

RURAL NON-FARM EMPLOYMENT IN THAILAND

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ABSTRACT

During the last three decades, rural Thailand has undergone considerable employment diversification in favour of non-farm employment. There was a temporary halt to this process in 1997 and 1998 because of the economic crisis of 1997. However, as the economy overcame the same, the share of rural non-farm employment (RNFE) in total rural employment has again started increasing. Regional variation in the incidence of RNFE is very much evident. Gender bias in RNFE is non-existent. From the eighties, in respect of both male as well as female RNFE, the sectors of manufacturing, commerce and services have emerged as the dynamic sectors of employment creation. At the macro level, agricultural growth and average size of landholding have emerged as the two most important determinants of the growth of RNFE in Thailand. To promote the growth of RNFE, the Thai government should formulate activity-specific and region-specific policies, reduce regional disparity in the concentration of RNFE, extend the same policy with respect to credit, extension, marketing, subsidy etc., as applied to the farm sector to the non-farm sector and replace its 'top-down' approach to rural non-farm sector development by a 'bottom-up approach'.

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Introduction

Recently, many of the developing countries in the world are experiencing falling elasticity of employment with respect to agricultural and formal sector output because of rising capital intensity in these sectors. So also Thailand in South East Asia. Further, the financial crisis in 1997 plunged the Thai economy into recession since the second half of 1997. The total number of unemployed in rural areas increased from 2.4 per cent in February 1997 to 5.3 per cent in February 1999. Rural underemployment also increased from 2 to 3.7 per cent of the labour force (TDRI, 2003) during the same period. Hence, this falling elasticity of employment with respect to agricultural and formal sector output and the existing high level of unemployment and underemployment in rural areas has brought to the forefront the importance of rural non-farm sector to be seen as a viable sector for solution of the problems of the rural unemployment, rural poverty and out-migration in the Thai economy.

Before the World Bank study in 1978 on Rural Non-Farm Employment (RNFE) in developing economies came out, Fuhs and Vingerhoets(1972) in their study advocated the creation of non-agricultural employment opportunities to reduce seasonal underemployment and absorb the growing rural labour force in the Thai economy. Thereafter, only two macro (World Bank, 1983; TDRI, 2003) and some micro studies (Yongyuth, 1982a and 1982b; Banno, 1982; Wichaiwattana, 1982; Tongroj and Yongyuth, 1983; Luechai, Suwarat and Thongchai, 1986; Pradit and Chaiwat, 1991 and United Nation, 1993) have been undertaken in Thai economy to understand the dynamics of this sector. However, most of these studies were conducted in the eighties and in the early nineties (up to 1993). It seems, during the past one decade, studies on this sector in Thailand have been, to a great extent overlooked, in spite of this sector's continuing significant role in employment and income generation. Further, not many studies have been undertaken at the macro level with regard to the size, nature and determinants of rural non-farm employment in Thailand (TDRI's study in 2003 does not discuss the determinants of RNFE).

Majority of the micro studies on rural non-farm and off-farm employment relate to the determinants of household labour supply. Hence, there is lack of a comprehensive country level updated study with regard to the size, composition and determinants of rural non-farm employment in respect of Thailand. Thus, the need, for the present study.

The specific objectives of the study are (i) to assess the trend, nature and magnitude of RNFE in Thailand (ii) to analyse the determinants of RNFE in Thailand and (iii) to derive policy implications on various aspects of RNFE in the light of this study.

Concept of Rural Non-Farm Employment : Broadly speaking, RNFE can be defined as all types of employments in rural non-agricultural activities. This necessitates a definition of Rural Non-Farm Activities. However, in the rural areas, there emerges a complex pattern of different activities, with widely varying degrees of emphasis on farm and non-farm work. These complexities, are difficult to embrace in any specific set of definitions or through established system of collecting data about enterprises, occupations and employment status (Basant and Kumar, 1994). In our present study, RNFE implies broadly, all rural employments in non-agricultural activities, such as mining & quarrying, manufacturing, constructions, repair & demolition, electricity, gas, water & sanitary services, commerce, transport, storage & communication, and services in rural areas.

