

**FACTORS INFLUENCING VILLAGERS' SATISFACTION WITH
IMPLEMENTATION OF RURAL MASTER PLANS¹: (A CASE STUDY IN
SOUTHERN LEYLAN DISTRICT, MALEKAN TOWN, EAST AZERBAIJAN, IRAN)**

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ABSTRACT: *Rural Master Plans (RMP) have been implemented in many different Iranian rural areas in recent years. The level of satisfaction with the plans is the focus of many researchers because it can provide important information via an effective feedback process for the managers to be able to supply the best means of implementing these plans. This also reveals weaknesses in their administration and planning constrains. RMPs are being implemented in order to improve basic problems in the country such as disorganization of physical situation and improper quality of rural housing. The aim of the present study was to identify factors influencing Southern Leylan District villagers' satisfaction with implementation of Rural Master Plans. As a descriptive-correlation study, the study contained 3204 rural households of Southern Leylan District. The sample size was 150 rural households selected by Cochran sample size formula using multistage sampling with optimization. A 15-item questionnaire was designed to collect the data, the validity of which was assessed by professionals (faculty members and experts of HFIR² experts) and its reliability was admitted by Cronbach's alpha coefficient ($\alpha=0.88$). Pearson's correlation and mean comparison tests (t- & F- tests) were employed to analyze the data. Results showed that there was a positive relationship between availability of communicational and traffic services (correlation = 0.67), and satisfaction with Rural Master Plans; there is a significant relationship between satisfaction with RMP and standard constructs (correlation =0.68), quality of paths (correlation =0.90), housing and construction (correlation =0.75) as well as healthcare improvement (correlation =0.89).*

KEYWORDS: Satisfaction level; Rural Master Plans; Southern Leylan District; Malekan Town

INTRODUCTION

Villages are of special importance throughout any national development programs. Historically, governments have gone through efforts aiming at reformation and improvement in human residential areas by employing good policies in constructional planning. Among the most important issues villages face are physical disorganization and lack of quality of rural housing.; some villages are ancient and this causes coexistence between old and modern constructions.

Migration is a great concern which is not basically controllable unless the variation between urban and rural residential areas, which is a result of imbalanced of development, is minimized. In the recent two decades there has been a remarkable effort as to development and engineering

¹ Also called "Guide Plans".

² Hosing Foundation of Islamic Revolution

in the country to partially minimize the inequities between urban and rural points (Azim, Jamshidian Mojaver, 2005). In rural development literature, the main goals are development, better quality of life, and villagers' well-fare and especially socioeconomic improvements of a specific rural population, the poor. A way to attain his goal is changing physical construction of villages (Smith, 2002).

A way governments have taken to improve villagers' life is rural engineering which involves rural reforms not only in production methods and economical organization of rural communities, but also in infrastructures, sociopolitical affairs as well as relations between the community members (Asayesh, 1997).

Significance of the problem

In 1918, the word "Rurban" (Rural+Urban) was coined (by C. J. Galpin) for the first time which attracted much attention from scientific societies and focused semantically on common features of the city and the country. The issue of sustainable development and shortage of energy have caused greater attention toward rural areas as well as reconstruction of their constructs. With growing costs of living in cities, it is hard for the new generation to make an easy living in today's modern cities. These challenges make near-the-city rural areas more productive. The term Rural City, coined by Will Alsop in 2003, indicates that these thoughts have found their way to the fields of professional vocabulary and literature. As a result, global views on village require devising strategies to cope with these challenges and to join the global movement to rural development.

One of the principle factors for sustainability of communities, especially in the country, is to provide proper physical components and supply a convenient comfortable life based on the conditions of modern life. From 1960s on, growing inequity in life conditions between rural and urban situations made the stream of migrations from the country to the city in Iran (Hesamian et al, 1984). In the following decades, increase in this stream brought some concerns for the respective organizations so that its representation was revealed in the form of Master Plans during the Serving Years after the Islamic Revolution from 1983 on, which in turn led to public convenience services for most rural populations including roadways, piping, power, phone lines, healthcare services, etc.

