

Opinions of Education Administrators and Teachers on Vegetation Geography: Comparative Case Study*

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ABSTRACT Vegetation geography subjects are believed to be barely taught in secondary schools. Yet it is a major defect in terms of environmental education. The assessment of opinions of senior administrators, high school principals, and geography and biology teachers has a high significance to eliminate such defect. In this study the qualitative research method was used. Semi-structured interview was done to gather the data and the content analysis was employed. While there is a small number of studies on vegetation geography in Cyprus, there is none on such education. The existing studies have botanical basis and thus do not have the nature to be interpreted from environmental elements and geographical aspects. The limited vegetation subjects given in the geography and biology text books are far from reflecting the interaction of natural vegetation of Cyprus with climate, land forms and human factors. Opinions stated in the study shows the importance of vegetation geography in North Cyprus. This study is the first in the literature.

INTRODUCTION

Understanding environmental factors and their interactions are questioned by many scientific researchers throughout history. Many studies were and have still been prepared in order to explain these not so easy to understand relations. The environmental factors include non-living factors as water, soil, wind, gravity, temperature, and living factors as plants, animals and micro-organisms. The environmental factors are among the subjects that many disciplines directly work with. The factors such as wind, temperature, rain etc. are dealt with in climatology, the organisation of living in terms of their relation levels are the subject of taxonomy. The environmental relations are mainly the subject for ecology. Ecology is the study for analysis of interactions among organisms and their environments. The main objective of ecology is to generate all information about organisms and their environment and identify the relation between organisms and environmental factors. Therefore it is able to understand the reactions of organisms towards environmental factors. Vegetation means the assemblage of same or very similar plant species, from the perspective of their ecological requirements, in a specific area (Kilinç 2005). Vegetation geography is the study that research the distribution of such plant species in the world on the

basis of various climate zones. There are very few number of studies on the identification of vegetation in North Cyprus. The majority studies are mainly floristic and do not include the direct identification of vegetation (Viney 1992, 1994).

The study on the identification of attitudes of secondary school students in North Cyprus towards forests is the first study on vegetation education. That study determined that when male students are compared with female students and public schools with private schools, female students and students in public schools have more positive attitudes towards forests. The study recommends the reinforcement of information that the students have about forests (Özbas 2013).

The identification of factors and conditions for vegetation geography, as determination of current effective ecological conditions, registration of formations and existing status of formations in Cyprus, assessment of floristic characteristics and impacts of geographical environmental conditions on acquiring such characteristics and changes of environment conditions in time are among the major problems of the island. Another significant problem is the identification of attitudes and opinions of senior administrators, high school teachers, and geography and biology teachers working under the Ministry of National Education (Ilseven 2014).

The opinions of education administrators and teachers in North Cyprus regarding the Cyprus vegetation geography are considered for the identification of various approaches on the subject. The introduction of different dimensions of subject in line with the methods, attitudes and approaches used by the senior administrators, principals, geography and biology teachers regarding the development of vegetation geography lessons in schools is considered as important in order to determine the activities that are accepted and unaccepted by the education administrators and contribute to the lesson development.

The aim of this study is to identify the current situation of vegetation geography education in North Cyprus and contribute the North Cyprus education system with the results. The second question is asked by targeting the biology subjects in order to identify the opinions of biology teachers on the lesson. The same question is asked to the geography teachers in the scope of geography lesson subjects and ensured the provision of opinions of both parties on their lessons.

The following subjects were taken under research to reach these general aims:

- 1) What is Vegetation (Plant) Geography? What do you know on this issue? What are your opinions?
- 2) Are vegetation issues given sufficient place among (biology) and geography subjects? What are your opinions about this issue?
- 3) What activities do you perform about vegetation? What kind of activities do you organize in order to raise the awareness of students about vegetation?
- 4) When included under the education in a comprehensive way, what are the benefits on students and society? Write your opinions.

METHODOLOGY

Research Design

Qualitative research approach is used for the research. There is no direct study on vegetation geography education in the literature. Case study is selected as the research design and interview questions prepared as semi-interview forms are used as data collection tool. The opinions of education administrators and teachers on vegetation geography and factors forming such opinions are determined as case.