Methodology

The study is primarily based on secondary data of the Labour Force Survey of National Statistics Office (NSO) of Thai Government. NSO conducts four rounds of survey on labour force participation every year. We have used the peak season data collected in round-3 for our work, as we feel, this would give a better picture of RNFE in comparison to other rounds. Again, for classifying the areas as rural and urban, we have adopted the municipal and non-municipal classification of areas by the Thai Government and have taken the non-municipal areas as rural areas as is the practice with Thai Government, Thai academicians and

researchers, and International organisations like ILO, World Bank. The period of study was 1971-2000. To explain the determinants of RNFE, we have used the temporal data of both Labour Force Survey and Agricultural Statistics of Thailand from 1985-2000. Finally, some qualitative insights gained from some case studies have been incorporated in the analysis.

Structure and Growth of RNFE in Thailand

Trends in Rural Non-Farm Employment in Thailand : Table 1 describes the trends with regard to farm and non-farm employment in Thailand. It is clear from this Table that rural Thailand has undergone considerable employment diversification over the last three decades. Non-farm employment in the rural sector was 12.08 per cent of the total rural employment in 1971, which increased to 38.74 per cent in the year 2000.

Table 1: Structure and Growth of Rural Farm and Non-farm Employment in Thailand (1971-2000)

Farm(F) Non-Farm(NF)	Percentage Share				Growth Rate ¹			
	1971	1981	1991	2000	1971-81	1981-91	1991-00	1971-00
F	87.92	81.82	71.87	61.26	2.93	0.67	-1.52	0.71
NF	12.08	18.18	28.13	38.74	7.95	6.54	3.32	6.22

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

The average annual growth rate of RNFE during the period 1971-2000, has been 6.22 per cent which is otherwise a good rate of growth. However, the decade 1991-2000 saw a reduced growth rate in comparison to previous two decades. This is mainly because of the economic crisis that Thailand experienced in 1997.

Year-wise status of farm and non-farm employment from 1985-2000 has been reproduced in Table 2. It is clear from this Table that the share of RNFE in total rural employment has continuously increased till 1996. However, for two consecutive years, i.e. 1997 and 1998 it has decreased. This confirms the effect of the economic crisis of 1997. Interestingly, till 1997, the share of female RNFE was consistently below the share of male RNFE for each year starting from 1985. But from 1998 i.e. after the crisis, the share of female RNFE has surpassed the corresponding share of male RNFE.

Table 2: Percentage Share of Rural Farm and Non-Farm Employment in Thailand: 1985-2000

Year	% of Rural Farm Employment	% of RNFE	% of Male RNFE	% of Female RNFE
1985	80.25	19.75	20.84	18.49
1986	78.65	21.35	22.34	20.22
1987	75.80	24.20	24.50	23.86
1988	78.01	21.99	22.90	20.96
1989	78.38	21.62	22.35	20.79
1990	75.69	24.31	25.06	23.46
1991	71.87	28.13	28.66	27.50
1992	72.17	27.83	28.88	26.60
1993	68.19	31.81	32.58	30.90
1994	67.06	32.94	34.12	31.55
1995	63.71	36.29	37.75	34.55
1996	61.60	38.40	39.96	36.50
1997	62.60	37.40	38.75	35.75
1998	63.69	36.31	35.72	37.06
1999	60.54	39.46	38.38	40.83
2000	61.26	38.74	38.07	39.59

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

Trends and Growth in Male and Female RNFE : Table 3 shows the trend and growth in respect of male and female RNFE in Thailand. Male RNFE share during the period 1971-00 has increased by 24.62 percentage points, whereas female RNFE share has increased by 29.01 percentage points. Female RNFE share was below male RNFE share in 1971, 1981 and 1991. However, in 2000 it has surpassed male RNFE share. It is also evident from this Table that over the period 1971-2000, the average annual growth rate of male RNFE has been 5.94 per cent, whereas the same for female RNFE has been 6.60 per cent. This implies that the degree of female employment diversification in rural Thailand is more pronounced than the degree of male employment diversification.

