22 (0.000**) (955)	*	(0.26) (0.000**) (955)
Land Access	-0.07 (0.022*)	0.10 (0.002**) (955)	-0.14 (0.000**) (957)	0.06 (0.072) (957)	(0.26) (0.000**) (955)	*

**Table 23:** *Bivariate Correlation Matrix for Demographic Variables; source: Original research*

It is evident that, as expected, there are some strong correlations between certain of these variables and the relationships are as would be anticipated. That is, income levels, education and setting are all strongly linked together. The more wealthy a family is, then, the better the level of education that can be achieved for its children and the better the jobs that can, therefore, be obtained. Such households are more likely to be located in urban areas rather than rural ones although this is not always necessarily the case. Often, these variables work in conjunction with presence inside the EWEC in the matter that

would be expected. However, as discussed elsewhere, the effects of the presence of the EWEC are somewhat more complex and further consideration is required before a definitive explanation can be provided.

In terms of the other variables, it appears initially that gender has an explanatory factor. However, subsequent analysis (see below) suggests that, at the country level, there is no real explanatory power linking gender with education (and, hence, the other variables).

(%age)	Lower	Higher
Male	9.0	91.0
Female	2.6	97.4
Lao PDR Overall	5.1	94.9
N	256	
P	0.022*	
Male	2.8	97.3
Female	2.1	97.9
Myanmar Overall	2.3	97.7
N	299	
P	0.722	
Male	42.9	57.1
Female	46.3	53.7
Thailand Overall	44.5	55.5
N	200	
P	0.623	
Male	14.4	85.6
Female	12.7	87.3
Vietnam Overall	13.5	86.5
N	200	
P	0.724	

**Table 24:** *The Relationship between Gender and Education; source: Original Research*

Consequently, it is assumed that the role of gender is more likely to be related to the availability and willingness of respondents to participate

in the research. It has been noted elsewhere that there are women in the region who are self-conscious to the extent that they would be unwilling to participate in research surveys of the sort described here.

In terms of income levels on an individual country basis, these results are displayed in the table below.

%age saying 'yes' (Lao PDR)	B1 – Low	B1 – Middle	B1 – High	B2 – Low	B2 – Middle	B2 – High	B3 – Low	B3 – Middle	B3 – High	B4 – Low	B4 – Middle	B4 – High
Yes	62.4	34.2	7.7	32.7	23.7	0	44.9	26.3	23.1	16.1	10.5	0
N	205	38	13	205	38	13	205	38	13	205	38	13
P	0.001**			0.097			0.157			0.483		
	B5 – Low	B5 – Middle	B5 – High	B6 – Low	B6 – Middle	B6 – High	B7 – Low	B7 – Middle	B7 – High	B8 – Low	B8 – Middle	B8 – High
Yes	38.1	13.2	15.4	16.6	5.3	0	16.1	2.6	0	12.2	2.6	0
N	205	38	13	205	38	13	205	38	13	205	38	13
P	0.021*			0.191			0.126			0.436		
Myanmar	B1 – Low	B1 – Middle	B1 – High	B2 – Low	B2 – Middle	B2 – High	B3 – Low	B3 – Middle	B3 – High	B4 – Low	B4 – Middle	B4 – High
Yes	42.8	22.1	21.1	44.7	22.1	26.3	46.5	28.7	26.3	33.3	13.1	21.1
N	159	122	19	159	122	19	159	122	19	159	122	19
P	0.001**			0.000**			0.030*			0.001**		
	B5 – Low	B5 – Middle	B5 – High	B6 – Low	B6 – Middle	B6 – High	B7 – Low	B7 – Middle	B7 – High	B8 – Low	B8 – Middle	B8 – High
Yes	40.9	18.0	31.6	30.2	18.0	15.8	38.4	18.9	31.6	20.1	3.3	10.5
N	159	122	19	159	122	19	159	122	19	159	122	19
P	0.001**			0.041*			0.015*			0.002**		
Thailand	B1 – Low	B1 – Middle	B1 – High	B2 – Low	B2 – Middle	B2 – High	B3 – Low	B3 – Middle	B3 – High	B4 – Low	B4 – Middle	B4 – High
Yes	45.3	36.1	38.5	30.7	13.9	7.7	36.0	22.2	7.7	17.3	11.1	7.7
N	150	36	13	150	36	13	150	36	13	150	36	13
P	0.567			0.035*			0.044*			0.469		
	B5 – Low	B5 – Middle	B5 – High	B6 – Low	B6 – Middle	B6 – High	B7 – Low	B7 – Middle	B7 – High	B8 – Low	B8 – Middle	B8 – High

