

J. Env. Sci. Tech., 2002, No. 14

The Ecotorism Study of the Ecotorism of Lavasanat Meygoon and Fasham Region

Nouri, J.

School of Public Health and Instilut of Public Health Research, Tehran University of Medical Sciences.

Khosravifard, S.

College of the Environment, Islamic Azad University.

Keywords: Ecological Study, Evaluation of Potentials and competence
out door recreation, Ecotorism, Lavasnat, Meygoon and Fasham

Abstract

Study of the ecological status and evaluation of the ecological competence of Lavasanat region, with reiteration upon Meygoon and Fasham regions, as tourist attractions and a location for Tehranian Citizen people to the regions vicinity and existence of natural attractions, took place in the year 2001.

Different study phases, including identification of physical and environmental resources, integration of the data, coding of ecological units and, finally evaluation of the environment competence, with the application of slope, direction, altitude, land formation, pedological, vegetation types, vegetation coverage density percentage and climate maps, with the scales of 1:100,000 took place . At the identification stage, physical sources of climatic parameters, water resources, land formation and pedology were considered, while completing an additional study of environmental flora resources. Integration and summing up of data, were in fact the

main and at the same time, the most complicated ecological competence assessment in this study. The basis of this method was mainly, combination of the related data and information of the physical and environmental resources, which specified the regulated and disciplined groups of data summing up groups.

These determined groups are, in fact. The ecological units, which have been compared with the well developed tourism model in lavasanat, Meygoon and Fasham region. In this comparison, the competence of each of the ecological units of the said region, specified for application of the well developed tourism model, in separate classifications of appropriate, average and / or inappropriate competences.

The result of the study, shows that in the investigated region, from a total of 342 ecological units, there were 71 units Proportionate to the first class well-developed tourism and 183 units, in proportion to the second calss well-developed tourism. Therefore, 88 ecological units were not compatible with the well-developed tourism model, and were located as Class third.

Field studies showed that steep slopes, vulnerability and sensitivity of soil in regard to erosion, has caused restrictions upon promotion of well-developed tourism model.

Introduction

Assessment of environmental competence, such as ecological, economic and social competences, are equivalent to human potential exploitation of land for agriculture, range management, forestry, park mainterance, cultivation of aquatics, tourism, urban, rural and industrial developments, which take place under the framework of agricultural, industrial, servicing and commercial activities (5). Mean while, in comparison to the other economic activities, tourism is further compatible with the environment, and if its implemented under the framework of an appropriate policy and well-known regulations, preservation of living environment would be possible (4,8). Nature tourism, which is know as ecotourism, is a relatively new phenomenon, which only covers a part of tourism industry. Its referred to that kind of tourism, which is based upon a goal oriented trip. Aims of these trips can include

studying, entertainment, more oriented exploitation of views, plants, animals, and another contemporary past cultural aspects in the region (2). Touring in nature or well developed tourism need minimum facilities and its generally coordinated with ecotourism goals, are some applications. Which must be ecologically assessed for promotion. Note that evaluation of ecological competence, is a process which provides a promotion processes, deserved by and coordinated with the nature (3,7). Lavasanat, Meygoon and Fasham Nat region is located in Shemiranat, which provides numerous luring potentials, being a tourist attraction spot. On one hand, the acute and abnormal living environment of Tehran, growth of population and intensifying environmental pollutants, have made this city's environment, impossible for their residents. Hence, the resident to tourist oriented countryside's and lavasanat Meygoon and Fasham region, enjoys this potential status. The studied region, is located in Eastern longitude of $51^{\circ}, 25'$ to $51^{\circ}, 50'$ and northern latitude of $36^{\circ}, 5'$ to $35^{\circ}, 45'$. It is a mountaneous region, and in accordance to classification its not considered as a cold climate. Other regional important rivers include: Ahar, garmabdar, Afjeh, Enameh and lavarak rivers (1,9). The tourism attraction sites of the region are mainly, divided into 3 natural, athletic and touring attractions and historical and religious attraction sites (Table 1) (6).