Table 3: Male and Female RNFE in Total Male and Female Employment and Their Growth Rates

Male (M)	Percentage Share				Annual Growth Rate			
	1971	1981	1991	2000	1971-81	1981-91	1991-00	1971-00
Female (F)	13.45	19.89	28.66	38.07	7.64	6.14	3.21	5.94
M	10.58	16.31	27.50	39.59	8.36	7.05	3.44	6.60

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

Trends in RNFE across Regions in Thailand : Table 4 presents the trends in RNFE at the level of four recognised regions in Thailand. In 1971, in terms of share of RNFE, the Central Region, Southern Region, Northern Region and North-Eastern Region were ranked in descending order. Their shares of RNFE were 23.5, 11.3, 8.3 and 7.3 per cent, respectively. In 2000, after 29 years also, there is no change in this ranking. In 2000, the Central Region had the highest share (67.7 per cent) of RNFE and it has maintained its supremacy in this respect. The North-Eastern Region is at the bottom and its share of RNFE is 29 per cent only. This reveals that there is regional variation with regard to the incidence of RNFE.

Table 4: RNFE in Different Regions in Thailand: 1971-2000

Year	RNFE(%)				
	CR	NR	SR	NER	Thailand
1971	23.5	8.3	11.3	7.3	12.08
1981	31.8	15.1	24.8	8.6	18.18
1983	36.7	19.0	25.3	10.6	21.30
1985	33.5	19.3	26.5	10.6	19.75
1986	38.9	20.5	28.7	10.4	21.35
1987	40.6	23.8	31.4	12.5	24.20
1988	37.3	21.3	28.4	11.9	21.99
1989	43.1	19.2	27.9	9.5	21.62
1990	47.1	22.0	29.7	11.6	24.31
1991	50.6	25.5	32.7	15.7	28.13
1992	50.3	27.4	34.0	13.7	27.83
1993	56.5	31.6	35.1	16.5	31.81
1994	55.0	32.8	36.8	19.0	32.94
1995	58.7	35.6	40.3	22.6	36.29
1996	61.8	37.2	37.0	25.4	38.40
1997	62.2	39.8	37.6	21.6	37.40
1998	60.9	33.7	39.6	21.7	36.31
1999	61.5	34.3	39.9	28.2	39.46
2000	67.7	39.7	48.1	29.0	38.74

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

Note: CR-Central Region, NR-Northern Region, SR-Southern Region, NER-North Eastern Region.

Composition of RNFE in Thailand : As is evident from Table 5, the composition of RNFE has changed over time. In 1971, it was the services sector, which had the highest percentage share (4.24) among all the sectors of RNFE, followed by the commerce sector (4.02).

Table 5: Sectoral Distribution of RNFE in Thailand: 1971-2000

Industry Category	Persons			
	Percentage Share in Total Rural Employment			
	1971	1981	1991	2000
Mining & Quarrying	0.11	0.26	0.19	0.13
Manufacturing	2.38	5.15	8.51	12.23
Constructions, Repair and Demolition	0.72	1.57	3.50	3.84
Electricity, Gas, Water and Sanitary Services	0.02	0.17	0.19	0.30
Commerce	4.02	5.07	7.63	10.66
Transport, Storage and Communication Services	0.59	0.96	1.84	1.62
	4.24	5.00	6.27	9.96
RNFE as a Whole	12.08	18.18	28.13	38.74
Industry Category	Males			
	Percentage Share in Total Rural Employment			
	1971	1981	1991	2000
Mining and Quarrying	0.17	0.40	0.26	0.20
Manufacturing	2.09	5.13	7.36	10.83
Constructions, Repair and Demolition	1.24	2.57	5.46	5.93
Electricity, Gas, Water and Sanitary Services	0.03	0.30	0.30	0.46
Commerce	3.32	3.94	6.20	8.79
Transport, Storage and Communications Services	1.11	1.73	3.12	2.72
	5.49	5.82	5.96	9.14
Male RNFE as a Whole	13.45	19.89	28.66	38.07
Industry Category	Females			
	Percentage Share in Total Rural Employment			
	1971	1981	1991	2000
Mining and Quarrying	0.04	0.10	0.10	0.05
Manufacturing	2.71	5.16	9.87	13.97
Constructions, Repair and Demolition	0.14	0.48	1.19	1.21
Electricity, Gas, Water and Sanitary Services	0.00	0.03	0.05	0.10
Commerce	4.80	6.31	9.32	13.00
Transport, Storage and Communications Services	0.00	0.12	0.34	0.28
	2.84	4.11	6.62	10.97
Female RNFE as a Whole	10.53	16.31	27.49	39.58