Study Group

For this research, the study group is determined in accordance with the snowball sampling, which is one of the purposive sampling methods. This approach is widely used to acquire comprehensive data on the selected problem (Tavsancil and Aslan 2001; Yildirim and Simsek 2013). The data for this study are collected from total 40 participants selected from senior administrators, principals, geography teachers and biology teachers. The participants were deemed as appropriate since the most of data can be collected from these people by means of sample selected through this way. Participants from each town of North Cyprus are included in the study to generate different views. Table 1 reflects the participant status.

Table 1: Participant status

<i>Participant status</i>	<i>SeniorHigh admistra- tor</i>	<i>High school prin- cipal</i>	<i>Geogr- aphy teacher</i>	<i>Biology teacher</i>	<i>Total</i>
<i>Town</i>					
Nicosia	10	2	2	4	18
Kyrenia	-	5	3	2	10
Famagusta	-	-	3	2	5
Morphou	-	1	1	2	4
Yeni Iskele	-	2	1	-	3
Total	10	10	10	10	40

Data Collection Process

Interview technique, one of the qualitative research technique, is used in this study. Interview technique is addressed in three ways which are classified as structured, semi-structured and non-structured interviews. In semi-structured interviews, questions are determined beforehand and data are collected (Karasar 1998; Yildirim and Simsek 2013). As this method is not as rigid as fully-structured interviews but not flexible as structured interviews. Therefore semi-structured interview is used for data collection.

In order to ensure the internal verification of interview form, two different experts in the field were given their opinions. Following the assessment of experts, some adjustments were made on the clarity of some questions and similar questions were eliminated from the interview form. After all the adjustments, the final version of form

was prepared. Subsequent to the pilot interviews conducted with five people that randomly selected, the clarity of questions and match of answers with questions were identified.

The data were generated between 01 December 2013 and 31 December 2014 through the interviews conducted face-to-face with teachers generally in the teachers' room. The interviews were conducted with 40 minutes periods and face to face with the participants. The interviews with the senior administrators were performed in their own rooms at the Ministry of National Education. The opinions of senior administrators, principals, geography and biology teachers on Vegetation Geography in Cyprus were sought to be assessed through the interviews.

Data Coding and Analysis

The data, that were collected to identify the opinions of education administrators and teachers regarding vegetation geography by using semi-structured interview technique, were analysed by content analysis technique; a qualitative data analysis approaches recommended by Strauss and Corbin (1999). The data, analysed by using this approach, were conceptualized and then rationally organized to ensure the determination of themes that explains the data (Yildirim and Simsek 2013). The data that were collected from the participants, were organized in the way to constitute a meaningful whole and these sections were named and coded. The data that were excluded from the research questions, were also excluded from coding. Deductive approach was used for the determination of themes through the answers of education administrators and teachers. After the coding of all data, a list of codes were prepared and control of data organisation were established. For the determination of security, the answers of education administrators and teachers were reviewed with researchers and a field expert, thus "Agreements" and "Disagreements" were identified. The matrix developed by Miles and Huberman (1994) P (Percentage of Consensus %) = $[Na \text{ (Agreement)} / Na \text{ (Agreement)} + Nd \text{ (Disagreement)}] \times 100$ was used and P was found as 90 percent. The value of P above 70 percent is an indicator showing that the research is reliable. Therefore the findings of this study is accepted as reliable.

Determination of Themes

At this phase, each of the codes determined during the data coding was accepted as a different category and assessed as separate themes. The themes were identified by using the existing study.

Organization and Identification of Data to Codes and Themes

The opinions of participants were explained in the way that the reader may understand and opinions were presented to the reader from the first hand. Footnotes were used in order to identify which interview notes belong to whom and interview notes were given in quotation marks. Then the participant of that interview was noted in parenthesis. The coding system is given in the following example explanations:

- Example-1: "....."(UY(1)) means Senior Administrator of Ministry with code number 1;
- Example-2: "....."(OM(2)) means School Administrator (Principal) with code number two;
- Example-3: "....."(CO(4)) means Geography Teacher with code number four;
- Example-4: "....." (BO(2)) Biology Teacher with code number two.