Table 1: Tourist attraction sites of studied Lavasanat, Meygoon and Fasham region (5)

Region	Natural attraction				Athletic & tourism attraction	Religious & historical attraction
	Cavas	Rivers	Water falls	Other attraction sites		
Meygon & fasham	Hamlon Keyghobad Chah zangir	Jajrood Ahar Ab-meygon Garmabdar	Shekarab Oshan	Khatoon bargah mount	Darbandsar & Shemshak ski pistes Mountaineering Fishing	Zahed & taher shirin Nahid fire temple Anis-doleh & king Kmozafar palace
Lavasanat	Khamireh	Jajrood Afjeh Lavarak Enameh	Benaj	Latian dom lake natural fridge atosh mount	Mountaineering Fishing	Seyed-mirsalim cham kaleh – ghandi hill zahak castle

The aim of this research , is to identify the ecological competence of Lavasanat, Meygoon and Fasham regions, so it would be specified whether the region is appropriate for Tourism?

And/or whether the ecological competence of the region, fulfils the needs of well- developed tourism model or not? So that by this means, the regional ecological competence for tourism, specially its promotion, shall be determined.

Material and Methods:

In the study of regional ecological competence, the method of maps overlapping was the basis of the methodology: Completed throughout 4 phases:

A- Identification of Resources:

The essential sources for assessment of the ecological competence; included physical and biological sources. Climate, water resources, and Plots of Land full of physical resources and vegetation coverage and wildlife; of the regional biological sources; where studied previously. A awareness of the slope, direction, and altitude, which in total, amount to the land formation, as well as the vegetation types, density percentage where needed for execution of this study. Hence, they were identified, hereby, complementing and completing previous executed studies.

B- Integration and classification of Data:

This phase, is the most complicated and the main stage of this study. For assessment of their ecological competence. Combination of the data and information relating to the ecological resources of Lavasanat, Meygoon and Fasham region has been the basis of this methodology. All of this stages, regular specified data groups were summed up in determined classification. These classifications were in fact, the same ecological units, resulting from the combination of maps. In order to specify the ecological units following steps were completed:

- 1- Application of a topographical map for preparation of maps of slopes, directions and altitude of the region.

- 2- Overlapping of region slope and altitude as well as preparation of preliminary Land formation units.
- 3- Overlapping of preliminary units map and the geographical direction of the region, in addition to preparation of the land formation units maps.
- 4- Overlapping of land formation units and land resources maps of the region, as well as the preparation of a first (level) class ecological map of the region.
- 5- Overlapping of the first class ecological units and vegetation types maps of the region and preparation of second class regional ecological units map.
- 6- Overlapping of second class ecological units map & vegetation coverage density percentage of the region, as well as, preparation of regional ecological units map.

C- Coding of Ecological Units:

Coding were executed in order to identify the ecological units.

This practice was fulfilled from the 1st stage of overlapping of maps, simultaneously.

This coding, finally, led to the regulation of ecological units, during which, each unit was specified with a particular code.

D- Evalation of the Regional Ecological:

Competenc for promotion of out door recreation Model.

By comparison of the chareatristic of the regional ecological units, with the presented well-Developed Tourism model. For this regional, the regional ecological Competence for paramootion of well-developed Tourism model, was clarified.

Results

In order to study the ecological status of lavasanat region, via application of a topographical map, prepared at a scale of 1:100000, by the geographical organiztion, solpe, Altitude & geographical direction maps of the region, were extracted. Charts 1 and 2, manifest the relationship of the percentage of slope atages, and levels, as well as the regional altitudinal levels, percentile, over total area of the region. By application of the dual – combining

Methodology slope and altitude maps were combined together, and , the preliminary map of the land formation units map with the geographical direction map of lavasanat, Meygoon and Fasham region; the map of land formation units resulted (map 1). Characteristics of land formation units resulted (map 1). Characteristics of land formation units are stated in table 2, which manifests the slope, altitude and geographical direction of each land formation units.

By application of dual – combination methodology, the land formation units map and land resources map were combined; and the 1.st class ecological units map of lavasanat, Meygoon and Fasham Region resulted.

In the same manner, by combining the map of 1.st class ecological units with the regional Vegetation cover map; and class ecological units map of lavasanat resulted Similarly; by combination of the latter map with the vegetation coverage percentage map ; Lavasanat, Meygoon and Fasham regional ecological units map resulted (map2) . With in the lavasanat regional ecological units were attained; which dual to the vastness of these units; Table 3, only, manifests the specification of Meygon and Fasham region ecological units. This table portrays the altitude, slope direction, plots of vegetation coverage Density in each of the regional units. The final column of table 3, manifest. The well-developed tourism competence in two region of Fasham and meyon. Obviously, this (competence) has resulted from comparison has resulted from comparison of the studied region's well developed Tourism Model with the ecological units Specifications.

