

Female Labour Force Participation and Economic Development in West Papua

Female Labour Force Participation
and Economic Development in West Papua

By

Julius Ary Mollet

**CAMBRIDGE
SCHOLARS**

P U B L I S H I N G

Female Labour Force Participation and Economic Development in West Papua,
by Julius Ary Mollet

This book first published 2011

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Copyright © 2011 by Julius Ary Mollet

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-4438-2687-1, ISBN (13): 978-1-4438-2687-7

*This book is dedicated to the people of West Papua
to enhance female entry into paid work.*

TABLE OF CONTENTS

List of Tables	x
List of Figure	xii
List of Acronyms	xiv
Preface	xvi
Acknowledgements	xvii
Chapter One.....	1
Introduction	
1.1 The Background of the Study	
1.2 Research Aims and the Objectives of the Study	
1.3 Location of Research Sites	
1.4 Organisation of the Book	
Chapter Two	8
Female Labour Force Participation and Economic Development: Theory and Literature Review	
2.1 Introduction	
2.2 The Concept of Labour Force Participation	
2.3 Labour Force Participation Approaches in LDCs	
2.4 The Female Labour Supply	
2.5 FLFP and Economic Development	
2.6 Lesson of FLFP in Developing Countries	
2.7 Conclusion	
Chapter Three	44
Research Methodology	
3.1 Introduction	
3.2 The Data Sources of Macro Approach	
3.3 The Data Sources of Micro Approach	
3.4 Variables and their Measurement	
3.5 Conclusion	

Chapter Four	55
Economic Development and Labour Market in West Papua	
4.1 Introduction	
4.2 West Papuan Local Government Policies	
4.3 Structure of the West Papuan Economy	
4.4 The Structure of the West Papuan Labour Market	
4.5 Conclusion	
Chapter Five	84
Female at Work and Economic Development in West Papua	
5.1 Introduction	
5.2 An Understanding of West Papuan Culture	
5.3 Women and the Division of Labour in Papuan Societies	
5.4 Women and Development in West Papua	
5.5 Analysis the Pattern of FLFP and Economic Development in West Papua	
5.6 The Trend of FLFP and Economic Development in West Papua	
5.7 Employment by Sector of Economic Activity and GDPs of West Papua	
5.8 Determinants of FLFP at the Provincial Level and in Selected Regencies in West Papua	
5.9 Conclusion	
Chapter Six	131
The Employment Patterns of Indigenous and Non Indigenous Women in Kota Jayapura, Jayawijaya, Manokwari, Merauke and Kota Sorong	
6.1 Introduction	
6.2 Overall Features of Indigenous and Non-indigenous Female Employment in Kota Jayapura, Jayawijaya, Manokwari, Merauke, Kota Sorong	
6.3 Specific Aspects of the Employment Patterns of Indigenous and Non-indigenous Women	
6.4 Empirical Results of Multivariate Analysis of Women's Income and Social-economic Characteristics of Five Regencies of West Papua	
6.5 Conclusion	

Chapter Seven.....	167
Time Allocation of Employed Women and a Comparison of Women's Employment before and after Special Autonomy for West Papua	
7.1 Introduction	
7.2 Time Allocation – An Analysis of the Evidence in Selected Regencies of West Papua	
7.3 Comparison Studies of Female Employment before and after Special Autonomy for West Papua	
7.4 Conclusion	
Chapter Eight.....	219
Conclusion	
8.1 Undertaking the Research	
8.2 The Conclusions Drawn from the Research Findings	
8.3 Implications for Policy	
References	236

LIST OF TABLES

Table 1.1	Characteristics of the Five Selected Regencies in West Papua
Table 2.2	Benefit from Specialisation and Exchange (Case I Absolute Advantage)
Table 2.3	Benefit from Specialisation and Exchange (Case II Comparative Advantage)
Table 2.4	Daily Activities and Time Allocation of Women and Men in Micro-finance
Table 3.1	Distribution of Sample Size Classified by Sector in Five Regencies in West Papua
Table 3.2	Time Allocation Matrix in Agriculture Sector
Table 3.3	Time Allocation Matrix in Manufacturing and Services
Table 4.1	Development Strategies of West Papuan Governors
Table 4.2	Transmigration Settlement among Regencies of West Papua
Table 4.3	Employed Population Classified by Main Activities, 2009
Table 4.4	Number of Civil Servant in Regencies of West Papua, 2007
Table 4.9	Distribution of Civil Servants Classified by Education, 2007
Table 5.1	Pattern of Decision-making Between Men and Women in the Highland Societies of West Papua
Table 5.2	Labour Force and Annual Growth Rates of Labour Force According to Gender for West Papua
Table 5.3	Distribution of the Female Population in the Labour Force in West Papua Classified by Educational Attainment, 1990-2005
Table 5.4	Proportion of Labour Force in Agriculture, Manufacturing and Services by Gender in West Papua, 1990 – 2007
Table 5.5	Distribution of Local Government Officials Classified by Gender in 2004
Table 5.6	Female Population of Working Age and Female Labour Force Participation Rate West Papua, 1980-2005
Table 5.7	Labour Force Participation Rate West Papua, 1971-2006
Table 5.8	West Papua Population, Real GDP, and Real GDP per Capita, 1980-2003
Table 5.9	Regression Coefficient for Equation of FLFP and real GDP per capita
Table 5.10	Numbers and Share of Employment in Agriculture, Manufacture and Services Sectors, 1980-2005
Table.5.11	West Papua GDP and Its Industry Share, 1980-2005
Table.5.12	Female Employment and GDP Share in West Papua Based on Industry from 1980-2005
Table.5.13	Age and Labour Force Participation Rate of Prime-age Females
Table 5.14	Education and Prime-age Female Labour Force Participation Rates
Table 5.15	Marital Status and Prime-age Female Labour Force Participation Rates