FINDINGS

The research presents the outcome as a result of the assessment of opinions of senior administrators of Ministry of National Education, high school principals of secondary schools, geography and biology teachers regarding Vegetation Geography of Cyprus education. The method was considered as appropriate since it enables to make a numeric analysis of quantitative data, briefly digitisation, improve the reliability of research, minimize subjectivity, compare themes and categories. Yet the quantitative data in the research was converted to percentages and given as tables. Also the opinions of participants were pursued to be presented from every dimension.

I. Dimension: Identification the Knowledge on Vegetation Geography

The first dimension of research constitutes the measurement of knowledge of participants regarding the vegetation geography. 40 participants were asked what they know about vegetation geography and their opinions were identified. The opinions of participants were identified under the percentages and themes stated in Table 2 and given opinions were presented additionally. The participants that are senior administrators of Ministry have 10 percent knowledge on vegetation geography whereas 90 percent of them mentioned that they do not have any knowledge or make any remarks. The senior administrators delivered their opinions as “*I do not have sufficient knowledge (U2)), (UY(1)).*” The senior administrator, who has knowledge on vegetation geography defines it as “*the study that analyse the distribution of plant communities in the world and conditions affecting this distribution (UY(10))*”. Since this senior administrator has a geography background, the percentage among senior administrators might be much lower.

The responsiveness percentage of school administrators to the question on their knowledge of vegetation geography is much higher with 40 percent than senior administrators. However; among the group, some said OM5(*School Administrator 5 code*) *I do not have detailed information*” and “*OM8 I know what I learnt from the university, I think that the students and teachers should be informed on the subject*” and noted that in-service training is required. OM1 from the members of group defined the vegetation geography as “*the study analysing the distri-*

bution of plants and reasons for the distribution and the relation with the world”.

The percentage for knowledge of geography teachers on vegetation geography is 80 percent. More scientific definitions were used in this group and they even mentioned about the environmental conditions that have an impact on vegetation. CO3, who defines the vegetation geography as “*the study that analyses the distribution of plant communities, factors that have an impact on the distribution, and their interactions with climate, surface forms, human, animal, plant, soil and other environmental factors*”, goes into detail and shows how much geography teachers are related with the issue. Similarly CO1 defines vegetation geography as “*a complete system analysing the distribution of plants in accordance with the environmental factors and underlines that climate, surface forms and human factors have the most impact on vegetation geography*”. This shows that he/she has more detailed information on the issue. Consequently, when we look through II. Theme as the percentages for having a complete knowledge on vegetation geography, the ones that have a knowledge on vegetation have a complete knowledge on the issue. 100 percent of the ministry administrators and school administrators with the knowledge have detailed information regarding the issue while this percentage is 50 percent for the geography teachers. During the interviews, it has found out that geography teachers have not ever attended to any course or seminar concerning vegetation geography. Since geography teachers have not participated to any in-service training on this issue, the rate has stayed at 50 percent.

The knowledge rate for biology teachers on vegetation geography is 100 percent. This group

Table 2: Knowledge on vegetation geography

Themes	Senior administrator of Ministry			School administrator (Principal)			Geography teacher			Biology teacher		
	Have	Don't have	%	Have	Don't have	%	Have	Don't have	%	Have	Don't	%
Having knowledge on vegetation geography	1	9	10	4	6	40	8	2	80	-	-	-
Having a complete knowledge on vegetation geography	1	-	100	4	-	100	4	4	50	10	0	100

showed that they possess a knowledge on the issue.

(BO6) stated that, *“Vegetation geography is a study that analyse the lives of plants in specific areas, structural characteristics, habitats and distribution of different plant varieties. I think that there should be more activities about plants. The lessons should include more observation based and extra curricular activities in order to ensure that students explore the endemic plant varieties and endangered species. Due to the load of curriculum, it is not possible to include such activities. I also believe that the Ministry should organise in-service trainings and contribute the improvement of our knowledge on the plants in Cyprus. In accordance with the opinions, the teachers can be considered as having a knowledge. The reason is that they got courses about these subjects during their university education. Moreover, the teachers also underlines the significance of vegetation geography training.*