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

However, in the year 2000, manufacturing sector's share in RNFE is the highest (12.23 per cent) followed by commerce sector (10.66 per cent). This implies that, there is also sectoral diversification of employment within the rural non-farm sector. With regard to composition of male RNFE, it is seen that employment in the services sector formed the highest percentage share in 1971 and 1981. However, manufacturing sector replaced this sector as the leading sector of employment in 1991 and 2001. Regarding composition of female RNFE, the commerce sector was the leading sector in 1971 and 1981. However, in 1991 and 2000, it was overtaken by the manufacturing sector.

Analysing the growth rate of the various sectors of RNFE over the period 1971-2000 (Table 6), it is seen that, employment in electricity, gas, water and sanitary services sector (EGWSS) experienced the highest growth rate, followed by the manufacturing sector.

Table 6: Growth Rate of Employment in Various Sectors of RNFE in Thailand

Industry Category	Annual Growth Rate: 1971-2000		
	Persons	Males	Females
Mining and Quarrying	2.72	2.66	2.53
Manufacturing	8.55	7.96	7.57
Constructions, Repair and Demolition	3.90	7.69	9.34
Electricity, Gas, Water and Sanitary Services(EGWSS)	13.00	11.98	—
Commerce	5.54	5.53	5.24
Transport, Storage and Communications Services	5.69	5.25	—
	5.09	3.89	6.52
RNFE as a Whole	6.22	5.94	6.60

Source: Author's calculation based on various issues of Labour Force Survey, NSO, Thailand.

Annual growth rate of male employment in different sectors of RNFE reveals that during the period 1971-2000, it was the EGWSS sector which experienced the highest growth. The next highest growth rate was in the manufacturing sector. In terms of sector-wise growth rate of employment in female RNFE, during the same period, constructions, repairs and demolition sector topped the list with an annual growth rate of 9.34 per cent, followed by the manufacturing sector with an average annual growth of 7.57 per cent.

Determinants of RNFE in Thailand

In Thailand, some studies have been undertaken at micro level especially at the household level (Youngyuth,1982; Banno,1982; Wichaiwattana,1982; Tongroj and Yongyuth,1983; Rief and Cochrane,1990) to find out the determinants of household labour supply in off-farm or non-farm employment. These studies explain multiple cropping index, number of adults in the family, household land size, wage rate in non-farm employment, education, water availability etc. as being the important determinants of household labour supply to the off-farm or non-farm sector. However, the literature on the determinants of RNFE at the macro level is rather scanty. World Bank's study in 1983 and Luechai, Suwarat and Thongchais' study in 1986 showed that agricultural growth was an important factor determining the growth of RNFE in Thailand. After that we do not have any other study undertaken at the macro level to explain the determinants of RNFE in Thailand. Here we make an attempt to undertake an analysis of the determinants of RNFE at the country level based on the last 15 years data (1985-2000) of Labour Force Survey and Agricultural Statistics of Thailand.