	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High
Yes	32.7	22.2	7.7	18.7	2.8	7.7	18.0	5.6	0	20.0	5.6	0
N	150	36	13	150	36	13	150	36	13	150	36	13
P	0.099			0.042*			0.050*			0.028*		
Vietnam	B1 – Low	B1 – Middle	B1 – High	B2 – Low	B2 – Middle	B2 – High	B3 – Low	B3 – Middle	B3 – High	B4 – Low	B4 – Middle	B4 – High
Yes	73.6	54.4	10.0	59.3	19.0	0	56.0	12.7	0	4.4	3.8	0
N	91	79	30	91	79	30	91	79	30	91	79	30
P	0.000**			0.000**			0.000**			0.139		
	B5 – Low	B5 – Middle	B5 – High	B6 – Low	B6 – Middle	B6 – High	B7 – Low	B7 – Middle	B7 – High	B8 – Low	B8 – Middle	B8 – High
Yes	40.7	11.4	3.3	3.3	0	0	1.1	0	0	0	0	0
N	91	79	30	91	79	30	91	79	30	91	79	30
P	0.000**			0.210			0.289			-		

**Table 25:** Income Level and the FIES at the Country Level; **source:** *Original Research*



It is evident from these results that, while income level is a powerful predictor of food insecurity experience at the overall level, it is rather less potent when considered at the individual country level. While it remains very significant in Myanmar and, especially for the less severe levels, in Vietnam, it does not appear to be so important in either Lao PDR or Thailand. In the case of Thailand, it is argued, this may be because of the outbreak of a precariat class whose presence has become quite widely-known in Thai society as an urban phenomenon (as well as a rural one) and, hence, knowledge of food insecurity has been generated quite widely. In the case of Lao PDR, it may be that individual incomes or household level incomes are not so strongly linked to the other explanatory variables of education and land access.

### 3.1.7. Land Access and the FIES

Respondents were next asked about their ability to access land, whether they were in a rural or an urban setting. There may be some minor discrepancies across borders in this case because various location-specific laws and factors mean there are both practical and epistemological differences to the concept of land access or land ownership in different societies.

The results of this were as displayed in the table below.

%age saying "yes"	B1	B2	B3	B4	B5	B6	B7	B8
Unhindered	50.0	35.6	40.7	18.1	34.3	16.2	19.7	9.7
Hindered	42.4	29.5	31.5	13.1	25.4	13.7	12.9	10.3
Overall	46.0	31.4	35.8	15.5	14.8	14.8	16.1	10.0
N	957	957	957	957	957	957	957	957
P	0.021*	0.013*	0.028*	0.025*	0.022*	0.244	0.008	0.455

**Table 26:** *Land Access and the FIES; source: Original Research*

It is apparent from this that there are five statistically significant results here, all being located at the less severe end of the scale (i.e. B1-B5). However, in each of these cases, the trend is in a different direction to what might be expected. That is, the results show that

there were higher levels of food insecurity among those respondents with more unhindered access to land. This rather suggests that there is an intervening variable playing a role here – although a further argument is that access to land may be correlated with the undesirability of that land, at least in some cases. Consequently, people in that category might have had better access to land but that land did not help them so much.

The following table considers the FIES and land access results at the county level.

%age saying 'yes' (Lao PDR)	B1	–	B1	-	B2	-	B2	–	B3	-	B3	-	B4	-	B4	-
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	53.9		56.2		21.2		35.3		31.7		47.1		11.5		16.3	
N	104		153		104		153		104		153		104		153	
P			0.981				0.067				0.047*				0.273	
	B5	-	B5	–	B6	-	B6	–	B7	-	B7	–	B8	-	B8	–
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	26.9		37.3		7.7		18.3		7.7		17.0		6.7		12.4	
N	104		153		104		153		104		153		104		153	
P			0.166				0.035*				0.056				0.210	
Myanmar	B1	–	B1	-	B2	-	B2	–	B3	-	B3	–	B4	-	B4	–
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	39.6		24.4		40.8		26.0		46.2		27.5		29.6		17.6	
N	169		131		169		131		169		131		169		131	
P			0.007**				0.030*				0.010*				0.012*	
	B5	-	B5	–	B6	-	B6	–	B7	-	B7	–	B8	-	B8	–
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	37.9		22.1		27.2		20.6		37.3		20.6		10.7		15.3	
N	169		131		169		131		169		131		169		131	
P			0.022*				0.534				0.002**				0.541	
Thailand	B1	–	B1	-	B2	-	B2	–	B3	-	B3	–	B4	-	B4	–
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	43.1		42.9		24.1		28.6		29.3		34.5		13.8		17.9	
N	116		84		116		84		116		84		116		84	
P			0.972				0.480				0.433				0.433	
	B5	-	B5	–	B6	-	B6	–	B7	-	B7	–	B8	-	B8	–
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	28.5		29.8		15.5		14.3		15.5		13.1		16.4		15.5	
N	116		84		116		84		116		84		116		84	
P			0.840				0.810				0.631				0.863	

