



**UNIVERSITI PUTRA MALAYSIA**

**FACTORS AFFECTING VARIATION IN LEVELS OF PARTICIPATION  
IN WATERSHED MANAGEMENT PROGRAMS IN IRAN**

**REZA BAGHERIAN  
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**FACTORS AFFECTING VARIATION IN LEVELS OF PARTICIPATION  
IN WATERSHED MANAGEMENT PROGRAMS IN IRAN**

**By**

**REZA BAGHERIAN**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in  
Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

**December 2009**



## **DEDICATION**

*Dedicated to my beloved family, my wife and my children;*

*Sina, Soroush and Melika for their support and patience*

*During my study in Malaysia*

Abstract of thesis presented to the Senate of the Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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**REZA BAGHERIAN**

**December 2009**

**Chairman: Associate Professor Dr. Bahaman Abu Samah, PhD**

**Institute: Institute of Social Science Studies**

This study was designed to determine the factors that affect variation of level of participation in Watershed Management Programs (WMP) in Iran. In this regard, a conceptual model was developed to: 1) identify characteristics that lead to the participation in WMP, and 2) determine the factors that affect variation of level of participation in WMP. In this study the relationship of five factors with level of participation were examined to provide the role of each factor in explaining the variation of level of participation in WMP. These factors were; 1) socio demographic characteristics of the respondents, 2) respondents knowledge of WMP, 3) respondents attitude toward WMP, 4) respondents expectations of WMP, and 5) respondents satisfaction of prior programs as independent variables and the level of participation as dependent variable.

In order to achieve to this goal, a cross sectional survey was design and utilized. The data were gathered through personal interview by using a set of questionnaire. The



data were collected from two hundred respondents which were randomly selected from three villages in Hable-Rud basin in Iran. Descriptive analysis, factor analysis, Pearson product moment correlation, one way analysis of variance and multiple regressions were employed for analyzing data in this study.

The findings of study showed that the majority of the respondents were male (93 %) and married (93.5 %). The data showed that the average household size in the study area was 5.2 members in a household. The study showed that educational level in the study area was relatively high (18 % diploma and bachelor) and the mean of the respondent's age was 46 years. The data also showed that 55% of the respondent's main occupation was farming and the average of their total monthly income was 3.5 Million Rial per month. The findings of study also showed that 58% of the respondents were member at least in one local group and 47.5 % of the respondents were joined to the program with their self interest.

The results of this study showed that the level of the respondent's knowledge of WMP was low; however, they indicated positive attitude toward WMP. This study also showed that the respondent's expectations of WMP were moderate to high and their satisfaction of prior programs was moderate to low. The study also showed that the level of participation in WMP was moderate to low; however, people preferred more involvement in social rather than economical and environmental activities.

Study also found significant difference between, occupational groups, range of local groups once belong to it, source of motivation to join and level of participation. Pearson's correlation analysis showed that six variables: 1) satisfaction of prior programs, 2) attitude toward WMP, 3) knowledge of WMP, 4) alternative income, 5) total income, and 6) expectations of WMP have linear relationship with the level of participation in WMP. Regression analysis discovered that these variables explained 45 % of the variation in the level of participation.

The result of this study also provided some theoretical and practical implication and recommendations on the participation in WMP. This study recommends that social exchange and reason action theory are appropriate to explain the variation of level of participation. However, participation is a complex issue and future researches might benefit from pluralistic approach and perspectives to explain the participation. In this study also some implication and recommendations for policy and practice were suggested to increase the level of participation in WMP. This study also highlighted the need for future research on participation in watershed management programs by considering other factors in other populations in Iran.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi sebahagian keperluan untuk ijazah Doktor Falsafah

**FAKTOR-FAKTOR YANG MEMPENGARUHI PERBEZAAN TAHAP  
PENGLIBATAN DALAM PROGRAM PENGURUSAN  
TADAHAN AIR DI IRAN**

Oleh

**REZA BAGHERIAN**

**Disember 2009**

**Pengerusi: Profesor Madya Dr. Bahaman Abu Samah, PhD**

**Institut: Institut Pengajian Sains Sosial**

Tahap penyertaan berkesan adalah penentu utama kepada kejayaan atau kegagalan dalam sesebuah program pembangunan, tetapi faktor pemangkin dalam menghasilkan penyertaan yang berjaya masih kekal sebagai satu rahsia, terutama di Iran di mana penyertaan merupakan satu cabaran untuk sesebuah negara yang mengamalkan tradisi lama di dalam pengurusan atas-bawah.