Table 2: Land Formation Unit in Lavasanat, Meygoon and Fasham Regions

CODE	Altitude level	Slope Level	Direction Lever
16	2	1	1
19	2	1	4
20	2	1	5
21	2	2	1
22	2	2	2
24	2	2	4
25	2	2	5
26	2	3	1
27	2	3	2
28	2	3	3
29	2	3	4
30	2	3	5
31	3	1	1
34	3	1	4
35	3	1	5
37	3	2	2
38	3	2	3
39	3	2	4
40	3	2	5
41	3	3	1
42	3	3	2
43	3	3	3
44	3	3	4
45	3	3	5
49	4	1	4
50	4	1	5
52	4	2	2
53	4	2	3
54	4	2	4

Table 2(continued): Land Formation Unit in Lavasanat, Meygoon and Fasham Regions

CODE	Altitude level	Slope Level	Direction Lever
55	4	2	3
56	4	3	1
57	4	3	2
58	4	3	3
59	4	3	4
60	4	3	5
64	5	1	4
67	5	2	2
68	5	2	3
70	5	2	5
72	5	3	2
73	5	3	3
74	5	3	4
75	5	3	5
82	6	2	2
83	6	2	3
84	6	2	4
85	6	2	5
87	6	3	2
88	6	3	3
89	6	3	4
90	6	3	5
98	7	2	2
99	7	2	4
102	7	3	2
104	7	3	4

Table 3: Characteristics of Meygoon and Fasham Regional Ecological Unit and their Capacity for Outdoor Recreation Model Materialization

Capacity of outdoor recreation	River's Minor	Climate	Flora & Percentage of Density *	Land Components	Geographic cell direction	Slope (%)	Altitude of Sea Level(m.) (Min. Max)	Unit code
Average	Ab-Meygoon	Extremely Cold Highly Humid (A)	Fe,As,Co,On % (20-40)	High & bumpy Alborz Mountains are mainly covered with hard limestone soil coverage of Reggell & Lithocell	West	30-65	1600-2000	30a511
Appropriate	Ab-Meygoon	"	Si,As,Se,Ag % (30-40)		West	30-65	1600-2000	30a511
Average	Ab-Meygoon	"	Garden & Agriculture % (20-30)		West	30-65	2000-2400	45a011
Appropriate	Jadfood	Extremely Cold Humid	Garden & Agriculture % (20-40)		South	0-8	2000-2400	34b011
"	Jadfood	Extremely Cold Humid	Ar,Cl,Na,La % (20-30)		South	0-8	2000-2400	34b011
"	Garnabdar	"	Ju % (20-30)	High and Rough Alborz Mountains, are Mainly Covered with Hard (and at time igneous stones) Limestone. Low depth soil, profound and Semi-deep soil.	West	8-30	2000-2400	40b11
"	Ab-Meygoon	Extremely Cold Highly Humid (A)	Fe,As,Co,On % (20-30)		West	8-30	2000-2400	40b11
Average	Garnabdar	Extremely Cold Semi-burned	Ar,cl,Na,La % (20-30)		South	30-65	2000-2400	44b311
"	Abhar	Extremely Cold Humid	Fe,As,Co,On % (20-30)		South	30-65	2000-2400	44b511
"	Jadfood	Extremely Cold Highly Humid (A)	Fe,As,Co,On % (20-30)		West	30-65	2000-2400	45b511
"	Abhar	"	Fe,As,Co,On % (30-60)	High & bumpy Alborz Mountains with igneous stones Type soil: Reggell and Lithocell	West	30-65	2000-2400	45b511
Appropriate	Ab-Meygoon	"	Fe,As,Co,On % (30-40)		West	8-30	2000-2400	55b511
Average	Abhar	Extremely Cold Humid	Br,As,Co,On % (20-30)		South	8-30	2000-2400	39c411
Average	Abhar	"	Garden & Agriculture % (20-30)		North	30-65	2000-2400	41c011

Table 3(continued): Characteristics of Meygoon and Fasham Regional Ecological Unite and their Caspasy for Outdoor Recreation Model Materialization