Table 5.16	Size of Household and Prime-age Female Labour Force Participation Rates
Table 5.17	Ages and Younger Female Labour Force Participation Rates
Table 5.18	Education and Young Female Labour Force Participation Rates
Table 5.19	Marital Status and Younger Female Labour Force Participation Rates
Table 5.20	Size of Household and Younger Females Participation Rates
Table 5.21	Age and Older Female Participation Rates
Table 5.22	Education and Older Female Participation Rates
Table 5.23	Marital Status and Older Female Participation Rates
Table 5.24	Size of Household and Older Female Participation Rate
Table 6.1	Education Distribution of Employed Women Classified by Occupation
Table 6.2	Distribution of Employed Women Classified by Income and Employment Status
Table 6.3	Distribution of Employed Women Classified into Education and Industry (A, M, S)
Table 6.4	Distribution of Employed Women According to Income and Industry
Table 6.5	Distribution of Employed Women Classified into Education and Religion
Table 6.6	Distribution of Employed Women Classified into Income and Religion
Table 6.7	Distribution of Employed Women Classified into Education and Marital Status
Table 6.8	Distribution of Employed Women Classified into Income and Marital Status
Table 6.9	Distribution of Employed Women Classified into Income and Household Size
Table 6.10	Employed Women Classified by Education and Working Hours
Table 6.11	Distribution of Women Classified by Income and Working Hours in Five Selected Regencies
Table 6.12	Parental Educational Attainment
Table 6.13	Percentage of Father's and Daughter's Educational Level at her First Entry Job
Table 6.14	Variables in the Equation of Women's Income
Table 7.1	Time Allocation of Women Employed in the Agriculture Sector
Table 7.2	Time Allocation of Indigenous and Migrant Women in Manufacturing Sectors Classified by Regency
Table 7.3	Time Allocation of Women Employed in the Services Sector
Table 7.4	Population of Indigenous and Non-indigenous Women Categorised by Sectoral Employment in Five Selected Regencies in West Papua
Table 7.5	Specific Indicators of Women's Employment in Jayawijaya and Kota Jayapura
Table 7.6	Proportion of Local Government Officials between 1997 and 2007

LIST OF FIGURES

- Figure 1.1 The Map of West Papua
- Figure 2.1 Share of Female in Economic Activities, 2000
- Figure 2.2 Utility of Household Consumption Two Commodities (Z1 and Z2)
- Figure 2.3 Gendered Welfare States Framework
- Figure 4.1 Composition of Contribution to the West Papuan GDP Including the Mining Sector, 2007
- Figure 4.2 Composition of Contribution to the West Papuan GDP Excluding the Mining Sector , 2007
- Figure 4.3 Composition of Contribution to Employment Classified by Sector, 2007
- Figure 4.4 Population 5 Years of Age and Over by Educational Attainment, 2004
- Figure 4.5 Percentage of People under Poverty Line, 1999-2007
- Figure 4.6 Distribution of Employment Classified by Main Industries, 1999-2007
- Figure 5.1 The Pattern of GDP, Population and GDP per capita, 1980-2003
- Figure 5.2 Correlation of Female Labour Force Participation Rate and Real GDP/capita
- Figure 5.3 Female Labour Force Participation Rate in West Papua Classified by Age Group, 2005
- Figure 5.4 Two Highland Papuan Women Working in the Agricultural Sector Walk to the Traditional Market to Sell Agricultural Commodities
- Figure 6.1 Distribution of Age Groups of Employed Indigenous Females
- Figure 6.2 Distribution of Age Groups of Migrant Females Employed
- Figure 6.3 Indigenous Women Selling Agriculture Commodities in their Traditional Market
- Figure 7.1 Indigenous Women Gathering Together after Collecting Staple Food (Sweet Potatoes)
- Figure 7.2 Indigenous Women Preparing to Go Fishing on Sentani Lake, Kota Jayapura
- Figure 7.3 Indigenous Women from Wamena Selling their Agricultural Produce in Kota Jayapura
- Figure 7.4 Indigenous Women Preparing Food for Celebration