Vietnam	B1	–	B1	-	B2	-	B2	–	B3	-	B3	-	B4	-	B4	-
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	84.1		43.8		66.7		19.7		61.9		16.1		6.4		2.2	
N	63		137		63		137		63		137		63		137	
P			0.000**				0.000**				0.000**				0.266	
	B5	-	B5	–	B6	-	B6	-	B7	-	B7	-	B8	-	B8	-
	Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered		Unhindered		Hindered	
Yes	47.6		12.4		1.6		1.5		0		0.7		0		0	
N	63		137		63		137		63		137		63		137	
P			0.000**				0.101				0.471				-	

**Table 27:** Land Access and the FIES Insecurity Index at the Country Level; **source:** Original Research

These results indicate that land access is not so important in the cases of Lao PDR and Thailand. However, the variable does appear to be important in the cases of Myanmar and Vietnam and, in both cases, the counter-intuitive results were stronger than in the case of the overall results. It is certainly arguable, therefore, that it is the case that unhindered land access is correlated with unproductive and unprofitable land.

#### **4. Discussion**

Although food insecurity is considered to be a wholly or almost wholly rural phenomenon, the research conducted for this project indicated that urban food insecurity persists. In some cases, this is the result of rural-urban migration, combined with the lack of a safety net for many vulnerable people who are searching for food and money on a daily basis. However, it remains the case that food insecurity continues to cause problems in all the countries studied and in both kinds of setting.

Awareness of the increasing prevalence and importance of precarious living and working in Southeast Asia, as in most other parts of the world, has come under increasing scrutiny (e.g. Hewison & Kalleberg, 2012; Siegmann & Schiphorst, 2016). A previous study of Nepalese migrants in Thailand, for example, indicated how many people in such a situation were living on a day-by-basis of food scarcity mitigated only by being able to find daily casual labour or some other means of income generation (Walsh & Jha, 2012). This research study adds further evidence to understanding of this important trend and notes that it is occurring in all the countries surveyed but is perhaps most notable in the case of Thailand, where it would have been least expected.

The case of the EWEC is more complicated than might have been expected. Conceptually, it would be expected that communities within the EWEC region should be expected to have benefited from the improved economic conditions and, therefore, to experience fewer experiences of food insecurity. However, this is not apparent and there are various reasons why this might be the case (irrespective of the argument that the basic premise is unsupported by evidence), including the limited amount of time since the corridor was introduced, as it takes a period of time (indeterminate to measure under current conditions of understanding) for the benefits of presence within the corridor to be established. Second, the areas within the corridor are themselves varied in nature, with both above and below mean levels of income or GDP achieved by community members within and without – this might be an issue of policy, since (irrespective of the desire to have equality of income generation within a jurisdiction) different communities have different initial levels of opportunity, comparative advantage and so forth and, so, membership of a corridor will affect communities unequally.

The GMS is widely understood to be a place wherein significant opportunities for growth through agriculture and agro-industrial production. The example of Thailand shows how this might be achieved, through a combination of public and private sector activities. However, irrespective of these initial conditions, food insecurity persists and this shows that there are serious market and governmental failures that separate people from the potential for production and realization of the opportunities in front of them and their ability to take advantage of those opportunities. There is considerable scope for improvement here.

## **5. Conclusion**

### **5.1. Main Findings**

The main findings of this study relate to the continued and perhaps unexpected prevalence of poverty in the form of food insecurity. This study has contributed to extending knowledge of contemporary food insecurity experiences in four Mekong region countries where such work has not been consistently updated. In general, the trends within the data conform to what would be expected, although there are some interesting country-level variations. That is, there is more evidence of insecurity at the less severe end of the scale and this declines as the severity of the insecurity heightens. It appears that the country with the least amount of severe food insecurity is Vietnam, where intensive efforts at poverty eradication by government agencies appear to be bearing fruit.

