



UNIVERSITI PUTRA MALAYSIA

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

**REZA BAGHERIAN
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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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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

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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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I certify that a Thesis Examination Committee has met on 10th 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.

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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.

REZA BAGHERIAN

DATE: 5/ 1/ 2010



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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 5th socio economic and cultural development plan;