As an external variable, Master Plans enter rural system and influence physical, physical-economical, social and environmental constructions of villages. Rural Master plans, which are based on revolution in physical construction, are parts of rural development process because basic outlines of these plans are in the form of external or physical changes of villages (Aslani, 2008). Master plans involve providing a platform for a newer life and conducting villages in terms of their social, economic and physical aspects.

Goals of implementation of RMPs are as follows:

1. Providing a platform for development and engineering villages according to their cultural, economic and social conditions.
2. Fair provision of facilities by creating social, productive and well-fare convenience.
3. Providing facilities required for improvement of rural housing and public welfare services.

4. Constructing an orderly communicational web and directing service distribution systems throughout rural districts in a logical way.
5. Providing production facilities, employment, and income increase for villagers to improve economical situation in villages.
6. Directing rural physical situation. (Iranian Bureau of Research and Planning, 1987).

A rural Master Plan must then follow various approaches toward rural development according to the mentioned above goals.

It has been ten years already from the starting point of implementation of the plans in Leylan District; however, villagers' satisfaction with these plans has not been assessed to reveal their weaknesses and strengths. The main concern in the present study is to provide insights into how much these plans have reformed villages and if the plans have led to satisfaction in rural households; and what factors influence satisfaction with Rural Master Plans.

MATERIALS AND METHODS

The preset study is a quantitative- retrospective survey and an applied-decisionist research for it is searching for some results which are applicable in decision making (Bazargan, 2013). For theoretical framework, it is a descriptive correlation research and the data was collected from the population in a survey method. The population consisted of local residents of 9 villages from Southern Leylan District, Malekan Town, East Azerbaijan County, where Master Plans have been implemented, about 3204 individuals. The sampling method was multi stage sampling. At the first stage, three villages were selected according to geographical distribution of the villages with the plans. At the second stage, sample villagers were selected randomly using optimization method.

To obtain the sample size, a pre-test was done in which the questionnaire was completed in personal interviews with 30 villagers. The sample size then was 137. To promote precision and to obtain the desired result, the population was increased to 150 subjects. In order to collect the required data, a 15-item questionnaire was designed, the validity of which was confirmed by experts (faculty members and HFIR experts). Reliability of the questionnaire was admitted using Cronbach's alpha coefficient ($\alpha=0.88$). Pearson's correlation and mean comparison tests (t- & F- tests) were employed to analyze the data which was then put into SPSS software to be processed and analyzed.

RESULTS

Hypothesis 1 test: There is a significant relationship between villagers' personal characteristics (age, farm size, number of children) and their level of satisfaction with implementation of Rural Master Plans.

Among variables related to personal characteristics of villagers, there was a positive relationship between age, and number of children and their satisfaction with the plans at 1% degree of confidence. With an increase in children number there would therefore be an increase in the level of satisfaction. That is, satisfaction level in older people as well as big families is

higher than others which may be the result of the older individuals' experiences of the previous harsh situation of the village in various aspects including hygienic, communication, construction, and infrastructure. We found no significant relationship between farm size and satisfaction level of responders with implementation of the plans.

Table 1: Correlation of personal characteristics and level of satisfaction

| Independent variables | Dependant variables | Pearson's correlation coefficient | Significance level |
|-----------------------|---------------------|-----------------------------------|--------------------|
| Satisfaction level | Age | 0/629** | 0/000 |
| | Number of Children | 0/651** | 0/000 |
| | Farm size | 0/059 | 0/472 |

Hypothesis 2 test: There is a significant difference between villagers' personal characteristics (educational level, social functions, marital status, gender and main job) and their level of satisfaction with implementation of Rural Master Plans.

Mean comparison test, t-test, for independent variables showed that there was a significant difference between marital status and level of satisfaction at 1% degree of confidence in both groups. Since mean of married individuals was higher than single individuals, the married subjects' satisfaction level was higher than that of singles.

For gender variable, t-test showed that in independent groups there was no significant difference between men and women's satisfaction level.

The t-test for main occupation variable and satisfaction level of both groups showed a significant difference at 1% confidence level. Since the mean of farmer subjects was higher than the non-farmers, the farmers had a higher satisfaction level than the non-farmers.