Capacity of outdoor recreation	River's Minor	Climate	Flora & Percentage of Density *	Land Components	Geographi- cal direction	Slope (%)	Altitude of Sea Level(m.) (Min. Max)	Unit code
-	Abur	Extremely Cold Highly Humid (A)	Garden & Agriculture % (20-30)	High and bumpy Abzur Mountains, highly variable Soil Coverage Type of Soil: Regucell Inthocell	South	30-45	2000-2400	44c01I
Appropriate	Abur	-	Fe,As,Co on % (20-40)		South	>65	2000-2400	44c51I
-	Jadirood	Extremely Cold	Fe,As,Co on % (20-30)		West	>65	2000-2400	45c51
-	Garmablar	Mediterranean Extremely Cold Highly Humid (A)	Ar,Ch,Ne,La % (20-30)		South	>65	2000-2400	44d01I
Average	Jadirood	-	Fe,As,Co on % (20-30)		West	30-65	2000-2400	45d51I
Appropriate	Garmablar	Extremely Cold Humid	Fe,As,Co on % (20-40)	High and Rough Alborz Mountains are mainly covered limestone highly variable soil coverage	West	>65	2000-2400	45d51II
Average	Jadirood	-	Fe,As,Co on % (20-40)		West	30-65	2400-2800	60d51II
Average	Jadirood	-	Fe,As,Co on % (20-40)		West	>65	2400-2800	30c31I
Average	Jadirood	-	Ar,Ch,ne,La % (20-30)		North	30-65	2000-2400	42c31
-	Jadirood	-	Ar,Ch,ne,La % (20-30)		West	30-65	200-2400	45c31
Appropriate	Ab-Meygoon	-	Fe,As,Co on % (20-40)	High Alborz Mountains with igneous stone without soil coverage	West	0-8	2400-2800	50p51I
-	Ab-Meygoon	Extremely Cold Highly Humid (A)	Fe,As,Co on % (20-40)		West	8-30	2400-2800	53p51I