Figure 7.5 Traditional Ceremonial (Dancing) of Indigenous Women for
Local Government Official Visit to the Village

Figure 7.6 Women Selling Agricultural Produce on a Road in Jayapura

Figure 7.7 Indigenous Women and Children the Author in a Village in
Jayawijaya

Figure 7.8 The City of Kota Jayapura

Figure 7.9 Age Distribution of Women in Jayawijaya and Kota Jayapura

LIST OF ACRONYMS

BP	British Petroleum (BP).
BPS	<i>Badan Pusat Statistik</i> (Centre Bureau of Statistics)
BP3D	<i>Badan Perencanaan dan Pengawasan Pembangunan Daerah</i> (Provincial Executive Development Planning Boards)
Bupati	Head of Kabupaten/Regency
DAK	<i>Dana Alokasi Khusus</i> (Special Allocation Fund)
DAU	<i>Dana Alokasi Umum</i> (General Allocation Fund)
CBD	Centre Business District
CPI	Consumer Price Index
DPU	<i>Departemen Pekerjaan Umum</i> (the Department of General Works)
FLFP	Female Labour Force Participation
GDP	Gross Domestic Product
Governor	Head of Province
GNP	Gross National Product
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus /Acquired Immune Deficiency Syndrome
IFES	International Foundation for Election System
ILO	International Labour Organisation
JHS	Junior High School
LDCs	Less Developed Countries
LNG	Liquid Natural Gas
LIPI	<i>Lembaga Ilmu Pengetahuan Indonesia</i> (Indonesian Sciences Research Institution)
Kabupaten	Regency (Second tier of Local Government headed by a <i>Bupati</i>)
Kapolda	<i>Kepala Polisi Daerah</i> (Head of the Provincial Police)
KCI	<i>Kerangka Contoh Induk</i> (Main Outline Example)
Kota	City (Second tier of Local Government Head by Major)
MENA	Middle East and North Africa
MRP	<i>Majelis Rakyat Papua</i> (Papuan People's Assembly)
NGO	Non-Government Organisation
NKS	Nomor Kode Sampel (NKS) Sample Code Number

PKK	<i>Program Pengembangan Kecamatan</i> (Sub-district Development Program)
OECD	Organisation for Economic Cooperation and Development
OPM	<i>Organisasi Papua Merdeka</i> (Papuan Independent Movement)
Pangdam	<i>Panglima Daerah Milite</i> (Territorial Military Commander)
PDAM	<i>Perusahaan Daerah Air Minum</i> (the Local Government State Enterprise)
Perdasus	<i>Peraturan Daerah Khusus</i> (Special Regional Regulation)
PNG	Papua New Guinea
Posyandu	<i>Pos Pelayanan Terpadu</i> (Integrated Health Service post)
PT	<i>Perusahaan Terbatas</i> (Company/Firm)
Puskesmas	<i>Pusat Kesehatan Masyarakat</i> (Public Health Centre)
PS	Primary School
PSK	<i>Pusat Studi Kependudukan</i> (Centre of Population Studies)
RESPEK	<i>Rencana Strategis Pembangunan Kampung</i> (Planning Strategy Villages Development)
SAL	Special Autonomy Law
SAKERNAS	<i>Survey Tenaga Kerja Nasional</i> (National Labour Survey)
Sekda	<i>Sekretaris Daerah Provinsi Papua</i> (Regional Secretary Office for the Province of Papua)
SHS	Senior High School
SMAN	<i>Sekolah Menengah Atas Negeri I</i> (a Public Senior High School)
STIE	<i>Sekolah Tinggi Ilmu Ekonomi</i> (School of Economics)
SUSENAS	<i>Survei Sosial Ekonomi</i> (National Socio-Economic Survey)
UAE	United Arab Emirate
UNDP	United Development Program
UNTEA	United Nation Temporary Executive Authority
UN	United Nations
Rp	<i>Rupiah</i> (Indonesia Currency)
SE	<i>Survei Ekonomi</i> (Economic Survey)
UU OTSUS	<i>Undang Undang Otonomy Khusus</i> (Special Autonomy Regulation)
YPPK	<i>Yayasan Pendidikan Persekolahan Katholik</i> (Catholic Educational Foundation)
YPK	<i>Yayasan Pendidikan Kristen</i> (Protestant Educational Foundation)

PREFACE

The reason for undertaking this study springs from the desire to answer the following questions: is there a relationship between female labour and socio-economic development in West Papua? How can West Papuan women's opportunities for employment in paid work be enhanced in order to improve their socio-economic welfare? There are several associated issues which need to be considered in order to address these questions.