Kajian ini telah direka bentuk untuk analisa penyertaan masyarakat tempatan di dalam Program Pengurusan Kawasan Tadahan atau Watershed Management Programs (WMP) di Iran dengan menggunakan rangka kerja teori pertukaran sosial. Berdasarkan teori pertukaran sosial dan sorotan literatur, terdapat beberapa faktor telah diambil sebagai pemboleh ubah tak bersandar untuk menentukan faktor-faktor yang mempengaruhi masyarakat yang menyertai WMP. Bagi mencapai matlamat ini, dua ratus responden dipilih secara rawak daripada tiga WMP dari lembangan di



Hable-Rud, Iran. Pada Ogos dan September 2008, data telah dikumpul melalui temu bual peribadi dengan menggunakan satu soal selidik. Terdapat beberapa teknik digunakan bagi menganalisis data kajian ini seperti analisis deskriptif, analisis faktor, korelasi Pearson, analisis varian dan regresi pelbagai. Penemuan kajian ini menunjukkan terdapat lapan (6) pemboleh ubah yakni, kepuasan masyarakat terhadap program tertentu, pendapatan alternatif, jumlah pendapatan, keahlian berkumpulan, sikap terhadap WMP, pengetahuan mengenai WMP, jangkaan terhadap WMP dan sumber penyertaan WMP mempunyai hubungan ketara dengan tahap penyertaan masyarakat di dalam WMP.

Analisis regresi pelbagai menemui enam pemboleh ubah bebas yang menjangkakan tahap penyertaan terbaik serta menghuraikan kira-kira 45 % variasi di dalam tahap penyertaan tersebut iaitu kepuasan masyarakat terhadap program tertentu, pendapatan alternatif, jumlah pendapatan, keahlian berkumpulan, sikap terhadap WMP, pengetahuan mengenai WMP dan jangkaan terhadap WMP. Kajian ini mengesyorkan teori pertukaran sosial adalah satu rangka kerja yang sesuai bagi menjelaskan tahap penyertaan ini.

Tetapi penyertaan merupakan satu isu yang rumit dan para pengkaji di masa hadapan mungkin memperoleh manfaat dari pendekatan pelbagai dan perspektif bagi menjelaskan tahap penyertaan ini. Beberapa cadangan juga disaran bagi meningkatkan tahap penyertaan dalam WMP. Kajian ini turut menekankan keperluan



untuk penyelidikan masa hadapan bagi penyertaan dalam WMP dengan menimbang faktor-faktor lain bagi populasi lain.

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families for their support during my study in Malaysia. Without their love and support, this study would not have been possible. Thank you for all your love.



I certify that a Thesis Examination Committee has met on 10<sup>th</sup> December 2009 to conduct the final examination of Reza Bagherian on his thesis entitled “Factors Explaining Variation of levels of Participation in Watershed Management Programs in Iran” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

Members of the Examination Committee are as follows:

**Nobaya Ahmad, PhD**

Lecturer  
Faculty of Human Ecology  
Universiti Putra Malaysia  
(Chairman)

**Jegak Uli, PhD**

Associate Professor  
Faculty of Educational studies  
Universiti Putra Malaysia  
(Internal examiner)

**Jamilah Othman, PhD**

Lecturer  
Institute for Social Science Studies  
Universiti Putra Malaysia  
(Internal examiner)

**Ismail Baba, PhD**

Professor  
University Science Malaysia  
(External examiner)

---

**BUJANG KIM HUAT, PhD**

Professor and Deputy Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date:



This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of supervisory committee were as follow:

**Bahaman Abu Samah, PhD**

Associate Professor  
Institute for Social Science Studies  
Universiti Putra Malaysia  
(Chairman)

**Asnarulkhadi Abu Samah, PhD**

Associate Professor  
Faculty of Human Ecology  
Universiti Putra Malaysia  
(Member)

**Shamsuddin Ahmad, PhD**

Lecturer  
Faculty of Educational Studies  
Universiti Putra Malaysia  
(Member)

---

**HASANAH MOHD GHAZALI, PhD**

Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date: 11 February 2010



## **DECLARATION**

I declare that this thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently, submitted for any other degree at University Putra Malaysia or at any other institution.

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**REZA BAGHERIAN**

DATE: 5/ 1/ 2010



## TABLE OF CONTENTS

	<b>Page</b>
<b>DEDICATION</b>	ii
<b>ABSTRACT</b>	iii
<b>ABSTRAK</b>	vi
<b>ACKNOWLEDGEMENTS</b>	ix
<b>APPROVAL</b>	xii
<b>DECLARATION</b>	xiv
<b>LIST OF TABLES</b>	xviii
<b>LIST OF FIGURES</b>	xx
<b>LIST OF ABBREVIATIONS</b>	xxi
<b>CHAPTER</b>	
<b>1 INTRODUCTION</b>	<b>1</b>
Background of study	1
Problem statement	5
Research questions	7
Objectives of study	8
Significance of study	8
Research assumptions	10
Limitations of study	10
Definition of terms	11
Chapter summary	12
<b>2 LITRATURE REVIEW</b>	<b>13</b>
Natural Resources in Iran	13
Watershed Management Program	17
Participation	22
Concept of participation	24
Benefits of participation	25
Level of participation	27
Methods of participation	31
Evaluating of participation	32
Theoretical framework of study	34
Factors affecting participation	43
Socio demographic characteristics	43
Knowledge and awareness	46
Attitude toward program	47
Expectations of program	49
Satisfaction of prior programs	50
Chapter summary	51
<b>3 METHODOLOGY</b>	<b>53</b>
Research design	53
Research Framework	54