II. Dimension: Status of Vegetation Issues in Geography and Biology Lessons

The second dimension of research is to identify the share of vegetation subjects within the geography and biology lessons. Thus, 40 participants were asked regarding the sufficiency of vegetation geography issues in geography and biology lessons to identify their opinions. The opinions of participants were determined within the percentages and themes given in Table 3 and opinions were presented. The senior administrators, school administrators, geography teachers and biology teachers were asked the status of vegetation geography subjects within geography and biology lessons. The 90 percent of participants who were senior level administrators of Ministry agreed that vegetation issues are not given sufficient time and subjects. UY1 states that *“the weekly time allocated for geography lesson is one hour; since there is limited time for geography, no time is allocated for vegetation, another senior level administrator notes that “(UY2) the time allocated for vegetation is not enough. There is no time left for practice.*

80 percent of geography teachers declared that vegetation issues have not sufficient time and place among geography subjects. *“(CO1)*

the time allocated for vegetation geography is so insufficient. Since the period for geography lesson is very limited, no time is left for vegetation geography and practice. “(CO3) Vegetation subjects are not absolutely enough. Vegetation geography is a lesson requiring practice. Therefore it should be either taught as a separate lesson or allocated more time”.

Forty percent of school administrators agree that vegetation geography issues have sufficient time and place within geography and biology lessons. *“(OM5) Since there is not complaint from the teachers that vegetation issues are insufficient, it should be sufficient then”, while “(OM1) It is enough, however, it is possible to overcome deficiencies with essential arrangements, trainings and in-service training courses”.* 60 percent of this group stated that vegetation subjects are not sufficient within geography lesson and the subjects are taught superficially. *“The time allocated for vegetation subjects are not sufficient. Time is a big challenge. Many classes have limited geography and biology lessons. So there is no time left for going to the field to show plants on site. (OM3)”, “(OM8) the time allocated for vegetation issues is insufficient and boring. Since no time is given for practice, the learning is not also complete”.* This presents the opinions regarding the periods for practical activities for plants within geography and biology lessons questioned under II. Theme. Yet 80 percent of Senior Level Ministry Administrators indicate a vegetation education far from practice, this rate is 50 percent for teachers. There is no remark from school administrators on this issue. On the other hand, the education should be in natural environments, practice-based and convertible to daily life uses instead of superficial education.

All biology teachers stated that vegetation subjects are insufficient within biology lessons (BO2) noted that: *“I do not believe that vegetation information provided in YGS Biology is enough. Moreover, since you use the textbooks from Turkey, no information is given on Cyprus. Particularly experimental activities and outdoor observation should be allocated more time. IGCSE and A level biology curriculum include more vegetation issues however this system use the British text books so students graduate without learning anything about the plants of Cyprus and they have no knowledge about the varieties of their own country and*

endemic plants.”In accordance with the opinions, the indications of teachers that IGCSE and A-level biology curriculum have allocated more share to these issues. This system, used in European countries, is very effective to provide vegetation awareness and love to students but the lack of local subjects in biology curriculum of Cyprus cause an obstacle for the students to learn their country’s vegetation.

III. Dimension: Sensitivity Levels of School Administrators and Teachers Regarding Vegetation

For the determination of sensitivity levels, the participants of research group have been asked of their opinions regarding their sensitivity levels on vegetation. Table 4 represents the percentages and opinions under the themes.

The participants have been asked regarding the vegetation in order to identify the sensitivity levels of school administrators and teachers. 40 percent of senior administrators were identified as sensitive and one of the participants noted”(UY1) *there is a major effort of school administrators and teachers about vegetation geography. There is also forestation efforts with the contribution of the Ministry of National Education. Although it is not that much, I believe that they are sensitive concerning vegetation;* which indicates that not only teachers and school administrators but also ministerial authorities have responsibilities on this issue. Another senior administrator said: “*Geography teachers and some of the school administrators are sensitive, they work on plants but some of them don’t. They do not spend any time on the subject.*” The answers of school administrators to the same question show that their sensitivity levels towards vegetation is 50 percent and 10 per-