Table 10: Selected Economic Indicators and Determinants of RNFE in Thailand

Year	Percentage of rural non-farm employment to total rural employment Y	Yield per rai of crops (food and non-food) (KGs) X ₁	Irrigation Ratio X ₂	Average Landholding Size (in rai) X ₃	Percentage of literate workers to total rural workers in RNFS X ₄
1985	19.75	112.66	0.20	26.36	94.89
1986	21.35	110.03	0.21	26.28	95.39
1987	24.20	120.30	0.22	26.29	94.86
1988	21.99	134.91	0.20	26.14	96.21
1989	21.62	149.77	0.21	26.06	96.51
1990	24.31	176.94	0.22	26.04	96.39
1991	28.13	175.42	0.22	25.93	96.65
1992	27.83	180.37	0.22	25.64	96.49
1993	31.81	178.88	0.24	25.37	97.04
1994	32.94	195.67	0.23	25.30	97.34
1995	36.29	227.97	0.23	25.23	97.35
1996	38.40	223.66	0.23	24.98	96.98
1997	37.40	214.09	0.23	24.72	96.80
1998	36.31	205.05	0.24	24.44	97.58
1999	39.46	199.02	0.24	23.17	97.44
2000	38.74	217.51	0.25	23.02	97.66

Source

- (i) Labour Force Survey 1985-2000, Round-III.
- (ii) Agricultural Statistics of Thailand, Crop Year 1984-85 to 2001-02.

We wanted to use the cross section data for two different time periods in this analysis. Unfortunately, we do not have such data for Thailand in any published reports. Efforts to prepare such a database proved unsuccessful as neither the census report nor the labour force survey provide industry-wise employment data for rural non-municipal areas for all the 76 provinces of Thailand. Province-wise census reports although provide such industry-wise employment data, these data do not have the urban and rural break-ups. Hence, we had to prepare a time series database of industry-wise employment of workers in non-municipal areas for the whole Kingdom based on labour force survey with some other selected economic indicators derived from reports of Labour Force Survey and Agricultural Statistics of Thailand (Table 10 above presents these selected economic indicators and determinants of RNFE in Thailand). This database includes year-wise data from 1985 to 2000 on (i) percentage of rural non-farm employment to total rural employment (Y), (ii) yield per rai² of crops (food and non-food) (X_1), (iii) irrigation ratio (total irrigated area/gross cropped area) (X_2), (iv) average landholding size (in rais) (X_3), and (v) percentage of literate workers to total workers in rural non-farm sector (X_4). This database has been used to run a linear regression in which percentage of rural non-farm employment to total rural employment (Y) is the dependent variable and the rest are independent variables.

The linear regression model run is as follows:

$$Y = a + b_1X_1 + b_2X_2 + U$$

Where Y = Percentage of rural non-farm employment to total rural employment

a = The intercept

X_1 = Yield per rai of crops (food and non-food)

X_2 = Irrigation ratio (Total irrigated area/Gross cropped area)

X_3 = Average landholding size (in rais)

X_4 = Percentage of literate workers to total workers in rural non-farm sector

U = Disturbance term

The results of this regression run are as follows:

$$Y = 235.682 + 0.695X_1 + 0.213X_2 - 0.363X_3 - 0.241X_4$$

$$(1.658) \quad (4.021)^* \quad (1.270) \quad (-2.443)^{**} \quad (-1.388)$$

$$F = 44.932^*, R^2 = 0.942, \text{ Adjusted } R^2 = 0.921, d(\text{Durbin-Watson}) = 1.591$$

Figures in the parentheses are 't' values.

* = Significant at 1 per cent level, ** = Significant at 5 per cent level.

This regression analysis reveals that the predictive value of this model is very good as it explains 94 per cent variation in Y values. Yield per rai of crops (X_1) and average landholding size (X_3) are the two statistically significant explanatory variables determining the level of RNFE in Thailand. The coefficient for the former is positive and the latter negative. This implies that in Thailand, the growth of rural non-farm employment is mainly attributed to agricultural prosperity and land/asset constraints. The coefficient for literacy variable is negative and is not also statistically significant. This means employment diversification in rural areas is not based on literacy. However, because of non-availability of appropriate data on urbanisation and infrastructure, we could not include them in our model.