*Fe : Festuca
Ju: Juniperus

As: Astragalus
Ar: Artemisia

Co: Cousinia
La: Launaea

On: Onobrychis
No: Noea

Sc: Sida
Br: Braccaria

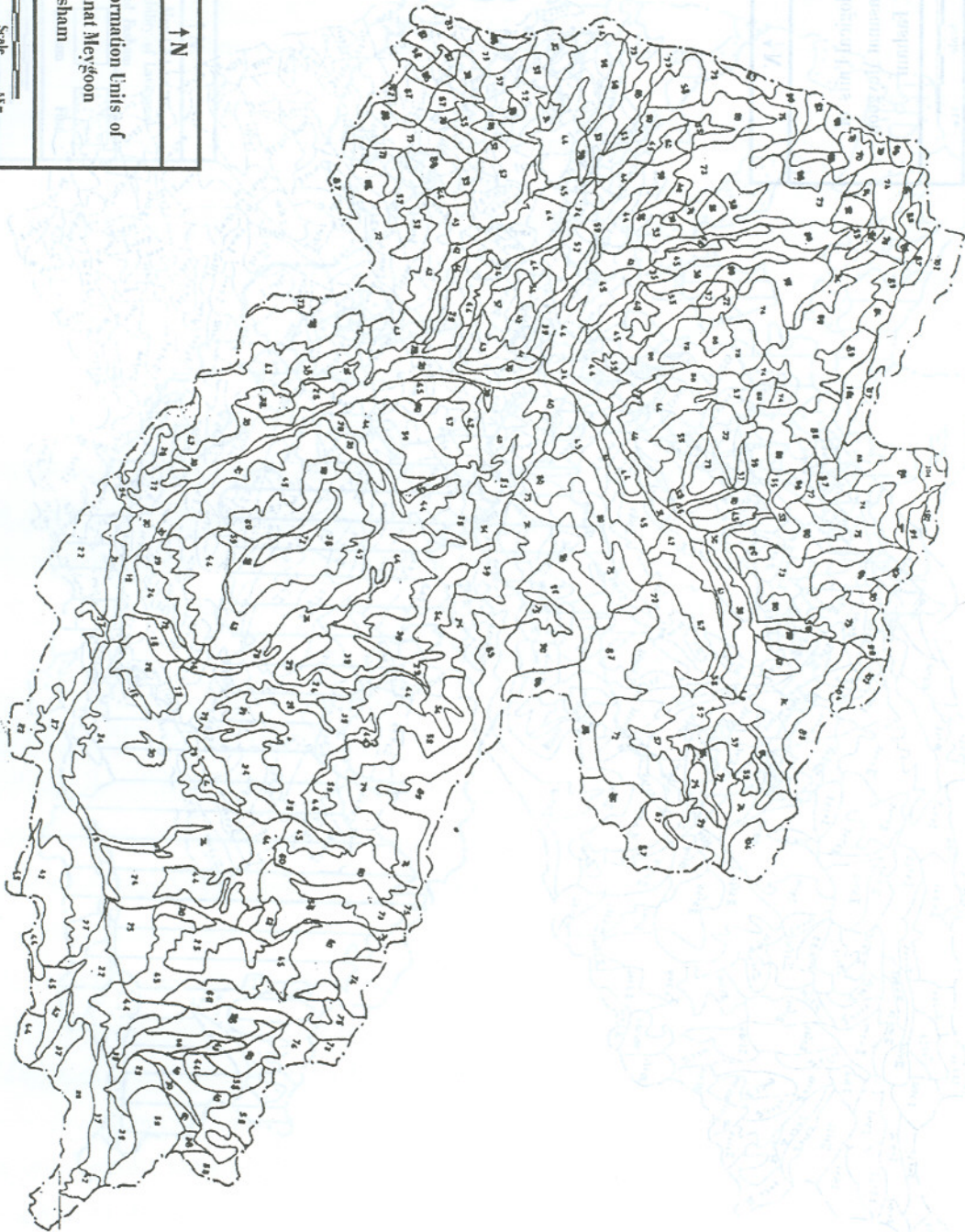
Sc: Salvia

