

The Role of Environmental Non-Governmental Organizations in Natural Resources Management Extension (Case Study in Iran)

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Abstract: This study describes the emergence, development and functions of Environmental Non-Governmental Organizations (ENGO) and addresses their role and impact in Natural Resources Management Extension (NRME) in Iran. The study also attempts to describe the collaboration and support of government organizations managing natural resources, mainly National Forest and Pasture Organization (NFPO) and Environmental Conservation Organization (ECO) and locally based ENGOs in this country. Quasi-Experimental research method is used in this research. Statistics population used concern committee members of 204 registered ENGO from which 65 ENGOs participated in the call up for research meeting. Questioner used in field research to attained necessary data consisted of 60 questions. The validity coefficient of this questioner (Cronbach's alpha coefficient) was $\alpha=92.17$. In this research, 18 independent variables and one dependent variable were measured. In reviewing the research results, 100 types and over 2500 ENGO are identified from which close to 9% are registered. The average level of ENGOs relations with NFPO and its effect upon their activities scored at low and very low respectively and they rarely receive expert services from NFPO. Similarly, the impact of ECO upon the activities of ENGOs and relationship between them both were rated at medium level. The overall average rank of ENGOs success in NRME was at medium level which is less than hoped. At the end of this research, few hypotheses dealing with the effect of independent variables upon dependent variable were tested and some recommendations for better use of ENGOs with respect to NRME in Iran are presented.

Key words: ENGO, NGO, natural resources extension education, forestry extension

INTRODUCTION

The idea of offering leading services for agricultural and natural resources growth and development in the world can be traced back to the establishment of Agricultural Societies. The creation of cooperation amongst farmers was the prime goal of Agricultural Societies. These societies that were open to the public played a key role in the exchange of agricultural extension beliefs and opinions. By 1970, Non-Governmental Organization (NGO) was established and well known throughout the world; but before 1970 they were operating under different society and group names. Today there are hundreds of thousands NGOs around the world fulfilling people participation in different aspects with or without their governmental support.

Until now International Societies Union has classified approximately 100 various types of NGO (Jihad Ministry Office for the People's Participation Movement). During the 1970's the world witnessed the creation of various organizations and organizational groups operating outside the basis of facilitated and

regulated governmental organizations. These group's possessed goals such as assistance to women, preservation of the environment, peace, combating against nuclear activities etc. and they create organizations for executing their affairs and plans all under the name of Non-Governmental Organization^[1].

The UN describes NGO as any private volunteer group of world citizens established on a regional, national, or international level and presents their opinions and professional evaluations and responds to threatening.

Generally, these organizations are known as civilian players who operate amongst government and private divisions. They make up a third level that alongside integrating different group's interests, offers civilians a role in shaping politics and the results of developmental plans^[2].

Farrington and Benington^[3], believe that in today's world NGO poses a high attraction. This is firstly due to the great inclination for nurturing civilian processes and secondly, because NGO is viewed as an element for filling in gaps existing in government weak programs, caused by financial and administrative crisis in developing countries.

Van Den Ban^[4], in regards to NGO stated that this organization possesses an important role and affects rural development and extension education.

NGO's have organized extension activities for meeting the needs of groups, selected amongst farmers or rural families. As this organization creates more problems than producing technology it generally uses the "help yourself method", which emphasizes more on participation.

The phrase Non-Governmental Organization pertains to institutions that do not receive direct government funding and its members activities do not result in government responsibility. At times, this expression has the same meaning as People Organization (PO). This organization is mediating between people and governments that are constantly being established and dissolved. Normally governments play active roles towards this organization as these organizations supervise and control government activities. The most important tools and media for this organization are newspapers, journals and other mass media; such as television and radio.

Recently reports published by the World Cultural and Developing Committees stated the number of NGO on the international level as 28,900 Approximately half of the existing NGO's in the world are situated in developing countries. In addition to mentioning several interesting points pertaining to existing ENGOs, Simmons^[5] in his book called Earth, Water and Air reports that in 1990 the number of these ENGO's members were over two million, this demonstrates NGO importance and attraction in developing countries^[5].