This book is designed for those people interested in the study of labour economics particularly in less developed countries (LDC). The main objective of this book is to give insight into the role of female labour and economic development in West Papua. This book consists of eight chapters. The salient features of the various chapters as follows:

Chapter One discusses the main characteristics of the study and covers the background, aims and objectives as well the approach that is used in the study. Chapter Two reviews fundamental ideas of economic development, female labour supply, female labour force participation (FLFP), the relationship between FLFP and development, and the lessons of FLFP in developing countries. Chapter Three presents the research method that was used in the study which includes both micro and macro approaches. Chapter Four considers the topic of West Papuan local government policies, the structure of the West Papuan economy and society as well its labour market. Chapter Five considers several practical aspects of females at work and economic development in West Papua including an outline of Papuan culture, the division of labour in Papuan societies, the pattern of FLFP and economic development, and the determinants of FLFP. Chapter Six discusses the employment patterns of indigenous and non-indigenous women. Chapter Seven discusses women's time allocation and compares female employment before and after West Papuan autonomy. Chapter Nine offers a range of conclusions

ACKNOWLEDGEMENTS

I wish to gratefully acknowledge the people who have contributed ideas, assistance, and support in the completion of this book. First and foremost, it is with deep respect that I express my sincere gratitude to Professor Sue Richardson. Her expert advice and enormous encouragement as well her input was important for reshaping the book. Thanks also must go to Dr Gour Dasvarma who provided valuable input for the book. Thankfulness is also expressed to Dr. Maria Flutsch for editing the book and Dr Laurance Lester for her help with the logit regression analysis.

I am also indebted to all research participants in Kota Jayapura, Jayawijya, Manokwari, Merauke, and Kota Sorong for their enthusiastic responses during data collection of this study. I wish also thanks to research assistants for each regency and the local government in West Papua for their support.

Finally, I wish to extend my deepest appreciation to my wife, Erni Kurniawati and my lovely daughters Copenhagenia Chatleen, Sydney Nathasa and Adelaide Claudia Mollet who constantly encouraged me in the process of completing this difficult task. I dedicate this thesis to my parents Frans Mollet and Srijati Mollet. To all those who directly and indirectly contributed to this book, I offer my thanks and will remain forever grateful.

CHAPTER ONE

INTRODUCTION

1.1 The Background of the Study

Female participation in the labour force has demanded the attention of economic analysts ever since it was extensively examined by Barghout (1970), Pampel and Tanaka (1986), Goldin (1989), Junsay and Heaton (1989), Psacharopoulos and Tzannatos (1989), Tansel (2002) and Boserup (2007). It is critical in the examination of female labour behaviour in the household. Killingworth and Heckman (1986, p.103) pointed out that “the behaviour of female labour supply has important implications for many other phenomena, including marriage, fertility, divorce, the distribution of family earnings and male-female differentials.” Recently, female labour force participation (FLFP) has become an essential element in the determination of the performance of economic development in both developed and developing countries.

Some economists believe that there is a strong link between female labour force participation and economic development. These economists show how increased female labour force participation contributes significantly to increased economic development. It can also lead to an increased aggregate economic efficiency as well as the development of the country. For example, empirical studies by Vere and Wong (2002, p.2) showed that the 30 percent increase in female labour force participation from 1979 to 1998 was a significant determinant of Taiwan’s economic development. Tansel (2002, p.4) pointed out that “labour force participation of women will improve their relative economic position. It will also increase overall economic efficiency and improve development potential of the country.” In the case of Turkey, he also argued that there is a strong positive correlation between female labour force participation, economic growth and female education. In addition, in terms of the effect of education on women, Todaro and Smith (2009, p.377) pointed out that increasing the education of females not only increases their productivity on the farm and in the factory but also results in greater labour force

participation, later marriage, lower fertility and greatly improved child health and nutrition.

This book discusses the role of West Papuan women in the economic development in West Papua. This is important for several reasons. Firstly, in West Papua socio-economy and cultural background exert a crucial influence on women's life cycle. Secondly, as described in many studies, the increasing number of women in paid work indicates an increase in economic development. Thirdly, in some, while there is increased development in West Papua, in fact, there is little impact on women.