Given the previous expectation that food insecurity is predominantly a rural phenomenon, the uncovering of evidence of food insecurity in urban areas, particularly in Thailand but also in all countries surveyed, is an issue that should be of great importance to relevant policy-makers.

There is a series of quite strong correlations between certain demographic variables when predicting food insecurity, most notably between education, income level and access to land. Of these, the most powerful predictor of food insecurity and perhaps the least problematic to tackle is the issue of education. It is not controversial to argue that increasing levels and quality of education is one of the most effective ways that governments can improve social and economic development. Here is further evidence that this would be beneficial.

Although not directly addressed in the research, it is evident that the role of the private sector is important in affecting food insecurity. This is apparent on both the demand and the supply side for food. On the demand side, there is a role in expanding retail and distribution systems such that good quality, low cost food may be made more available to all parts of society. Currently, there are often concerns about the hygiene of food production, particularly in Myanmar (Win & Walsh, forthcoming) and, also, the low level of market development that means that food providers do not have to work very hard to provide good quality alternatives. The popularity of organic food markets in Lao PDR, despite the problems faced in that sector, indicates the growth potential in this area (Southiseng *et al.*, forthcoming).

## **5.2. Limitations**

The project sought to obtain 200 questionnaires from each of four countries, with half of each sample living in an urban area and the other half in a rural area, with that sample also being divided between areas inside the EWEC and outside it. The eight-item FIES instrument was used and additional demographic variables were also to be collected. As it happened, this approach was followed exactly in Thailand and Vietnam. In Lao PDR and Myanmar, additional questionnaires were collected but there were some issues relating to the demographic characteristics obtained. The first limitation, therefore, relates to the relationship between the intended and obtained sample. There are also some minor issues concerning the relationship between the sample and the population where the sampling strategy employed by country research teams did not achieve samples that represented the population as well as they might have done.

Second, it is clear that the nature of the research project has provided a snapshot of food insecurity experiences in certain



places at certain times. It cannot be claimed that the results are fully generalizable across the whole region but, nevertheless, the methodology employed is such that it provides to a reasonably high degree of confidence a description of the four countries involved that can be trusted. Since events continually occur and evolve, the situation facing people with respect to food insecurity will also change.

It is apparent that there are some minor discrepancies between definitions in different countries for some of the country research teams. This is particularly so in the case of land access, since laws relating to land ownership (which is related to access but also different) vary from country to country. Even when ownership-access has been achieved, perhaps through custom and practice rather than observation of the law, this is done in an informal manner without proper registration of title deeds (there may also be some illiteracy which contributes to the problem). There is, consequently, some measure of discretion involved when interpreting these variables across borders.

### **5.3. Recommendations**

Various recommendations have been drawn from the research described above. These include the following:

- More study should be made of the nature of the areas contained within the EWEC area and the ways by which individuals, communities and organizations within it would be able take advantage of opportunities provided by it. There is the potential for the benefits of the corridor to bypass people over which it passes;
- There continues to be a division between life chances and standards of living involving rural and urban settings which will need to be addressed. As Lao PDR

continues to undergo economic development and modernization, the areas which are likely the ones to grow most quickly will be those connected with urban centres in Thailand and Vietnam and, hence, there is the danger of increasing inequality;

- It is obvious that the lengthy periods of military control have had a serious and systematically negative impact on the level of education to which Myanmar people have been able to access, especially in rural areas. This in turn has had a negative impact on the ability of people to improve the quality of their lives and to avoid the problems (at least in some cases) of food insecurity;
- There appears to be a urgent need to improve connections between urban and rural areas to reduce food insecurity and poverty in general. The ability to access market conditions on a more or less equitable basis is one means by which this connectivity might be improved.
- Food insecurity exists in Thailand at higher than expected levels in both urban and rural settings. This situation does not appear to be necessary, especially in the urban locations (when some rural areas are in unfavoured areas) of a country which is a major exporter of fresh and processed agricultural products. Although there are charitable and religious institutions that would seem to exist that would assist in this case, it is evident that there are people not being catered for by those institutions. There is a need for more investigation at the local level to identify why these forms of systems failures exists and how they can be rectified;
- Education, specifically lower levels of education, seems to be linked to all the factors that suggest heightened risk of food insecurity experiences.