In 1987, Shah and Wier studied the Social Forestry Findings undertaken by Aghakhan Society in West India. The three states of Gajrat, Rajestan and Maharashtar were used in the research. Moreover, it stated that according to estimations of the National Agency for the Preservation of Forests, during 1972-1982 in these three states, accordingly, 47, 25 and 36% forest coverage was lost. Nevertheless, during these years minimal economic, technical and training assistance was offered to these regions population. However, since 1982 Aghakhan Society with NGO assistance has executed the Forester Society Findings on a regional level with the main responsibility upon this organization. In their study, they reached three conclusions:

1. During this period, NGO was able to assist the poor who possessed no land and increase participation in forestry plans and forest preservation, by this they preserved the forest and increased their income.
2. The NGO was able to provide a suitable and inexpensive solution to forest preservation as well as the creation of cooperation between the regions people and new technology and innovation.

3. They organized people into regional groups for the purpose of increasing efficiency, as well as assisting them to attain further access to government services.

Non-governmental organization networks in Iran can be described as follows:

1. The Bioenvironmental NGO is any environmental group that is independent, civilian volunteer, private or independent from a government organization and formed on the national, regional and/or international level. This organizations goals and responsibilities are defined as people undertaking humanitarian activities that possess mutual interests and goals. This organization possesses special and public aspects and is active in the areas of informing, training, research, extension etc.
2. The axis of the Bio-environmental Organization is active in preservation and the increase of environment quality.
3. The People Organization accepts members and has an open system for the development of people's cooperation.

The office of the UNDP in Iran believes that population growth and uneven development is the cause for environmental destruction and causes it to be prone to damage. During the past half-century, wide forest areas have been wiped out due to exploitation without a specific method and the green house effect. Farmlands have become unfertile lands and various wild lives such as the famous Khazar Tiger and the Iranian Lion have almost been led into extinction. Moreover, the greenery of the North is on the verge of destruction, air pollution in most major cities is over world standards and like most Middle Eastern countries, Iran is experiencing a water shortage^[6]. During its studies, the above mentioned office, has incurred three factors limiting NGOs activities in Iran, they are as follows:

- A. **Registration:** Various deciding centers register NGO's and this has led to disorder, as is clearly being witnessed.
- B. **Funding:** As a majority of NGOs is not able to meet their financial requirements sufficiently, they incur severe financial dilemmas. Tax laws lack clear guidelines pertaining to NGO tax problems.
- C. **Management:** Weak management is a great problem for NGO's in Iran. Most NGO's prefer to rely and count just on one or few prestigious members for decision making and fundings. Moreover, a majority of these organizations lack knowledge and beneficial experience for running a NGO^[6].

The World Bank cites several factors limiting the range of NGOs' activity as: possessing technical knowledge only in one specific area, limited organizational capacity, limited relationship with other organizations and willingness to work alone and the lack of understanding economical and social areas that they are involved in World Bank^[7].

Therefore, environmental NGO's are made up of an active group of volunteers with the same goals and are not associated to any particular organization with a defined agenda. Moreover, they possess articles regarding their environmental goals and the solution of their own problems. This organization is made up of volunteers for the removal of any obstacles to environmental preservation. They possess the same goal and are independent of any governmental agencies. Their activities are according to new developing civil society methods and government policies. At present, 2,200 NGO's, rising funds and organizing financial resources for Human Resource Development in member countries. These source only undertakes the execution of projects which have directly, or with the cooperation and participation of numerous societies and groups from third world countries, been undertaken by these NGOs.

Since the late 1980s, Iran has been rapidly progressing in natural resources infrastructure and Forestry Extension because of the fast rising natural resources degradation.

Pednekar^[8] points out in case of NGOs and NRM in Mainland Southeast Asia; indeed the degree of political freedom reflects the number and diversity of NGOs and their relationship with the government. NGOs have emerged and increased in number and influenced in NRTME since late 1980s, when the post-imposed war infrastructure began and political atmosphere has been relatively open in Iran. While the government is being more open, NGOs are learning how to contribute to and encourage public participation in RTME.