In the context of Indonesia, the female labour force participation rate declined from 49.5 percent in 1995 to 46.7 percent in 2005, while the male labour force participation rate was virtually static, rising from 82.7 percent to only 83.5 percent in the same period (Central Bureau of Statistics BPS 2009, p.3). On the other hand, in the case of West Papua, the female labour force participation rate appears to have declined slightly. West Papuan estimated data suggest that the female participation in the labour force decreased from 59 percent in 1995 to 58 percent in 2000, while the male labour force participation rate increased by 3 points from 58 percent in 1995 to 61 percent in 2000 (BP3D and BPS 2002).

According to Borjas (2005), the increase in the female labour force participation rate was more pronounced in developed countries than in less developed countries (LDCs). This increase has usually been attributed to higher wages and technological developments within the domestic sphere. He also said that the decline of time spent on domestic work by women is due to women seeking work outside their home, such as in the formal sector or paid work. Borjas pointed out, however, that differences do exist in the labour force participation of females between countries and attributed such differences to different cultural values and institutional frameworks which impact on women's decisions and ability to work.

There are a number of studies investigating female labour force participation in developing countries. A recent study of the female labour force participation rate in Latin America by Abramo and Valenzuela (2005) investigated the progress of the female labour force participation in urban areas in Latin America, focusing on a comparison between males and females of job quality, unemployment, remuneration and social protection. In Chile, Contreras, Puentes, and Bravo (2005) explored the evolution of female labour participation related to age, years and effects of cohort. Lee and Cho (2005) compared female labour force participation during the economic crises in Argentina and the Republic of Korea. Arku

and Arku (2009) examined the use of the time allocation by women who participate in micro-finance in Ghana.

In the LDCs however, there are fewer studies investigating FLFP and economic development. For example, Junsay and Heaton (1989) compared working females in Thailand, Egypt and Columbia. Studies by Juhn and Ureta (2003) investigated the employment of married women and economic development in Latin American. A more recent study by Lincover (2005) explored the interaction between growth, and female labour force participation using a longitudinal analysis. Robinson (2005) investigated female labour force participation in the Middle East and North Africa.

In the context of Indonesia, a limited number of studies of urban and rural areas investigated female labour force participation. For instance, Widarti (1992) investigated female labour force participation in Jakarta. Ruminta (1995) studied demographic and socioeconomic factors that affected female labour force participation in several major cities in Indonesia. In eastern Indonesia, Rumbewas (1998) investigated human resources development by analysing inter-provincial differentials in education, health and female labour force participation. The previous studies of female labour force participation in Indonesia were mainly focussed on the work pattern of married females in employment. In the context of West Papua, De Quelyou and Lamba (2004) investigated indigenous female labour force participation in Kota Jayapura, limited, however, to an investigation of indigenous women participating in informal sectors in the Sentani district.

Several of the studies listed above demonstrated that there is strong relationship between FLFP and economic development both in developed and developing countries. However, the relationship in West Papua has barely been studied. Therefore, this research is important because it makes an in-depth analysis of the relationship between female labour force participation and economic development focussing on West Papua, but more specifically on the five regencies of Kota Jayapura, Jayawijaya, Manokwari, Merauke and Kota Sorong. It also provides important new evidence on the ways in which women are engaged in paid work and how this varies with their ethnicity, education, region, age and family status

This book is concerned with West Papua for several reasons. Firstly, the female labour force participation in West Papua varies between urban and rural areas. Female labour force participation in urban areas is dominated by nonindigenous women, particularly from Java and Sulawesi, in the modern sectors. In rural areas, the vast majority of indigenous female workers are in the subsistence agriculture sector. Secondly, the

statistical evidence shows that the female labour force participation rate in West Papua has declined slightly over the last two decades and so it may be argued that the pattern of female labour force participation in West Papua is different from other developing countries. Thirdly, West Papua has adopted decentralisation under the Special Autonomy Law in 2001. This law gives more opportunity to females to be involved in all sectors of the economy in West Papua.

1.2 Research Aims and Objectives of the Study

As mentioned in the previous section, the main purpose of this study is to analyse the relationship between female labour force participation and economic development in West Papua and draw conclusions that may be useful to policy-makers. The nature of the socio-economy and demography of female labour in the regencies of Kota Jayapura, Jayawijaya, Manokwari, Merauke and Kota Sorong will also be explored. An investigation of this kind must, of necessity, be complex, not least because economic development is not to be measured merely as the real GDP per capita, one of the unavoidable limitations of this study. Poor official data about the labour market in West Papua, such as the absence of classification into indigenous and nonindigenous women, added to our difficulties.

In order to achieve the main purpose, the study has a number of specific objectives. The first is to analyse the relationship between female labour force participation and economic development in West Papua. The second is to investigate the factors that determine female entry into the labour market in West Papua. The third is to identify the employment pattern of indigenous and nonindigenous women and the effect on income of women's socio-economic situations in the five selected West Papuan regencies. The fourth is to examine the time allocation of females in labour and non-labour market activities in these regencies, and the impact of Special Autonomy policy on indigenous and nonindigenous women.