cent more when compared with senior administrators. One of the school administrators said: “(OM3) *Some are sensitive on vegetation while some are not; generally biology and geography teachers are more sensitive*”. Despite of the opinions by school administrators, the sensitivity levels of geography teachers regarding vegetation geography is 30 percent that is the lowest rate among this research group. Yet when one of the geography teachers were asked the related question, the answer is;”(CO8) *I do not think that school administration and geography teachers are sensitive about vegetation geography; the existing plants in the school are not even taken care of and no required effort is given to protect them as well*”. All of the biology teachers expressed that they are sensitive to vegetation issues. (BO4) stated that, “*Theoretical information that are included in the curriculum is taught and when possible, field activities should be performed in order to habitats and characteristics of plant varieties. Moreover, in order to make students learn about the plant varieties of Cyprus, project competitions should be organised both at the school and ministerial level so that there would be more activities to improve the knowledge and sensitivity of students. There are no such activities in the schools now*”. All of the biology teachers stress that there are no such activities in the schools and teachers also need in-service training regarding the relevant subjects. Biology teachers were identified as the most sensitive group when compared with the other participants.

IV. Dimension: Benefits to be Generated When Vegetation Geography is Included in Education

The fourth dimension of research is to determine the benefits that would be generated if veg-

Table 3: Status of vegetation issues in geography and biology lessons

Themes	Senior administrator of Ministry			School administrator (Principal)			Geography teacher			Biology teacher		
	Suffi- cient	Insuffi- cient	%	Suffi- cient	Insuffi- cient	%	Suffi- cient	Insuffi- cient	%	Suffi- cient	Insuffi- cient	%
Status of vegetation issues in geography and biology lessons	1	9	90	4	6	40	7	3	70	-	10	100
The periods for practical activities for plants within geography and biology lessons	2	8	80	-	-	-	5	5	50	-	10	100

Table 4: Sensitivity of school administrators and teachers regarding vegetation geography

Themes	Senior administrator of Ministry			School administrator (Principal)			Geography teacher			Biology teacher		
	Sensi- tive	Insen- sitive	%	Sensi- tive	Insen- sitive	%	Sensi- tive	Insen- sitive	%	Sensi- tive	Insen- sitive	%
Sensitivity of school administrators and teachers regarding vegetation geography	4	6	60	5	5	50	3	7	70	10	-	100
Sensitivity regarding vegetation geography independent from geography and biology lessons	2	8	20	1	9	10	4	6	40	10	-	100

etation geography is covered by the education. In order to identify this, 40 participants were asked about what benefits would be generated if vegetation geography becomes a part of education.

The opinions of senior administrators, school administrators and geography teachers regarding the benefits to be generated when vegetation geography becomes a part of education were determined under the percentages and themes given in Table 5.

60 percent of senior administrators stated that when vegetation geography becomes a part of education, environmental awareness would im-

prove. This percentage is 50 percent for geography teachers and 90 percent for school administrators. One of the senior administrators noted as "(UY3) if vegetation subjects become a part of education, then there would be an improvement among individuals to find the ways far from materialistic world, discover the stress-free and relaxing aspects of natural life, learn some ideas on healthy living, improve the environmental awareness, get the ownership of environment, protect and develop the environment." A school administrator among study group that if vegetation geography becomes a part of education,

Table 5: Benefits to be generated when vegetation geography is included in education

Themes	Senior administrator of Ministry			School administrator (Principal)			Geography teacher			Biology teacher		
	Incre- ase	No com- ment	%	Incre- ase	No com- ment	%	Incre- ase	No com- ment	%	Incre- ase	No com- ment	%
Status of environmental awareness	4	6	60	9	1	90	5	5	50	10	-	100
Uses of the plants for different purposes	2	8	20	1	9	10	2	8	20	10	-	100
The interest and love towards plants	5	5	50	8	2	80	6	4	60	10	-	100
The sensitivity towards protecting plants	3	7	30	4	6	40	4	6	40	10	-	100
Recognition of plants by students	-	-	-	-	-	-	-	-	-	10	-	100
Ownership to ecological culture	-	-	-	-	-	-	-	-	-	10	-	100
Increase in organic farming	-	-	-	-	-	-	-	-	-	10	-	100

“(OM4) there would be an improvement towards natural plants and environment, it would have a major impact for us to understand the value, meaning and importance of plants. Therefore I think that it would make a contribution to establish a perception that would make us take the necessary measures to protect and maintain the vegetation of our territories. A majority of geography teachers stated that such practice would improve the interest and love towards plants and with such improvement the instinct to protect would develop and environmental awareness would improve. As one of the geography teachers said”(CO2) Such a lesson covering the vegetation issues may increase the interest towards plants. More increase would generate love. Love is the essence of protection”.