Since the government's attitude toward local NGOs was more of suspicious than cooperation in 1980s, the Iranian Government itself provided little support for them other than those that in terms of the Forestry Cooperatives established at the grassroots-level, under the supervision and encouragement of National Forestry and Pasture Organization (NFPO).

Also public environmental awareness in Iran gained priority by the government through Environmental Conservation Organization (ECN) for which many NGOs including registered and or unregistered emerged to fulfill this purpose. So far, natural resources and environmental conservation to encouraging public participation received the core concern in most forestry as well as ENGO.

Under few centrally-planned Economical-Social and Cultural Development Programs of the country, the need for participatory Natural Resources Management

Extension (NRME) was fulfilled by either existing or emerging NGOs whom were not, however, welcomed warmly by the government at the early 1990s. The role of some international donor agencies including various United Nation bodies who were financing their own community based development plans in Iran and willing to run them by eligible Iranian NGOs was quite significant in NGOs involvement in RTME.

The government agencies such as NFPO and ECO are accepting that NGOs are along them and that they are overseeing basic environmental constraints because NGOs lacking organizational sophistication in defining positions or in countering those of government, also they have close relationship with people in society. They often criticize government policies without proposing viable alternatives, or substantiating with evidence and scientific research, their own position on controversial issues. NGOs too bear in mind that they alone can not handle NRME, unless they receive technical and managerial advice and support from the government as well as the international donor organizations to complement their efforts.

In the past two decades, new ENGOs that extend and are active in environmental preservation have been created in Iran; however, they are experiencing some difficulties and constrains. After the Islamic Revolution ENGOs have developed as follows:

In the beginning of the first 5-year Development Program, only 5 ENGOs existed. These organizations have been registered and operated as private organizations with the preservation of the environment as a part of their general agenda. During the second 5-year Development Program, ENGOs were mainly registered as associations and in 1996 they amounted to 15. Different factors have caused the establishment of these NGO's in Iran as:

Large population and increasing poverty, air pollution, flowing water or underground water, piling up of industrial and domestic waste, deterioration of the ozone layer, heating of the earth and increase in green house gasses^[9].

The Center of Empowering Civil Society Organizations in Iran, studied 405 NGO's and found that over 80% were established after the Islamic Revolution. Their prime goal is cultural, vocational and professional supports protecting industries, professions and culture in civil society these organizations do not possess suitable equipment. Moreover, 44% possess their own office and or work-space and (Center for Empowering Civil Society Organizations in Iran, 2002).

Improper exploitations of mans vital lands are the cause of today's status; approximately 6 million hectors of land a year is turned into unreturnable deserts, every year approximately 20 million hectors of land become poverished in such a way that beneficial agriculture or grazing is not possible on it. The problem of desertification is a worldwide problem with 2/3% of 150 countries total area being threatened^[10]. After 30

years of the UN's first environmental conference at Stockholm in 1972, we still are witnessing constant and daily destruction of the environment and natural resources in third world countries are still without suitable access and even acceptable development. If the destruction of natural resources continues, not only will vital back up resources be exhausted, but also in the end, it will result in an environmental and economical disaster^[11].

Natural Resources Management, land management and agricultural extension agencies have tried many different approaches to increasing community participation in NRM. But their success has been less than hoped. There are many reasons why efforts to increase participation are not successful^[12]. Problems in NRM are not immediately obvious to people. When the problem is recognized, it is not always obvious what can be done. It is often the case that the consequences are off-site and/or downstream (public), but the costs of remedying the situation fall on individuals (private). Various programs such as Landcare have been tried to overcome these problems, but have not always addressed farmer concerns^[13]. The declining terms of trade for agriculture have required farmers to increase their production in order to remain viable. The resultant stress has reduced the time and resources needed for farmers to participate in NRM. This further demonstrates the inter-wovenness of the social, environmental and economical dimensions^[12,14,15].