In this analysis the author prefers to use "indigenous people" (*orang penduduk asli*) and "nonindigenous people" (*bukan penduduk asli*) rather than "non migrant" and "migrant". The definitions of indigenous and nonindigenous people are as follows: Indigenous people refer to people whose father was ethnic Papuan even if the mother is non-Papuan. Even if the woman was born outside West Papua, with her father Papuan she is classified as Papuan. A non indigenous person refers to people from all other ethnic backgrounds.

1.3 Location of Research Sites

West Papua is situated in eastern Indonesia, bounded on the eastern border by Papua New Guinea, on the north by the Pacific Ocean, on the west by the Arafura Sea and on the south by Australia. The area of West Papua is 421,981 km², lying between 130° – 141° East Longitude and 2°25' South Longitude and – 9° North Longitude. Merauke is the largest regency with an area of 119,749 km², while the city of Kota Jayapura is the smallest with 940 km².

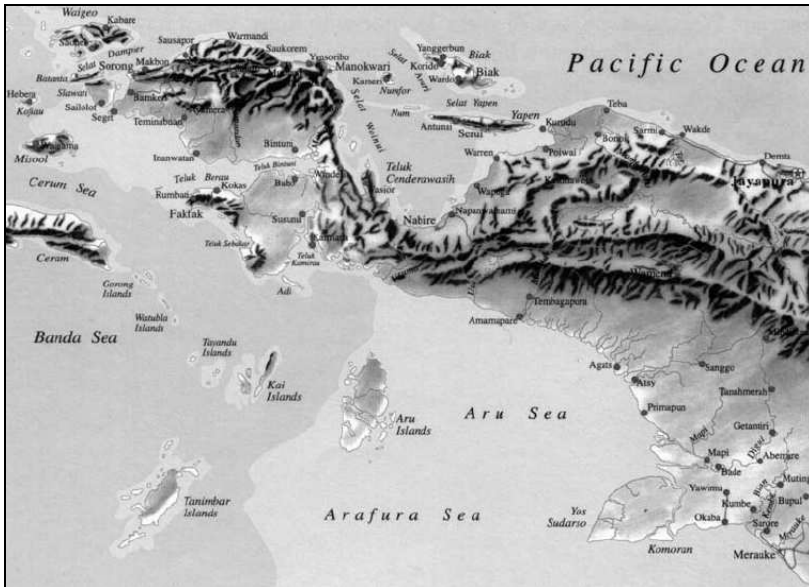
Currently, the province of West Papua consists of 33 regencies and the 2 municipalities of Kota Jayapura and Kota Sorong. The Intercensal Census 2005 reported that the West Papuan population reached 2.5 million people, of which 30 percent was urban and 70 percent rural. (BPS Indonesia 2006).

The province's name has been changed many times. During Dutch colonial times it was called Netherlands New Guinea. When the Indonesian government assumed control it was renamed Irian Jaya (Garnaut and Manning 1974). When Irian Jaya was decentralised in 2001, its name was changed again to Papua. Recently West Papua was divided into two provinces, namely Papua and West Irian Jaya. The capital city of Papua is Kota Jayapura while that of West Irian Jaya is Manokwari.

This study prefers to use the term "West Papua" rather than "Papua" because before the province was split into two provinces (Papua and Papua Barat), it was known as West Papua. The analysis in this thesis covered both the provinces of Papua and Papua Barat with the samples also taken from both provinces: Kota Jayapura, Merauke and Jayawijaya (representing Papua province); and Manokwari and Kota Sorong (representing Papua Barat province).

In general, the West Papuan topography consists of three areas, namely Bird Head, the Central Highlands including the North, and the Southern Jayawijaya Highlands. According to Koentjoroningrat (1994), the Bird Head area includes Manokwari, Fak Fak, Teminabuan, Stenkool, Kaimana, Kokas, Ayamaru and Wendesi. The Central Highlands and the North areas are Jayawijaya, Mambramo, Cenderawasih Bay and Kota Jayapura. South of the Jayawijaya mountains is Merauke.

Figure 1.1 The Map of West Papua



Adapted from *Papua in Figures 2004/2005*, BPS Papua 2006, p.viii

1.4 Organisation of the Book

The book comprises eight chapters. Chapter One is the introductory chapter and, covers the background of the study, the research questions, the aims and the approach of this study, and the significance of the thesis as well as its organisation.