Table2: comparison of satisfaction level of responders with RMP based on their personal characteristics (gender, marital status, occupation)

| Dependant variable | Independent variables | mean | | t-test for Equality of Means | |
|--------------------|-----------------------|-------------|---------|------------------------------|-----------------|
| | | | | T | Sig. (2-tailed) |
| Satisfaction level | gender | male | 54.1560 | -0/816 | 0/416 |
| | | female | 55.5610 | -0/818 | 0/416 |
| | Marital status | single | 47.3778 | -7/041 | 0/000 |
| | | married | 57.6095 | -7/790 | 0/000 |
| | occupation | farmers | 55.6893 | 2/ 249 | 0/026 |
| | | Non-farmers | 52.0213 | 2/893 | 0/004 |

F was concluded to be 17.96 for the relationship between educational level and satisfaction level which was greater than F at 1% degree of confidence. The null hypothesis was therefore rejected, i. e., there was a significant relationship between satisfaction level and educational level. Duncan-Toki test was employed to find the position of the difference.

Table 3: comparing the means of responders' satisfaction with Rural Mater Plans based on their personal characteristics (educational level and social function)

| Dependent variable | Independent variables | | Sum of squares | df | mean | F | Sig. |
|--------------------|-----------------------|-------------|----------------|-----|----------|--------|-------|
| Satisfaction level | Educational level | Inter-group | 4354/804 | 4 | 1088/701 | 17/966 | 0/000 |
| | | Intra-group | 8786/456 | 145 | 60/596 | | |
| | Social function | Inter-group | 47/741 | 1 | 47/741 | 0/540 | 0/464 |
| | | Intra-group | 13093/519 | 148 | 88/470 | | |

Table 4: Toki test analysis for the difference in education variable between the groups

| | (I) degree | (J) degree | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|-----------|------------|-------------------|-----------------------|------------|-------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Tukey HSD | illiterate | elementary | 10/25840* | 1/98655 | 0/000 | 4/7707 | 15/7461 |
| | | Under-high school | 7/96429* | 2/16541 | 0/003 | 1/9825 | 13/9460 |
| | | High school | 9/39907* | 2/19061 | 0/000 | 3/3477 | 15/4504 |
| | | Above-high school | 16/03746* | 1/90843 | 0/000 | 10/7656 | 21/3093 |
| | elementary | illiterate | -10/25840* | 1.98655 | 0/000 | -15/7461 | -4/7707 |
| | | Under-high school | -2/29412 | 2/07535 | 0/803 | -8/0271 | 3/4388 |
| | | High school | -0/85934 | 2/10163 | 0/994 | -6/6649 | 4/9462 |
| | | Above-high school | 5/77905* | 1/80560 | 0/014 | 0/7912 | 10/7669 |
| | | illiterate | -7/96429* | 2/16541 | 0/003 | -13/9460 | -1/9825 |

| | | | | | | | |
|--|-------------------|-------------------|------------|---------|-------|----------|----------|
| | under-high school | elementary | 2/29412 | 2/07535 | 0/803 | -3/4388 | 8/0271 |
| | | High school | 1/43478 | 2/27145 | 0/970 | -4/8399 | 7/7094 |
| | | Above-high school | 8/07317* | 2/00070 | 0/001 | 2/5464 | 13/5999 |
| | High school | illiterate | -9/39907* | 2/19061 | 0/000 | -15/4504 | -3/3477 |
| | | elementary | 0/85934 | 2/10163 | 0/994 | -4/9462 | 6/6649 |
| | | Under-high school | -1/43478 | 2/27145 | 0/970 | -7/7094 | 4/8399 |
| | | Above-high school | 6/63839* | 2/02795 | 0/011 | 1/0364 | 12/2404 |
| | Above-high school | Illiterate | -16/03746* | 1/90843 | 0/000 | -21/3093 | -10/7656 |
| | | elementary | -5/77905* | 1/80560 | 0/014 | -10/7669 | -0/7912 |
| | | Under-high school | -8/07317* | 2/00070 | 0/001 | -13/5999 | -2/5464 |
| | | High school | -6/63839* | 2/02795 | 0/011 | -12/2404 | -1/0364 |

There was a significant difference between individuals with no education and elementary education, no education and under-high school, no education and high school, no education and above high school, elementary and above high school, under-high school and above-high school, high school and above high school. Since the mean of above-high school education is higher than other educational levels, subjects with above-high school education had a higher satisfaction level with RMPs implementation.