Commercial and industrial forests in Iran make up less than 1% of the nation's agricultural land. Moreover, in 1962 two times the area of today existed. In other words, out of 30 million hectares of untouched forest in 1962, approximately 2 million hectares remains the same, 17 million hectares have been completely destroyed and approximately 11 million hectares ruined or on the verge of ruining^[16]. Destruction, ruin and erosion of natural resources in the past decades are an obvious warning that these natural resources, a vital foundation, are in the process of extinction. This inauspicious phenomenon requires the constant struggle on the part of the millions who have a major connection with these resources. To attract this group and gain their participation special methods, policy and positive effective functions are necessary. Moreover, to achieve the biggest step it is necessary to delight public culture through publication of values and vitality of this resource. Agricultural and Natural Resources sustainable development and the enlightenment of the public's view towards preservation, improvement and principle exploitation of natural resources. By this, when no officials feel capable enough of improving natural resources all around the country with the existing facilities they must seek to people's participation in preserving and improving natural resources and disseminate related knowledge and technology among them through Natural Resources Extension Education (NRME). Through NRME, its

correct use should be taught and different methods for using them properly should be put at the public's disposal. Preservation and improvement in this regards must also be according to policies as well as the five steps in NRME as: awareness, preservation, development, exploitation and reparation of natural resources.

This study describes the emergence, development and functions of ENGO and addresses their role and impact in Natural resources Management Extension (NRME) in Iran. The study also attempts to describe the collaboration and support of government organizations managing natural resources, mainly National Forest and Pasture Organization (NFPO) and Environmental Conservation Organization (ECO) and locally based NGOs in this country.

MATERIALS AND METHODS

Quasi-Experimental research method is used in this research. Statistics population used concern 1020 board members of 204 registered ENGO who were invited to participate in the research meeting in specific date at Dr. Javanshir Educational Center, from which 387 board members from 65 ENGOs participated. Data on the profile members were collected using questioner in this meeting. The participants were asked to respond to 60 research questions. The reliability coefficient (Cronbach alpha) of research instrument was measured as $\alpha=92.17$. For this purpose, a randomly selected sample of 15 registered ENGOs in Tehran was used. In this research, 18 independent variables and one dependent variable were measured. Independent variables categorized into two groups. The first group was made up of 11 characteristics of ENGO board members (i.e. their age, sex, educational level, major of study, membership record, main occupation, type of goals and motives, type of cooperation with ENGO, awareness about their ENGO activities at international level and awareness about of ENGOs activities. The second group, consist of seven ENGOs characteristics such as their amount and type of securing financial resources, political conditions existing in the country, means of ENGO communication, problems within ENGO, organizational problems outside ENGO and relationships with NFPO and ECO.

Dependent variable in this research was participants' attitudes toward the level of their NGO's success in NRME. This variable was divided in five levels as: Natural Resources Awareness Extension Education (NRAEE), Natural Resources Preservation Extension Education (NRPEE), Natural Resources Development Extension Education (NRDEE), Natural Resources Exploitation Extension Education (NRMEE) and Natural Resources Reparation Extension Education (NRREE). Attitudes of participants were measured based on Likert's scale (1=very low, to 5=very high) due to the ordinal nature of this variable.

The statistical methods used in this research consist of two parts:

- * Descriptive Statistics consisted of central tendencies and discrepancies of variables
- * Inferential Statistics through which the following methods were used:
- * Non-Parametric One Way Analysis of Variance (ANOVA) in searching the effect of independent variables on levels of the dependent variable and
- * Multiple Regression Analysis to measure the independent variables' impact on levels of the dependent variable.

RESULTS AND DISCUSSION

Descriptive findings: Over 32% of NGO's studied were registered during 1990-97 and 67.7% were established after 1997. Therefore, their approximate average age is 7 years. Furthermore, 33% of NGO's studied were registered through the Internal Ministry, 15.4% by the Office of National Firms Registrar, 4.6% by National Youth Organization, 9.2% by other organizations like National Research Organization. However, up until this research, 33.8% of NGO's studied had not been registered. In addition, scientific and extension activities refer to attendance in seminars, paper presentation of at seminars, publication of educational posters and publication of articles in local and national and even local newspapers and magazines. Moreover, until now approximately half of the NGO's studied have not published any type of posters but on the average they have published articles in 1-5 newspapers or magazines. Out of these organizations, on the average 66.7% were attended in 1-5 scientific seminars and approximately half of these organizations until now have not presented an article at any seminar.