Chapter Two provides a review of the literature on the theories of labour force participation and economic development. Chapter Three describes the research methodology. Chapter Four describes the economic and social developments in West Papua. The next three chapters comprise the core of the research based on the research questions. Chapter Five examines the special aspects of women and development in West Papua, and also explores the factors that determine female labour force participation at the provincial level and at the level of the five selected regencies in West Papua, Chapter Six examines the employment patterns of indigenous and non-indigenous female labour in the selected regencies, and makes a multivariate analysis of the effect of the socio-economic

circumstances of women on their income. Chapter Seven investigates the time allocation of employed women and compares female employment before and after Special Autonomy. Finally, Chapter Eight draws conclusions from the major findings in the thesis and their policy implications.

CHAPTER TWO

FEMALE LABOUR FORCE PARTICIPATION AND ECONOMIC DEVELOPMENT: THEORY AND LITERATURE REVIEW

2.1 Introduction

This chapter Presents the theories and a critical review of the literature related to female labour supply and economic development. Firstly, the concepts of labour force participation and economic development are reviewed. Attention is given more specially to some theories, such as the basic theory of labour supply, alternative methods of measuring labour force participation rates in Less Developed Countries (LDCs), the relationship between female labour force participation and economic development, and the absolute advantage and comparative advantage of family. The empirical analysis of female labour force participation in LDCs and finally, empirical research on female labour in the context of Indonesia and West Papua will be presented.

2.2 The Concept of Labour Force Participation and Its Approach in Developing Countries

McConnell, Brue and Campbell (2009, p. 59) argue that “the labour force participation rate is determined by comparing the actual labour force with the potential labour force or what is sometimes called the “age-eligible population”. In the US the actual labour force consists of people who are employed and those who are unemployed but who are actively looking for a job, while the potential labour force can be categorised as the “age-eligible population” which excludes young people under 16 years of age and people who are institutionalised, such as in penal or mental institutions or nursing homes or over age 64. The concept of labour force in Indonesia

refers to the International Labour Organisation¹ definition which classified the working age population as persons of 15 years old and over and the labour force as persons of 15 years old and over who, in the previous week, were working, were temporarily absent from work but have a job, and those who did not have work and were looking for work (BPS Indonesia, 2006)

The female labour force participation rate is defined as the proportion of the female population of working age who are employed (included self-employed) or are seeking work. However, the concept seems to be particularly difficult to apply to developing countries because of the problem in defining the concepts of work and non-work in a subsistence economy. It is quite hard for western analysts to make the distinction between work and non-work in developing countries because both activities (work and non-work) are combined. For instance, in the case of West Papua, many married women may work in the field growing vegetables as well as taking care of the children. The usage of terms such as cash and non-cash production in a subsistence economy seems to be ambiguous. In this society, a family may produce goods for its own consumption as well as to share with other relatives or to sell in the traditional market.

The concept of labour force has been criticised in recent years, particularly in relation to developing countries, in terms of its inaccuracy and incompleteness in measuring female labour (Anker et al. 1987). In fact, the concept of labour force based on official statistics classifies females particularly in rural areas as “the economically inactive” labour force. The inaccuracy of the concept of female participation in the labour force is due to a number of factors: the quality or biases of the interviewer; the biases of male respondents or the lack of knowledge on the part of proxy respondents; poorly constructed questionnaires; and, finally, to a misunderstanding of the notion of labour force participation rate (Anker et al 1987). Anker, Khan and Gupta (1988) also pointed out that the international definition of labour force seems to be unclear if it is applied to the less developed countries. The United Nations states in its national account that the labour force consists of persons of either sex who furnish the supply of labour for the production of economic goods and services (Anker, Khan and Gupta 1988). The United Nations’ definition of labour force is that all production of goods and services can be classified into “economic” (labour force) activity while activities outside the production

¹ Survey of economically active population, employment, unemployment and underemployment. An ILO Manual on Concepts and Methods.

of “goods and services” are classified as non-economic (non-labour force) activities. All market-oriented activities related to salary or wage employment are considered as labour force activities. Thus, according to the UN definition above, all the goods and services production of primary products, whether they will be sold into the market or for barter and self-consumption such as in subsistence-agriculture, are included in the concept of labour force activities. With regard to the measurement of female labour force participation, Durand (1975) classified female labour force participation according to industry sectors or occupation, expressed by the number of women employed in a given sector as a percentage of the total of females of working age.

This study will use the UN definition of female labour force participation which is more suitable for analysing the nature of female labour in developing countries. Thus, the female labour force participation rate will be measured by the industry sector namely the agriculture, manufacturing and services sectors. To do this, it is helpful to classify the female labour force into three groups: young females (15-24 years old); prime age females (25-54 years old); and older females (55- 59 years old). The female labour force participation rate for each industry and every sector will be examined by region (urban and rural areas), education, household size, marital status, migrant status, presence of children, as well as by ethnic origin (indigenous and non-indigenous).