Village Case Studies

Our above analysis on RNFE in Thailand is primarily based on secondary data. However, we have supplemented it with the dynamics of this sector at the micro level by observing some cases of good practices in employment generation at the village level.

The Study Area : This observation was undertaken in two villages in the province of Lampang and Chiang Mai. The two villages selected were, Thong Maen Nuew in Muang district and Kua Mung in Sarapee district. These villages were selected after an initial discussion with the respective district officials. In each village, a village headman or committee members of Tambon(Province) Administration and the chief/Asst. Chief of the Group Activity Centre were interviewed. This was followed by a survey of the women's group activity centres. In Thong Maen Nuew village, one Women's Group Activity Centre which was manufacturing processed foods and ceramic and other types of dolls was studied. In Kua Mong village, one Women's Group Activity Centre manufacturing wearing apparels was studied

RNFE- Thong Maen Nuew Village : This Women's Group Activity Centre in this village came into being in 1997. It was started with 25 members. Now the total membership is 142. Most of these members work in the day in the paddy field in peak season and return to this centre late afternoon or evening. In the agriculturally slack season, they mostly work here fulltime. It has two units - one food processing and the other doll making. The former has 70 members and the latter 72 members. Average income for a person who works for 8 hours per day is around Thai Baht 6000 per month. From the gross profit, 20 per cent is saved as capital, 20 per cent is given as honorarium to the employees, 5 per cent is spent on maintenance of assets and buildings, 5 per cent is earmarked for social benefit and the rest 50 per cent is distributed among the members. Most of the raw materials used are locally procured. Their important products are sweetened-fried-rice-pack, ceramic and other dolls. The technology used is labour intensive and primarily based on local knowledge. Cent per cent of the products produced are sent to the market. They have a marketing officer, who takes care of the marketing needs. Products are sent to Chiang Mai and other important cities including Bangkok for sale. From our interaction with all the actors involved in this Women's Manufacturing Group Activity Centre, it was evident that the food processing unit was started, as there was surplus local production of rice and other raw materials

such as watermelon. This vindicates our finding at the macro level that it is agricultural growth which has helped non-farm employment to grow in the rural areas of Thailand. The other reason given for the start of this unit was availability of skilled labour in the village to perform this manufacturing activity and strong direct and indirect support made available by the various government departments in the form of finance, marketing and training for skill upgradation.

In case of the ceramic and other doll manufacturing unit, it was again local availability of some raw materials, skilled manpower and direct and indirect support made available by the various government departments in the form of finance, marketing and training for skill upgradation, which have prompted them to start this unit. Besides these, availability of infrastructures such as good approach roads and electricity have also played their positive role in this regard.

RNFE-Kua Mung Village : The Manufacturing Women's Group Activity Centre in this village was established in the year 1993. It manufactures wearing apparels/garments. It basically operates on a sub-contracting system. The raw materials and other capital inputs including tailoring machines are provided by the factory owner in the city. It gives regular employment to 20 women. The average net earning per worker is between Thai Baht 3500-4000. Our interaction with various actors involved shows that comparatively low wage rate, availability of skilled labour, infrastructures such as good approach roads and electricity in the village has facilitated the growth of this manufacturing unit.

Public Programme for Development of RNFE in Thailand

Thailand did not have any definite plan in the past for development of the rural non-farm sector *per se*. Up to the fourth Five Year Plan period, whatever was happening in the non-farm sector in Thailand, was in the context of the overall plans and programmes of the Government on rural and regional development. Even here, the delivery system was highly centralised and was based on 'top to bottom' approach. There was no