From the ancient times, people in Cyprus have used the plants in their surroundings for different purposes. The people of Cyprus utilized some plants to treat or prevent diseases or prepare medicine. Some plants were used as a colouring agent, some for human food and animal feed, and spices, some for their decorative appearance and some for heating and furniture. Recently, wild plants have become a significant aspect of ecotourism. Senior administrators, school administrators, geography and biology teachers were asked about the benefits associated with the inclusion of vegetation issues in education, some of their answers indicated that there will be an increase in the use of plants. Yet, 20 percent of senior administrators and geography teachers noted that there would be an increase in the opportunities to use the plants. A participant from the geography teachers group told that *“(CO5) Such practice would improve agro and eco tourism and make contribution to protect, publicize our endemic and rare plants as well as raise the awareness of society concerning this issue.”*

The participants indicated that with the inclusion of vegetation geography into education, the most impact would be on increasing the love towards plants. 50 percent of ministry administrators, 60 percent of geography teachers, 80 percent of school administrators and all biology teachers stated that as a result of this practice, there would be an increase in their love levels towards vegetation agents. One of the geography teachers from the research group said *“(CO10) After these issues become a part of education, students would be more sensitive towards environment, be aware of the plants*

that they see everyday but not notice, love, have an active role to protect these plants; this would make students be at peace with environment” and stresses the relationship between knowing and loving. Also *“(OM3) through this practice, the love of individuals towards environment would enhance, cut less and plant more trees, protect the natural environment and there would be a significant benefit on students, hence society.”*

All participants have showed with high levels that if vegetation geography becomes a part of education, then the sensitivity towards protecting plants will increase. All of biology teachers, 40 percent of school administrators and geography teachers, 30 percent of senior ministry administrators think that the sensitivity towards plants would improve. One of the geography teachers reflected his/her opinions as *“(CO8) I think that together with the vegetation lessons, the awareness of students regarding this issue would increase and then it would expand to whole society”*. One of the participants among senior administrators stated that *“(UY8) Therefore the students will be informed on biodiversity, learn endemic and rare plants, notice the plants that are one of the significant link in life cycle and start making research to protect them.”*

All biology teachers told that in case of inclusion of vegetation geography into curriculum, the environmental awareness, opportunities to use plants, love for plants and sensitivity to protect plants would improve. In addition to these themes, there are also new themes formed from the opinions of biology teachers. The new themes are listed by the biology teachers as the recognition of plants by students, ownership to ecological culture and increase in organic farming. The existing themes also indicate that biology teachers look from different perspectives. *(BO9) “Covering vegetation issues in lessons would bring benefits to teachers and students such as knowing the varieties in their surrounding, learning more about nature, making research. I believe that it would be a positive step to include it in a comprehensive way. We might learn how to show more respect to plants. Since we mainly live in a human-oriented way, we think what we want is the most important thing. However, if we go like this, world would delete us from itself. Vegetation education would be important to learn how to live in harmony with*

nature, think nature and world before ourselves, look through what nature bring us and hence leave the life to our people but also future generations in a much liveable status, but such education should not be limited to textbooks, it should be supported with field trips and cause and effect relationships should be reflected so that students would be able to internalize the subject.”

DISCUSSION

The participants that are senior administrators of Ministry have only 10 percent knowledge on vegetation geography whereas 90 percent of them mentioned that they do not have any knowledge or make any remarks. Vegetation geography knowledge among school administrators is 40 percent while the group with highest knowledge is biology teachers with 100 percent. Geography and biology teachers mainly use scientific definitions to define vegetation geography and mention the environmental condition that have impact on vegetation. As the vegetation geography education increases knowledge about the nature, it also improves the environmental knowledge. Timur et al. (2014) in their studies mentioned the importance of having environmental knowledge. They found that when the teachers' information about environment and nature and curiosity levels increase, their environmental knowledge and behaviors increase positively.