After exploring the nature of labour force participation, let us discuss the meaning of female labour force participation rate based on several definitions mentioned above. Basically, the female labour force participation rate is the ratio of two numbers: between the females who are classified as economically active in the labour force and the females inactive in the labour force. Economically active females include those who are unemployed and those who are unemployed but looking for work. This also includes women who already in the labour force plus the inactive population. The inactive population excludes unemployed persons such as children, inmates of institution, the disabled and the elderly. Therefore, the appropriate definition of female labour force participation is the percentage of the female population that has worked in the reference period or is willing to work. For example, suppose that the West Papuan female labour force participation rate is 50 percent. This means half the female population in West Papua works and the other (50 percent) is not working. However, it does not necessarily mean that half of the individuals are always in the labour force and the rest is never in the labour force. It probably means that same individual is sometimes in labour force and sometimes out of the labour force (Mincer 1962).

It seems that even though it is easy to define labour force, the estimation of the labour force participation rate becomes controversial, particularly in LDCs such as in West Papua. Obviously, economists often associate the labour force with paid work. This is because the way labour force is defined, namely: 'labour force is that part of the population which is engaged in the production of economic goods and services'. However, there is an important element that economists have forgotten to consider regarding the nature of the labour market in West Papua, namely unpaid family work or domestic activities, which they exclude from the concept of labour force. In fact, the role of the unpaid family workers who predominantly work in the informal sector and in the traditional subsistence agriculture sector, in which the women's role is significant, is crucial for the West Papuan economy.

Among economists, there is still debate as to whether or not the concept of labour force participation is suitable as a measure of performance of labour in LDCs. Myrdal (1970) criticized the use of labour force participation as a concept to measure the degree of workers in the labour market in LDCs. According to Myrdal the notion of labour force participation is only applicable in developed countries, not in LDCs, because it fails to take into account variations in labour efficiency. For example, in developed countries the labour force participation can be determined by using standardised conditions such as age. In LDCs, however, large age variations exist in the labour force. In Indonesia it is common for children under 15 years old (child labour) to participate in the labour market. Many children live in poor families. They have to earn in order to help to support their families, so many of them drop out of school. Furthermore, while in developed countries the demand and supply in the labour market work properly, the labour market in developing countries is very imperfect. This means that the worker fully depends on the employer and labour does not have the power to bargain their wages. They will accept the employer's wage offer, even if the wage is below the legal minimum. This still obtains in West Papua where many private sector employers pay low wages (below Rp.750,000 or about AUD101 per month). This demonstrates that Western assumptions about intensity or efficiency of work are not applicable in LDCs. In order to overcome the problem, Myrdal proposed alternative measurements on the utilisation of labour in developing countries. In particular, he suggested a relationship between the length of work, the participation rate and labour efficiency. The length of work can be measured by dividing total hours worked by members of the work force (Myrdal 1970).

Hauser also criticized the labour force participation approach. His approach to labour force participation referred to Myrdal's alternative labour force participation (Sheehan 1975), arguing that the Western concept of labour force participation is inappropriate for developing countries. He classified the labour force, (those over ten years old) into three categories. The first category is labour working for wages or profits, the second is labour working inside the home, and the third category is unpaid labour working outside the home. Labour working at home involves payment in kind, unpaid, nomadic, hunters, fisherman, subsistence farmers etc. while labour working outside the home without any payment consists of unpaid servants, sharecroppers, apprentices and others. Hauser classified the whole population into labour force and non-labour force but his alternative method of classification of labour force participation seems to be difficult to apply to developing countries because of its complexity. It would require the adjustment of census data in order to obtain the necessary data. However, there are advantages in using Hauser's method in that the model provides a holistic approach when dealing with labour force participation in developing countries.

2.3 Factors Affecting Female Labour Participation in LDCs

In general, there are several factors that determine female participation in the labour market which can be analysed by examining the supply and demand of labour. On the supply side, some factors such as, marital status, the presence of children, age, education, the composition of the family and the husband's income affect female labour. On the demand side, labour can be determined by government policy and wages (Borjas 2005).

Many females in LDCs might be not actively looking for work outside home, the plausible reason being that they are married and have children and therefore are more likely to spend time at home rather than in the labour market. This factor contributes to the low level of female participation. Fertility rate is another factor influencing married women's participation in the labour market. For instance, in developed countries, it seems that an increase of the fertility rate reduces married women's opportunities to enter to labour market, discouraging them from participating in the labour market. In the case of LDCs, the relationship between the fertility rate and married women's participation can be positive. For example, in Indonesia, many poor families with a large number of children may pressure the married women to look for work to support their family since their husband's income is not enough to meet