Hypothesis 3 test: There is a relationship between Rural Master Plans features (quality of paths and housing, shorter duration of implementation) and level of satisfaction with implementation of Rural Master Plans.

Among the variables related to the plans quality, there was a positive relationship between quality of paths, housing and constructions and the duration of implementation with satisfaction level at the confidence degree of 1%. As a result, with higher quality level of paths and housing and shorter implementation time, satisfaction increased. Of these, quality of paths had correlation coefficient of 0.91 indicating a strong influence of this variable on villagers' satisfaction with the implemented plans. Housing quality and shorter duration of implementation were at second and third places, respectively.

Table 5: relationship between quality of paths, housing and duration of implementation with satisfaction

| Dependant variable | Independent variablsle | Pearson's correlation coefficient | Significance level |
|---------------------------|--------------------------------------|--|---------------------------|
| Satisfaction level | Paths quality | 0/910** | 0/000 |
| | Quality of housing and constructions | 0/750** | 0/000 |
| | Implementation duration | 0/548** | 0/000 |

Hypothesis 4 test: there is a relationship between constructions being standard and satisfaction level with Rural Master Plans

There was a positive relationship between standardization of constructions and level of satisfaction at 1% degree of confidence. Therefore, more standard constructions increased satisfaction.

Table6: relationship between constructions being standard and level of satisfaction

| Dependent variable | Independent variables | Pearson's correlation coefficient | Significance level |
|---------------------------|------------------------------|--|---------------------------|
| Satisfaction level | Standard constructions | 0/678** | 0/000 |

Hypothesis 5 test: There is a relationship between villagers' participation in RMP and their level of satisfaction

At 1% degree of confidence, there was a positive relationship between villagers' participation in RMP and their level of satisfaction. Promoted participation would therefore increase satisfaction level.

Table 7: the relationship between participation and satisfaction level

| Dependant variable | Independent variable | Pearson's correlation coefficient | Significance level |
|---------------------------|-----------------------------|--|---------------------------|
| satisfaction level | participation | 0/502** | 0/000 |

Hypothesis test 6: there is a relationship between a village's hygienic and satisfaction with the plans.

At 1% degree of confidence, there was a positive relationship between villagers' hygienic level and their level of satisfaction. Higher level of healthcare would therefore increase satisfaction level.

Table 8: relationship between improved hygienic level and satisfaction level

| Dependant variable | Independent variable | Pearson's correlation coefficient | Significance level |
|---------------------------|-----------------------------|--|---------------------------|
| satisfaction level | improved hygienic | 0/896** | 0/000 |

Hypothesis 7 test: there is a relationship between level of constructions' reforms and villagers' satisfaction with Rural Master Plans.

At 1% degree of confidence, there was a positive relationship between constructions' reforms and level of satisfaction. More desirable reforms in physical environment would therefore increase satisfaction with the plans.

Table 9: relationship of reformation level and satisfaction level

| Dependant variable | Independent variables | Pearson's correlation coefficient | Significance level |
|---------------------------|---------------------------------|--|---------------------------|
| Satisfaction level | Level of constructions' reforms | 0/733** | 0/000 |

Hypothesis 8 test: there is a relationship between level of convenience in communicational services and villagers' satisfaction with Rural Master Plans.

There was a positive relationship between communicational services availability and satisfaction level at 1% degree of confidence. More traffic and communicational services availability increased villagers' satisfaction with RMPs.

Table10: relationship between communicational services and satisfaction level

| Dependant variable | Independent variable | Pearson's correlation coefficient | Significance level |
|---------------------------|-----------------------------|--|---------------------------|
| Satisfaction level | Convenience | 0/686** | 0/000 |

Hypothesis 9 test: there is a significant difference in satisfaction level with implementing RMP among villagers of Southern Leylan Rural District.

To compare villagers' level of satisfaction with implementation of Rural Master Plans, mean comparison F-test was employed. Since the F-test was not significant, there was no significant difference between villagers' satisfaction with the plans among villagers of Leylan District.