provision of planning at the periphery level. All these came in the way of development of the rural non-farm sector. However, in the fifth development plan (1982-86), some visible steps were taken in the field of rural development to increase income and employment generation in the rural areas. These steps included, (a) to diversify industrial production in rural areas by means of increased export and enhancement of agricultural productivity, (b) improved delivery of social services in the rural areas and (c) area-specific approach to eradication of poverty. These measures helped to diversify rural income and employment generation. The sixth and seventh development plans laid more emphasis on diversification of industry in terms of products and to new regions as well as providing supporting infrastructure. However, it is with the Eighth Plan (1997-2000), that the real rural non-farm sector development measures were proposed. For the first time, the role of participation of the state, private businesses, NGOs and local communities in rural development especially in rural industrialisation and non-farm sector promotion was highlighted. These measures included, training of the rural people for entrepreneurship development, helping them to find a market and diversify their production and business base in the rural areas. The economic crisis of 1997 redoubled the initiative of the Government on this front. Rural resettlement schemes for the urban returnees in the form of creation of more of rural non-farm works were taken up. Schemes and plans like, industrial village project, rural enterprise development, micro credit and community saving, skill training of youth and women etc., were taken up with the ultimate objective of making the rural areas self-sufficient and economically viable.

The present policies on rural development have very effective measures to promote rural non-farm employment and income within their overall framework of rural development. Projects like Small and Medium Enterprises(SMEs), One Tambon One Product(OTOP), Village Funds etc., are exclusively meant for rural enterprise development which necessarily also involve the promotion of the rural non-farm sector income and employment.

Concluding Observations

During the last three decades, Thailand's rural sector has undergone considerable employment diversification in favour of non-farm employment. There was a temporary halt to this process in 1997 and 1998 because of the economic crisis of 1997. Thereafter, as the economy recovered, share of RNFE in total rural employment has again started increasing. The degree of female employment diversification in rural Thailand in favour of non-farm employment is more pronounced in comparison to male employment diversification. Regional variation in the incidence of rural non-farm employment is very much evident. Over the last three decades, there has been no change in the position of the four regions with regard to the share of RNFE. Both in 1971 and 2000, the Central Region was having the highest share of RNFE, whereas the North-Eastern Region was having the lowest. There has also been some sectoral diversification of employment within the rural non-farm sector during this period, 1971-2000. For RNFE as a whole, in 1971, it was the services sector and in 2000 it was the manufacturing sector which had the highest percentage share among all the sectors of RNFE. At the macro level, agricultural growth and average size of landholding are the two most important determinants of the growth of RNFE in Thailand. Observation from cases of good practices in RNFE suggests that besides agricultural growth; availability of infrastructure, public provision in the form of finance, marketing and training, and resource endowment of the area, are the important factors influencing the access of the people to RNFE at the village level. Finally public policy on promotion of RNFE in Thailand has become explicit in the late nineties and early to the thousand as compared to the seventies and eighties.

Since the linkage between farm and non-farm sector has been proved to be conclusive, public policy should be tailor-made to exploit and promote this link. This would ensure growth of productivity in farm sector and growth of employment and income in the non-farm sector in the rural areas. The state should extend the same policy with respect to

credit, extension, marketing, subsidy etc. as applied to the farm sector, to the non-farm sector.

It is evident from our analysis that the non-farm sector is heterogeneous across activities and regions. Hence, one uniform policy measure may not be desirable to promote this sector and employment in it. Public policy, therefore, should be activity-specific and region-specific. Amongst the various non-farm sectors in rural areas, policy makers have favoured the manufacturing sector to the neglect of others. This preferential treatment is with regard to subsidised credit, subsidies on inputs used, tax concessions etc. This needs to be changed. All other important sub-sectors of rural non-farm sector which have potential for growth and employment creation should also be extended the same facilities by the Thai government.

Regional disparity with regard to the incidence of RNFE needs to be reduced. Although we feel that some degree of regional variation in RNFE is natural, going by the resource endowment of the respective regions, we cannot justify the continuance of the whole of variation. Variation incidence because of historical accidents or policy bias needs to be offset and overcome.

Finally, the 'top-down' approach to rural and rural non-farm sector development should be replaced by the bottom-up approach.

Notes

1. Growth rate has been calculated by applying the formula

$$r_g = (P_n/P_0)^{1/n} - 1$$
2. One Rai in Thailand is approximately equal to 0.40 acres.

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