The average age of ENGO members of board of directors is 32 years with a majority of them being 20-25 years old. These findings show the lack or limited presence of experienced and aged people in these organizations, although, the high presence of the young generation can be a factor and important motivation for innovation.

Approximately 59% of the respondents were male and 41% female, moreover, as witnessed women's presence in the organization is desirable and perceptible and can be considered a positive cause for the development of women's affairs, especially women's role in development. In the study, 40% of those studied had a specialty such as in mechanics, architecture, medicine and midwifery. Another 21.5% have an education related to the environment, with the remaining possessing various other specialties. Among respondents, 55% had a government job e.g. university professor, employee of the NFPO, employee of the Environmental Conservation Organization (ECO), employee of a Research Center and/or educator. While,

18% were students and 12.31% were self-employed. These results approve the findings of the research done by Office of the United Nation's Development Programs (UNDP) in Iran, where a majority of ENGO members are government workers. Of those studied, 42% had a 1-3 year past membership age in the ENGO, 45% possessed 4-6 years, 11% possessed 7-9 years where only 2% possessed over 9 years membership in the ENGO. The average membership of those studied is 1.8 years, which clearly states how young these organizations are in Iran. Furthermore, 65.5% of the respondents stated their goal as of natural resources and environmental conservation while, 43.5% stated interest in participating in public activities. However, in light of this, 59.9% of respondents stated their major motives for the establishment of ENGO is natural resources as well as and environmental conservation by themselves. While 66.7% stated their main goal as motivating public participation in environmental and natural resource conservation and 28.5% of those studied stated their goal as a type of cooperation with their own ENGO and participation in public ceremonies. In addition, 24% stated their goal as undertaking the implementation of activities, 21.8% implementation of education and extension activities and 18.4% undertaking research activities, while the remaining stated other types of activities as their goal for cooperation with their own ENGO. The average amount of ENGO member's cooperation with their own organization is 64.2 hours a month and a majority of it pertains to the classification of 1-50 hours a month.

Over 63% of the respondents stated their means of communication with people as in person meetings, while other means of communication were radio, television, publications, with e-mail being the last in line with 6.2%. The respondents viewed the effects of using television and publications for propagating their organization as very positive, 69.2 and 59.5% accordingly. NGO's sources of funding according to priority are as follows: membership fee, government financial assistance, member's investment, participation in profitable projects, publications, sales of goods produced by ENGO.

Furthermore, 24% of respondents stated the amount of its own NGO communication with NFPO as a constant issue for preservation, development and exploitation of natural resources as nothing to very low, with 32.3% as an average and 43% as a high. On the other hand, 6% of the respondents stated the effect of this organization upon its activities as low, 32% medium, 40% high and 22% as very high. Moreover, respondents stated that the above organization used their expert's advice minute and rarely.

On the other hand, 7.7% of the respondents believe that ECO effect upon their own NGO was very low; another 7.7% stated low, 20% medium and 64.6% stated high. The average belief in this regard was a close to high (3.7 out of 5).

Table 1: Priority classification of ENGO level of success in their NRAEE activities

NRAEE activities	Mean *	S.Dv.	C.V.	Priority
Introducing different natural resources to civilians and rural	3.708	0.842	22.7	1
Informing civilians of resources role in society's survival	3.785	0.910	24	2
Informing civilians of natural resources role in environmental conservation	3.892	0.937	24	2
Stating the importance of and civilian participation's role upon the countries natural resource management	3.692	0.900	24.3	3
Recognizing the role that this source may have upon inexhaustible natural resources	2.969	0.770	26	4
Informing civilians of natural resources role in decreasing pollution	3.677	0.970	26.4	5
Recognizing non stability production patterns that destroy the environment	3.200	1.019	31.8	6
Recognizing natural resources role in entrepreneurship development	3.00	0.984	32.8	7
Recognizing natural resources role in different steps of economic-social development	3.00	1.104	36.8	8
Recognizing reasonable usage patterns for sources in production plans	2.892	1.077	37.4	9
Recognizing natural resources role in agricultural development	3.062	1.171	38.2	10
Recognizing natural resources role in non-petroleum export development	2.862	1.184	41.2	11