Table 11: Variance analysis of mean of satisfaction level among villagers of Southern Leylan Rural District

| Independent variable | Dependant variable | | Sum of squares | df | mean | F | Sig. |
|----------------------|--------------------|--------------|----------------|-----|--------|-------|-------|
| Satisfaction level | villages | Inter-groups | 47/741 | 1 | 47/741 | 0/540 | 0/464 |
| | | Intra-groups | 13093/519 | 148 | 88/470 | | |

CONCLUSION

Results of the study showed that the most studied villagers (30%) had no children and mean of number of children was 2.84. There was a significant relationship between children number and satisfaction level at 0.99% degree of confidence, i. e., more children would promote level of satisfaction with implementation of Rural Master Plans. The reason for this may be improved living facilities and housing for bigger families after implementing the plans. These findings are consistent with Azeri and Yusofi (2009).

Results indicated that more frequencies (27.3%) related to above-high school educational level and the lowest academic degree was for high school (23%) indicating higher educational level among the villagers. There was also a significant relationship between satisfaction with the plans and educational level of responders at 99% degree of confidence. The results are consistent with Siegfried and Budjurova (2011).

Results also indicated that 68.7% of the villagers were farmers and there was a significant relationship between satisfaction with the plans and main occupation at 0.99% degree of confidence. Level of satisfaction was higher among farmers than non-farmers because implementing these plans led to villagers' faster in-time access to local as well as urban markets and also economy of time and money in getting the products to the markets. These findings are consistent with Long et al (2011).

As findings show, most frequencies were of farming lands with 3ha (16.7%) and lowest frequency was for 6 ha (1.3%). They also indicated no significant relationship between farmland size and satisfaction level.

Our results showed that 92.7% of the villagers lacked a social function and only 7.3% of them were members of the Islamic Rural Council. Results also indicated no significant relationship between social functions and satisfaction level.

Results also showed that 54% of villagers had a moderate level of satisfaction with the plans and 38% of them were non-satisfied. Only 8% of the responders were satisfied with RMPs implementation.

We found that there was a significant relationship between availability and convenience of traffic services (correlation coefficient=0.68) and satisfaction level. Therefore, higher quality

of traffic services would result in more satisfaction with the plans in villagers. These findings were in consistency with Azimi and Jamshidian (2005).

Results also indicated a positive relationship between constructions being standard (correlation coefficient=0.68) and satisfaction level so that more standard constructions would ensure higher level of villagers' satisfaction. The finding was consistent with Fozuni Ardakani and Hayati's study (2011).

There was a positive significant relationship between quality of paths (correlation coefficient=0.90), housing and constructions (correlation coefficient=0.75) and satisfaction level so that high quality paths and housing would lead to higher satisfaction level. This was not consistent with Torkashvand's study (2008) on level of satisfaction with RMPs and their consequences, indicating that although the plans regarded renewal of housing, paths and residential areas, they imposed many reverse consequences as gradual elimination of local capacity, incoherent appearance of villages, and rural asymmetric development bringing various problems as well as villagers' dissatisfaction.

Results showed a positive significant relationship between high quality hygienic services (correlation coefficient=0.89) and satisfaction level. Higher healthcare services led to more satisfaction. This is consistent with a study by Borzoo et al (2010) on the problems made by Rural Mater Plans' implementation in Karnachi village, Kermanshah, Iran, which brought a high level of dissatisfaction with the plans due to taking healthcare, welfare, and lack of drainage canals for granted, which in turn brought about many different health problems and diseases.

Results indicated that convenient traffic was the first expectation villagers had from the plans and lower costs was the last of them.

Results related to perceived value of the plans by the villagers showed that this value is so much perceived that the villagers would like to change their farms for the plans. This result was not consistent with Shahkuee (2001) which indicated that one major concern of the villagers was that their houses were going to blow down.

This study also indicated that most villagers agree with implementation of RMPs; participation in maintaining projects, work force supply, and preparation of the design are at first, second and third rates. The least participation level was for villagers' donations for the plans. Coefficient correlation of satisfaction level showed that this correlation was moderate. This finding was consistent with studies by Azimi-Jamshidian (2005), Borzoo et al, (2010) and Shahkuee (2001).

Results also showed that, among the criteria of standard constructions, controlling constructions were of the highest important and appearance of buildings was of the lowest importance for villagers.

F-test indicated that there was no significant relationship in villagers' level of satisfaction with the plans.

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