Improving both the quality of education and access to it would improve opportunities for people to avoid food insecurity by enabling them to improve the quality of their lives;

- Although life under a monolithic Communist regime has had many negative consequences, it does have the positive advantage that it encourages the kind of social solidarity that reduces the threat of food insecurity among community members. Information from the Vietnamese country report indicates that this sentiment continues. Nevertheless, it is evident that some measure of food insecurity exists, irrespective of the close connection between most people and the land (familial or communitarian connections enable transfer of food resources from one location to another). The first recommendation, therefore, is to recognise this situation and support it by providing greater levels of transportation and virtual infrastructure;
- Education remains the demographic factor most likely to be predictive of food insecurity experiences, not necessarily because of its individual significance but because of its correlations with so many other characteristics (e.g. setting, income). Consequently, efforts should be put into increasing access to good quality education in rural settings in particular. Technology provides more options for community learning, distance learning and self-study;
- Market development (that is, demonstrating and convincing local consumers of the value of previously unknown products and explaining how to use them) is of great importance in helping local producers, particularly in the agricultural sector, to engage with regional and international markets on a more or less equitable basis. Where market development has taken

place, as for example in Vietnam in the case of Vinamilk (Walsh, 2012), producers can diversify the marketing and distribution of their production to include both local and international consumers only when local consumers understand and value the products involved can this diversification take place and there is a role for both public and private sector organizations to promote this development for their own ends. Government agencies can do this at very low cost by making announcements in regularly scheduled media announcements and, with some additional cost, by encouraging popular mass media content providers to use product or category placement;

- More research is, as ever, required to determine the extent to which these results extend across other parts of the countries involved and what other variations exist with respect to demographic characteristics. It has been shown that statistically significant distributions exist with respect to demographic characteristics. It has also been shown that statistically significant distributions exist with respect to demographic characteristics and some interpretation has been provided but additional research might help to determine the validity of such interpretations.

Translating the recommendations into specific policy prescriptions is a complex and contentious process and has been attempted in a separate document.

#### **5.4. Suggestions for Future Research**

It is clear that the relatively high levels of food insecurity experienced in each of the four countries surveyed means that further research is required to understand the various

phenomena better. At first, of course, this will require longitudinal research to track changes within the population as a whole. Second, it will be important to investigate specific areas within the population that are particularly vulnerable to food insecurity. There are likely to be communities which have specific geographic locations which are unfavourable with respect to income generation from agriculture and which have difficulties in accessing public services and market access. It is quite possible that this will involve ethnic minority communities speaking a different language from the nationally mandated dialect and, as mentioned previously, this research project was not able to engage with such communities.

Research might also help in determining the effects of policies introduced to try to reduce food insecurity and poverty more generally. As observed previously, the Vietnamese government in particular has been energetic in using resources to try to reduce poverty and the FIES offers a convenient methodology to measure the extent to which such policies have had a definite impact upon people's lives.

Further consideration of the impact of the EWEC Corridor in terms of poverty reduction is required. It is too simplistic to assume that presence within the corridor will automatically make communities better off than being outside it. That is because communities within the area are heterogeneous with respect to income opportunities and, also, there is a need to establish a suitable period of time before which it would not be appropriate to try to form a judgement. Further, it should not be assumed that there is a uniform distribution of opportunities resulting from the presence of the corridor. For example, for economic success to be achieved, it seems likely that there is a need for a complementary cluster of market conditions which are accessible to corridor-users and that, in the absence of such a cluster, there will be little in terms of

trade creation but there may be some trade diversion (i.e. not much new trade is created but some can be relocated from another area to the local site). Additional instruments to the FIES tool will be needed to identify these effects.

Finally, it has become evident, particularly in the case of Thailand, that precarious living is quite prevalent in urban areas, when it had been thought that food insecurity had been largely eliminated there and that insecurity had become a rural issue. Additional research will be needed to investigate the extent to which such precarity exists in other urban areas and whether it is only a Thai phenomenon, which seems unlikely. Experience of living conditions in, for example, Mandalay in Myanmar, demonstrates that many rural-urban migrants are joining outlying areas and it is far from certain that all will be able to secure stable employment. Even if they did, there would remain the issue of their family members and dependents. There is considerable scope for research in this area.

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