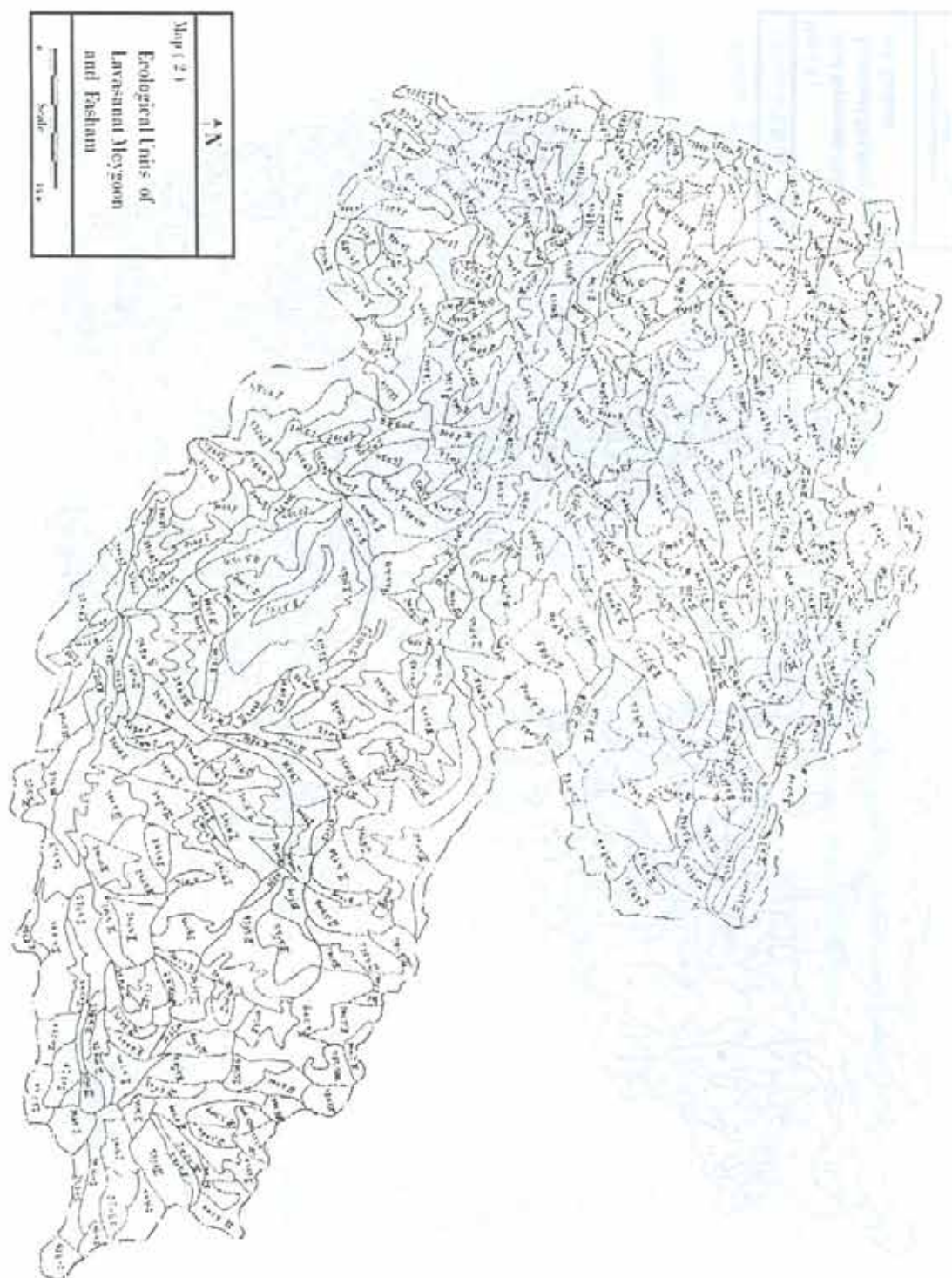
Ag: Agropyron

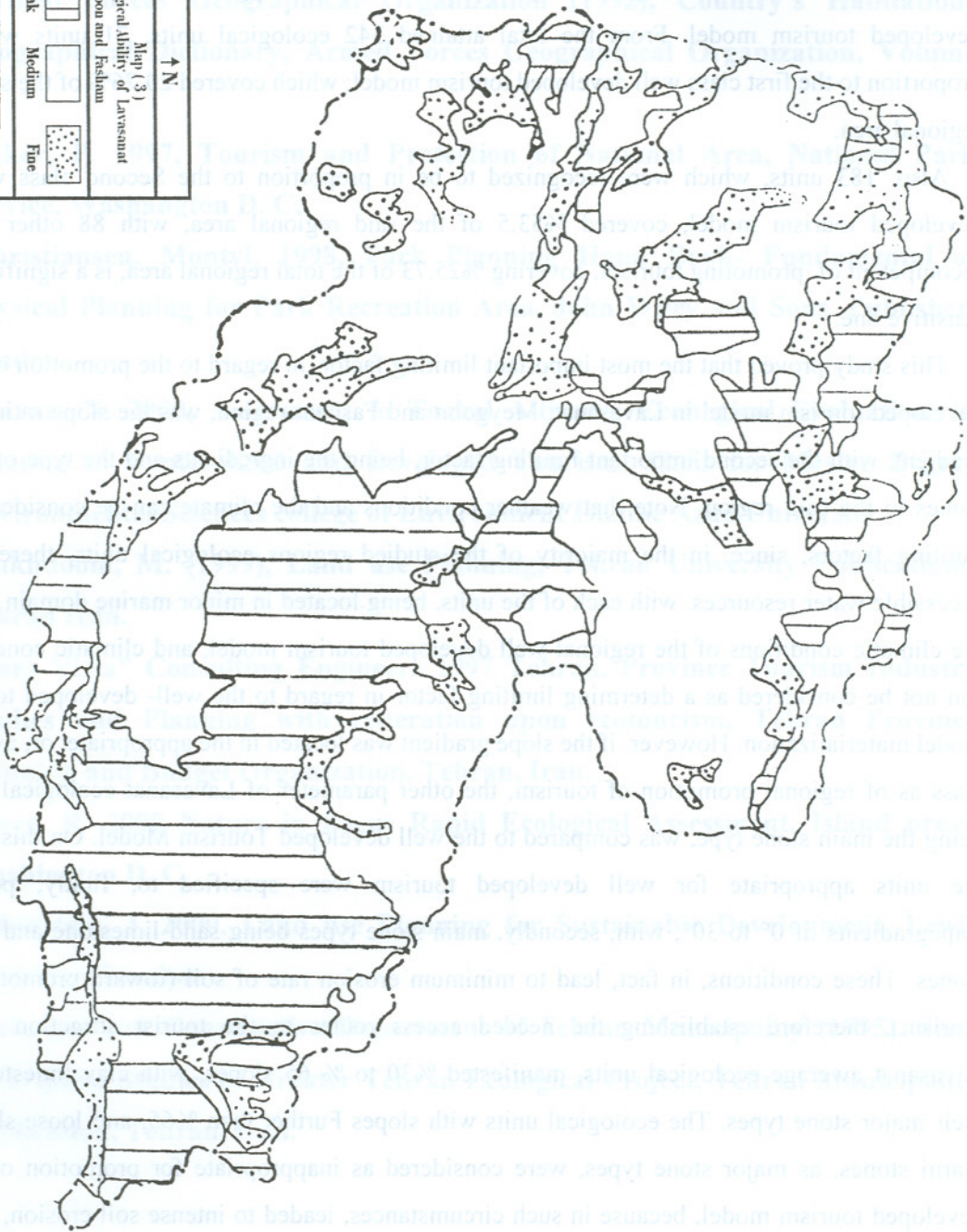
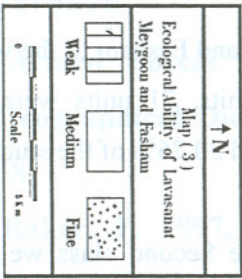
Map (1)
Land Formation Units of
Lavasanat Meygoun
and Fasham