90 percent of participants who are senior administrators of Ministry agree that the time and subject allocated to vegetation issues are insufficient in geography lessons. This percentage is 80 percent in geography teachers, 100 percent for biology teachers in their lessons and 60 percent for school administrators.

While 80 percent of senior administrators point out a vegetation education that is far from practice, this rate is 50 percent for geography teachers. There is no remark from school administrators on this issue. All of the biology teachers stated that there is no practice on this issue. There are also major responsibilities for ministry authorities other than teachers and school administrators.

The awareness levels regarding vegetation geography for senior administrators is 40 percent, 50 percent for school administrators and 30 percent for geography teachers and 100 percent

for biology teachers. Therefore the group with highest knowledge is biology teachers. Özbağ (2013) in her study mentioned that students in North Cyprus have positive attitudes towards forests. As the study is conducted in Nicosia, results cannot be generalised to whole universe. Forests are only one part of the vegetation so attitudes cannot be generalised towards whole vegetation. There is no study in the literature conducted with the teachers' attitudes towards vegetation.

After the inclusion of vegetation geography into education, 60 percent of senior administrators indicated that there would be an increase in environmental awareness. This rate is 50 percent for geography teachers, 90 percent for school administrators and 100 percent for biology teachers. The participants all noted that with such inclusion in education the love towards plants would increase the most. Additionally, there are new themes from the biology participants as recognition of plants by students, ownership on ecological culture and commitment to organic farming. The schools that interviews were conducted, were identified as they do not have sufficient activities in the scope of vegetation education. Gunduz et al. (2015) asserts similar findings upon North Cyprus, Azerbaijan and Turkey stating that a complete educational program starting from preschool and various campaigns should be prepared which can be argued for the case of vegetation as well. Very few schools have some activities to grow plants. Another finding that is to be discussed is that the schools organize day-trips with the primary aim of picnic and leisure instead of introducing nature or bringing new lives to the nature.

CONCLUSION

As a result of this study, biology teachers have the most detailed information about what vegetation geography is. According to their specifications at university education, biology teachers have wider perspective and they also conduct the importance of the subject. Geography teachers are well-informed about the subject too but other participants are not informed.

In second dimension, participants except school administrators agree that the time and subject allocated to vegetation issues are insufficient in geography and biology lessons. They also think that locality is not present in these

lessons because books used in these lessons are not local. A person who doesn't know which flowers or trees are found in his country can not love his nature. That's why the vegetation geography education is very important.

Another finding gathered from this study is that almost any activity is not done about these subjects at schools. Teachers want to make activities in their lessons but they can't make any in order to complete the syllabus. All participants think that there will be positive effects and increase in the environmental knowledge, recognizing plants, loving and protecting them when vegetation geography is added to the syllabus.

Biology teachers are the most aware and they make constructive criticism about the subject then the geography teachers, school administrators and senior administrators of Ministry respectively.

RECOMMENDATIONS

Some suggestions are indicated in the light of the findings gathered from the study:

In order to provide the desired effective environmental education in schools, first of all the teachers should have an environmental knowledge. For a specific subject as vegetation geography, the teachers should have knowledge. Therefore; teachers and administrators should improve their environmental knowledge through in-service training or seminars, because without knowledge it is not possible to teach.

To prevent young people from developing negative attitudes towards plants and animals, the songs and poems imposing to children that forests are just raw materials bound to be cut and used, should be abandoned and the ones that talk about protecting forests and things to be done for expanding them should be carefully selected. There should be also projects on these issues.

It is obvious that the awareness among teachers, students and people that work about this subject such as foresters, agriculturists, landscapers, people selling seedlings and with similar oc-

cupations would be raised through vegetation geography education. To make it possible, a curriculum should be developed for environmental education which covers the vegetation geography education. Since awareness raising is not a short period, the relevant authorities should start working on it as soon as possible. Therefore the future generations would have the awareness on vegetation and environmental issues.

The vegetation geography education should not be provided in superficial environments but it should be practice-based and built together with daily life and make learning permanent. From this perspective; it is recommended that vegetation geography education should be included as an applied subject.

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