Research Hypotheses	58
Instruments, scales and measurements	59
Socio demographic characteristics	60
Knowledge of WMP	61
Attitude toward WMP	62
Expectations of WMP	63
Satisfaction of prior programs	64
Participation in WMP	65
Validity and reliability of Instruments	68
Population of study	69
Sampling method	70
Data collection procedure	71
Data analysis processes	72
Exploratory Data Analysis	73
Factor Analysis	75
Descriptive Analysis	85
Analysis of Variance	85
Correlation Analysis	86
Multiple Regression Analysis	87
Chapter summary	87
<b>4 RESULTS AND DISCUSSION</b>	<b>88</b>
Socio demographic characteristics of respondents	88
Level of Knowledge of WMP	95
General knowledge	95
Knowledge of objectives	95
Knowledge of functions	96
Knowledge of components	96
Overall knowledge of WMP	97
Level of attitude toward WMP	98
Level of expectations of WMP	101
Reciprocation of WMP	101
Justice distributive of WMP	107
Overall expectations of WMP	112
Level of Satisfaction of prior programs	113
Level of Participation in WMP	115
Social participation	116
Economical participation	120
Environmental participation	123
Overall participation in WMP	126
Comparison of participation by selected socio demographic variables	127
Comparison of participation by educational groups	127
Comparison of participation by main occupation	128
Comparison of participation by alternative occupation	128
Comparison of participation by number of group membership	129
Comparison of participation by source of motivation	129
Relationship between predictor variables and participation	132
Socio demographic and participation	132
Knowledge of WMP and participation	133
Attitude toward WMP and participation	135

Expectation of WMP and participation	135
Satisfaction of prior programs and participation	137
Regression analysis for explaining level of participation	138
Examining the data for regression analysis	138
Regression model for explaining participation	144
Chapter summary	146
<b>5 SUMMARY, CONCLUSION AND RECOMMENDATIONS</b>	<b>147</b>
Summary of findings	148
Personal profiles of respondents	148
Differences of participation among respondents	151
Relationship between predictor variables and participation	152
Conclusion	152
Implications	155
Theoretical implication	155
Practical implication	155
Policy implication	156
Recommendations	157
Recommendation for theory	157
Recommendation for policy	157
Recommendation for future studies	159
<b>REFERENCES</b>	<b>160</b>
<b>APPENDICES</b>	<b>169</b>
<b>BIODATA OF STUDENT</b>	<b>185</b>
<b>LIST OF PUBLICATIONS</b>	<b>186</b>



## LIST OF TABLES

<b>Table</b>	<b>Page</b>
1. Natural resources area in Iran	14
2. Changes in rangelands condition from 1974 to 2005 in Iran	16
3. Socio demographic characteristics and their type of score	60
4. Reliability coefficients of research instruments	69
5. Population of sampling villages in study area	70
6. Descriptive tables of independent variables and its subscales	74
7. Descriptive table of participation variables and its subscales	75
8. KMO and Bartlett's Test of sample size for participation	77
9. Varimax rotation factor pattern of people participation in WMP	80
10. KMO and Bartlett's Test of sample size for expectation	81
11. Varimax rotation factor pattern of people expectation of WMP	84
12. Guilford rule of thumb for size and strength of the relationship	86
13. Socio demographic characteristics of the respondents	93
14. Level of respondent's knowledge of WMP	97
15. Level of respondents' attitude toward WMP	100
16. Level of environmental benefits of WMP	104
17. Level of socio economic benefits of WMP	106
18. Level of overall benefits of WMP	107
19. Level of equitability of WMP	109
20. Level of fairness of WMP	111
21. Level of justice distributive of WMP	112
22. Level of respondents overall expectations of WMP	113



23. Level of respondents' satisfaction of prior programs	115
24. Level of respondents' social participation in WMP	120
25. Level of respondents' economical participation in WMP	123
26. Level of respondents' environmental participation in WMP	126
27. Level of respondents' overall participation in WMP	127
28. Comparison of participation by individual characteristics	131
29. Correlation between socio demographic variables and participation	133
30. Correlations between knowledge variables and participation	134
31. Correlations between attitude toward WMP and participation	135
32. Correlations between expectations of WMP and participation	136
33. Correlations between satisfaction and participation	137
34. Correlation matrix of independent variables	142
35. Summary of the collinearity statistics of independent variables	144
36. Multiple regression model for explaining participation	145



## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
1. Climate Map of Iran	15
2. A model of organization for WMP in Hable-Rud basin	22
3. Ladder of citizen participation	28
4. Research framework	57
5. Model of people participation in WMP	67
6. Scree plot of factors for participation variable	77
7. Scree plot of factors for expectation variables	81
8. Normal P.P. plot of regression standardized residual	139
9. Scatter plot of regression standardized residual values	140

## LIST OF ABRIVIATIONS

AREO	Agricultural Research and Education Organization
FAO	Food and Agricultural Organization
FRWMO	Forest and Rangeland Watershed Management Organization
IPSAS	Institute for Social Science Studies of UPM
SCI	Statistics Center of Iran
SCWMRI	Soil Conservation and Watershed Management Research Institute
SMLWR	Sustainable Management of Land and Water Resources
UNDP	United Nation Development Program
UPM	University Putra Malaysia
WMP	Watershed Management Program



## **CHAPTER 1**

### **INTRODUCTION**

This chapter presents the background of the study, problem statement, research questions, objectives of study, significance of study, assumptions of study, limitation of study and finally end by definition of terms which are used in this study.

#### **Background of study**

The term participation has gained a lot of popularity during the last years, particularly in reference to sustainable agriculture and rural development projects. Development agencies introduced concepts of participation in projects and programmes in the late 1970s and early 1980s after that the lack of beneficiaries' participation was identified as a reason for failure of many development efforts. Initially, emphasize was on popular participation. In the past years the promotion of participation in development has become more widespread and the focus has widened to include other stakeholders as well (Karl, 2000).

The public participation today is demanding a greater role in decision making processes about the management of natural resource. The new agreement about the necessity of public participation began to emerge with the 1987 World Commission on Environment and Development (WCED), which recognized the alarming rate at



which resources were depleting due to economic development. This was followed by the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil in June 1992 with the adoption of Agenda 21, which states in chapter 23, section III that” one of the fundamental prerequisites for achievement of sustainable development is broad public participation in decision-making” (Gwena M. B. 2007).

There are also several studies which highlighted the importance of participation (Platt, L. 2006; Irvin and Stansbury, 2004; Ayee, 2001). In point view of Platt (2006), lack of participation in the society is one aspect of poverty. Irvin and Stansbury (2004) believe that citizen participation will produce more public preference decision making. According to Ayee (2001) participation is linked to poverty and social exclusion. This is because participation supports efforts at self-help, which are meant to eradicate poverty and encourages the growth of democratic institutions, which creates political space for disadvantaged groups, who were originally excluded from the decision-making process.

From the point view of Wainwright & Wehrmeyer (1998), participation by citizens and users presents an important concept and strategy for planners, designers, community organizers, and government officials. According to (Searle, 1988; Nurick, 1982; Hunter, 1982) participation in decision making reflects the opportunities for influence and as a result, need satisfaction. In this regard and with reference to the above mentioned, the degree of popular participation in development programs is a major determinant of success or failure, but many opportunities for participation are met with little enthusiasm or cooperation by



citizens (Wandersman, and Gary. 1980) and the policy which makes participation efforts successful still remains a mystery. Especially in Iran participation is quite a challenge for a country with long tradition of top-down management. As Hamd Haidari and Wright (2001) have argued, during the *Shah* regime in Iran, and before the Islamic Revolution of Iran in 1979, there was a hierarchical approach to decision-making in all administrative sectors. Most projects on that time had a top-down character in their conceptualization, design and implementation. In that time, central government experts usually prepared five year plans under which annual programs were executed. Local councils generally were not effective in influencing decision-making in design and implementation of development programs.

After the Islamic Revolution of Iran in 1979, participation was guaranteed under the constitution of the Islamic Republic of Iran, which clearly says, the participation of the whole people in the determination of its political, economic, social, and cultural fate is one of the aims of the state (Article 3, point 8, quoted in Schirazi, 1993). To achieve this goal, after 1979 the government of Iran encouraged the popular participation in various programs planning (Hamd Haidari and Wright, 2001). In this regard Ministry of Jihad as a new established organization after Islamic revolution in 1979 which had great role in rural development encourages the rural people to participate in planning and implementation of development programs.

During the last years land and water resources in Iran have suffered severe degradation. Watershed management program (WMP) is one of the current approaches to sustainable management of land and water resources in Iran. It was started at the time of third Iranian 5<sup>th</sup> socio economic and cultural development plan;