↑ N

Scale 55 m







Discussion and Conclusion:

In order to assess the ecological competence of Lavasanat, Meygoon and Fasham to the well developed tourism model. From the total attained 342 ecological units, 71 units were in proportion to the first class well developed tourism model; which covered 20.76% of the studied regional area.

Also, 183 units, which were recognized to be in proportion to the Second class well developed tourism model, covered 53.5% of the said regional area, with 88 other units, incompetent of promoting tourism, covering 25.73% of the total regional area, is a significantly sensitive one.

This study proved that the most important limiting factor, in regard to the promotion of well developed tourism model in Lavasanat, Meygoon and Fasham region, was the slope rating and gradient, with the second important limiting factor, being the ingredients and the type of main stones in the said region. Note that weather conditions and the climate can be considered as limiting factors, since, in the majority of the studied regions ecological units, there were accessible water resources, with each of the units, being located in minor marine domain. Also, the climatic conditions of the regional well developed tourism model, and climatic conditions can not be considered as a determining limiting factor in regard to the well developed tourism model materialization. However, if the slope gradient was located in the appropriate, or, average class as of regional promotion of tourism, the other parameter of Lavasanat ecological units, being the main stone type, was compared to the well developed Tourism Model. On this basis, the units appropriate for well developed tourism were specified to, firstly, possess slopegradients of 0° to 30° , with, secondly, main stone types being sand limestone and lower stones. These conditions, in fact, lead to minimum erosion rate of soil (toward promotion of tourism), therefore establishing the needed access routes to the tourist attraction sites. Lavasanat average ecological units, manifested 30% to 65% slopes, with clay limestone as their major stone types. The ecological units with slopes Further than 65%, and loose slit and marni stones, as major stone types, were considered as inappropriate for promotion of well developed tourism model, because in such circumstances, led to intense soil erosion, in the region, in regard to constructing of access routes. Note that has to be done inside these region.

Reference

- 1- Armed Forces Geographical Organization (1992), Country's Habitations Geographical Dictionary, Armed Forces Geographical Organization, Volume 38.
- 2- Baker, P. 1997, Tourism and Protection of National Area, National Park Service, Washangton D. C.
- 3- Christiansen, Montyl, 1998, Park Planning Hand Book- Fundamental of Physical Planning for Park Recreation Area, John Wiley and Sons. Publisher, London.
- 4- Shayan, N. 2000, Assessment fo Tochal Altitudes Econogical Evaluation, in Relation to Centralized and Developed Tourism, Theis for Master Degree Environmental Sciences college of Environment Islamic Azad University.
- 5- Makhdoom, M. (1999), Land use Planning, Tehran University Publications, Tehran Iran.
- 6- "Pars Vista" Consulting Engineers 1997 Tehran. Province Tourism Industry Studies and Planning with reiteration upon ecotourism, Tehran Province Planning and Budget Organization, Tehran, Iran.
- 7- Sayre, R. 2000 Nature in Focus Rapid Ecological Assessment, Island press, Washington D. C.
- 8- Silberstein, J. 2000. Land use Planning for Sustainable Development, Lewis publisher, London.
- 9- Technical and Constructive Department of Tehran Municipality (1995). Semi Descriptive Studies of Greater Tehran Ecological Project, Tehran Municipality Publication, Tehran, Iran.