*1=very low to 5=very high

Table 2: Priority classification of ENGOs level of success in their NRPEE activities

NRPEE activities	Mean*	S.Dv.	C.V.	Priority
The implementation of group movements for natural resource reservation and mountain environments	3.754	1.016	27	1
Discovering and finding pollution producing centers that cause damage to natural resources	3.354	1.096	32.6	2
Warning against the danger of population increase and its results upon natural resources	3.196	1.206	36.6	3
Efforts for the prevention of construction projects that cause harm to natural resources	2.985	1.125	37.6	3
Publishment of publications and posters relating to natural resource preservation	3.092	1.208	38	4
.....warnings of the necessity for constant preservation of natural resources	3.154	1.326	41.8	5
Cooperation with the government sector for establishment of policies for the correct use of natural resources	2.821	1.193	42.2	6
Relating news regarding polluting centers and their damages to natural resources	2.982	1.264	42.3	7
Participation in educational plans for natural resource preservation	2.954	1.419	48	8
Prevention of sewage and industrial, civil and domestic penetration into rivers	2.262	1.417	62.6	9
Encouragement of natives living in forest lands to prevent wood smuggling activity	2.047	1.595	77.9	10

*1=very low to 5=very high

Table 3: Priority classification of ENGOs level of success in their ERPEE activities

ERPEE activities	Mean*	S.Dv.	C.V.	Priority
Alteration of the towns people and villagers general culture and better use of natural resources	3.291	1.320	40.1	1
Encouragement of civilian (exploitation) of pastures for the revival of damaged pastures	2.538	1.336	52.6	2
Education of correct water usage and better use of water resources	2.462	1.393	56.5	3
The planting of trees to revive forests	2.708	1.693	62.5	4
Encouragement of people (exploitation) for the revival of damaged forests	2.585	1.667	64.4	5
Compilation of effective education methods for revival plans of forest and pastures	1.769	1.320	75.0	6
Cooperation for cultivation and seeding in pastures	1.769	1.412	79.8	7
The collection of seeds from the forest for re-plantation	1.815	1.570	86.5	8
The collection of seeds from pasture for re-plantation	1.631	1.353	88.4	9
Summoning public participation for reconstructing pastures after disasters	1.446	1.403	97.0	10
Offering suitable education to pastures exploiters with cooperation of Forestry Organization	1.554	1.521	98.0	11
Summoning public participation for reconstructing forests after disasters (floods, fires)	1.492	1.480	99.3	12
Offering suitable forest education to exploiters with cooperation of the Forestry Organization	1.569	1.610	103.2	13

*1=very low to 5=very high

However, 3% of the respondents stated that ECO did not utilize any of their expert's advice. In addition, regarding this, same issue 60% stated low, 23% medium, 12.3% high and 1.7% very high with the average being low (2.3% out of 5).

The ENGOs extension role regarding their success in NRAEE in introducing various natural resources to people to improve non-oil exports had a Coefficient of Variability (CV) of 4.5 which placed this effort at last priority settings (Table 1).

The level of success of ENGOs in NRPEE and the commencement for the groups' activities gained CV=27 and placed at first priority settings. While the encouragement of native people living in forestry zone, towards the prevention of wood smuggling activities gained CV=77.9, as the last priority setting.

In general, the average level of ENGOs success in NRPEE ranked at medium (3 out of 5) with a maximum of 3.75 and a minimum of 2, which is under the expectancy level (Table 2).

Table 4: Priority classification of ENGOs level of success in their NRDEE activities

NRDEE activities	Mean*	S.Dv.	C.V.	Priority
The use of students in natural resource development	3.385	1.128	33.3	1
The use of volunteer forces for cultivation and tree plantation on special occasions	3.308	1.274	38.5	2
Summoning organizations and institutions for pasture expansion	2.462	1.017	38.4	2
Creating motivation for planting and breeding trees	3.015	1.269	42	3
Summoning civilian participation for pasture expansion	2.723	1.153	42.3	4
The education of forest and pasture development methods by publishing poster and brochures	2.723	1.329	48.8	5
Summoning civilian participation for forest expansion	2.538	1.288	50.7	6
Development and increase of herbal coverage around cities to prevent desert expansion	2.985	1.526	51	7
Summoning organizations and institutions participation for forest expansion	2.338	1.228	52.5	8
Cooperation in artificial forest development	2.738	1.544	56.4	9
Recommendation for social laws that encourage people towards natural resource development	2.077	1.229	59.1	10
Shrub and seed planting in deserts	2.369	1.442	61.6	11
The use of religious leaders for Islamic view points regarding planting trees and environmental preservation	1.723	1.576	91.4	12

*1=very low to 5=very high

Table 5: Priority classification of ENGOs level of success in their NREEE activities

NREEE activities	Mean*	S.Dv.	C.V.	Priority
Education the correct use of forest areas for recreation	2.328	1.162	49.7	1
Education the correct use of parks and other natural sites	1.815	1.357	74.7	2
Research for the correct use of forest harvesting	1.138	0.966	84.8	3
Education of the harvest methods and use of herbal and industrial drugs	1.338	1.020	76.2	4
Research for appropriate methods of processing pasture products	0.954	0.837	87.7	5
Research for the correct methods of processing forest products	1.138	1.014	89	6
Research for the correct method of harvesting pastures	1.123	1.038	92	7

*1=very low to 5=very high

Table 6: Comparing NRME activities of ENGOs

Extension activities	Mean	Priority
NRAEE	3.31	1
NRPEE	2.97	2
NRDEE	2.65	3
NRREE	2.05	4
NREEE	1.41	5

*1=very low to 5=very high

NGOs success in NRDEE and the effort for cultural change amongst civilians and rural for the better use of natural resources gained CV=40.1 and set it as the first priority in the settings. Forestry Exploitation Extension Education by NFPO gained the last priority (CV=103.2). In average, level of NRDEE success of ENGOs was low (2 out of 5) with a minimum of 1.4 and maximum of 3.3 (Table 3).

It must be noted that the ENGOs success in NRDEE with the use of college and high school students was at medium level (3.3 out of 5) and set as the first priority (Table 4). Moreover, the level of ENGOs success in NREEE for disseminating proper methods for utilizing forest gained CV=49.7.

In general, the average rank of ENGOs in NREEE was 1.4 (out of 5) with a minimum of 0.9 and a maximum of 2.3 (Table 5).

Different levels of ENGOs natural resource extension education activities were classified according to priority settings by the ENGO members are as follows: NRAEE, NRPEE, NRDEE, NRREE and NREEE. In addition, the average rank of natural resource extension education activities performed by the ENGOs on different levels was close to medium (2.57 out of 5) which is not satisfactory (Table 6).

Table 7: Correlation between ENGOs variables and level of success in their NRME activities

Variable	r	P
Age	-0.389	0.001
Level of education	-0.088	0.242
Membership record	0.116	0.177
Amount of members cooperation	0.0611	0.314
Awareness of domestic ENGO activities	0.012	0.462
Awareness of international ENGO activities	0.112	0.185
Amount of ENGO fund	0.260	0.018
Problems within ENGO	-0.354	0.002
Problems outside ENGO	0.141	0.131

To measure the degree at which variables in this study were correlated, Spearman Rank Correlation Coefficient was calculated due to the ordinal scale of the dependant variable (Table 7). As a result, out of nine hypotheses assigned for correlation between variables, three hypotheses were justified as follows.

1. Correlation between members age and level of ENGOs success in NRME was statistically significant at P=.01 level (r=-0.39). Therefore, it can be can state that the younger the member of NGOs the higher the level of their success in NRME.
2. Calculating correlation coefficient between the amount of financial security and level of ENGO success in NRME revealed that at 99% level of confidence there was a positive relationship between the two variables (r=0.2601, P=0.01).
3. The study of correlation between organizational problems within the NGO's and level of their success in NRME showed that between the two variables there was a statistically significant

negative correlation ($r=-0.354$, $P=0.002$). Other words, the more internal problems in NGOs, the less their success in NRME which is not far away from expectations.

Table 8: Independent variables role upon ENGOs success in their NRME activities

Independent variables	χ^2	p
Educational level	3.929	0.559
Main occupation of member	0.423	0.809
Type of member cooperation with ENGO	3.966	0.815
Type of communication used	2.553	0.924
Members' goal and motivation	11.938	0.007
Amount of cooperation with NFPO	10.689	0.030
Amount of cooperation with the ECO	12.425	0.014
Present political conditions	5.141	0.161
Providence where activity occurred	9.468	0.050

Inferential findings

The role of independent variables upon dependent variable: To study the impact of independent variables (i.e. members characteristic) upon dependent variable, tests to comparing means of different respondent groups was used. For the comparison of two independent groups, Mann Whitney U test and for several independent groups, Kruskal-Wallis test were used and results can be found in Table 8 and are discussed as follows:

1. The study of impact of having connections with NFPO showed significant effect on NGOs Success in their NRME mission ($\chi^2=10,689$, $P=.03$).
2. As far as statistics are concerned, the study of the effect of having connections with ECO showed statistically significant effect on ENGOs level of success in NRME activities ($\chi^2=12.425$, $P=.014$).
3. Calculation of the effect of members' goal in ENGO upon their ENGO level of success in NRME showed that their members' goal has a positive significant effect upon NGO's mission ($\chi^2=11$, $P=.07$).
4. For researching the effect of NGO providential activities upon success in their NRME activities, using none-parametric one-way analysis of variance showed that there was a significant difference between provinces ($\chi^2=9.4$, $P=.05$).
5. The study of the effect of member's sex upon ENGOs natural resource extension activities success was carried out with Mann-Whitney U test. This study showed a significant difference between men and women's success in ENGO in terms of their activities in NRME ($U=343$, $P=.01$).

In addition to the above, for the assessment of 9 independent variables impact upon dependent variable stepwise Multiple Regression equation was utilized, showing the age of members as the variable with the highest effect upon NGOs' success in NRME and was

entered into the equation in the first step. As a result, it showed that this variable alone explains 29% of the variance in the above dependent variable. In the next step, the problem within the organization of NGO's variable was entered into the equation. In this case, this variable was able to explain 20% of variance in the dependent variable. Determinant coefficient of $R^2=.291$ means that 29.1% of variance in dependent variable can be predicted by variables of age and NGOs' internal problems.

RECOMMENDATIONS

In light of the research findings, its recommended that:

1. Government Organizations should handle internally and or internationally funded and technically sponsored NRME projects through the accredited linked ENGOs.
2. NGO's corporation should articulate and submit appropriate acts and legislation to the government for protecting ENGOs against intervening circumstances and supporting, them in enhancing people participation in NRME.
3. Environmental Non-Governmental Organizations should try to hire a NRM ad hoc as well as an administrative committee and use their advice to improve their NRME activities.
4. ENGOs should be linked to internal, regional and or international Networks to upgrade regularly and try to increase the number of their members to secure their needs from different aspects. At the same time instead of relying upon particular key persons in funding the NGO, seek for funds from governmental and international resources.
5. ENGOs should concentrate more on planning and encouraging youth participation in preservation, improvement, development and infrastructure of natural resources.
6. To have better access to ENGOs for monitoring, helping them In achieving their mission, and conducting follow up research they should be assisted in getting suitable office space and even the meeting place for their gatherings by the organizations in charge of NRM such as NFPO and or ECO.

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